The Capacity of Non-Government Organisations to Enhance Peasants’ Livelihoods through Farm Forestry in Indonesia

By

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Certificate of authorship

I, Yustina A. Murdiningrum

Herewith I declare that this thesis is my own work to the best of my knowledge and belief. This thesis contains neither material formerly published by another person without acknowledgement, nor material which has been accepted for the award of any other degree at other educational institutions. Any substantial contribution made to the research by colleagues with whom I have worked at Charles Sturt University or other institutions during my candidature is fully acknowledged.

I agree that the thesis be accessible for the purpose of study and research, especially for the interest of the development of new knowledge through loan and reproduction of the thesis.*

Signature: ___________________________ Date: 10th March 2015

*Subject to confidentiality provisions as approved by the University
English language editor statement

A professional English editor – Ms Louise McManus – was engaged for the sole purpose of improving the use of English language in this thesis. The professional editor did not change the academic content of the thesis.
Ethics approval

The Ethics in Human Research Committee at Charles Sturt University approved the design and data collection procedures for this research (confirmation letter sent on the 28\textsuperscript{th} September 2010 by Julie Hicks, Executive Officer of Human Research Ethics Committee). The protocol number issued with respect to this research was 2010/112.
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Abstract

Non-governmental organisations (NGOs) are important players in shaping Indonesian forest policy and practices, particularly in relation to enhancing the benefits from forestry for rural communities. However, due to a range of complex issues, it is not always clear what is the most effective role the NGOs should play to enhance community forestry (including farm forestry model), particularly so that it leads to community development.

Two case study NGOs (Trees-4-Trees and PERSEPSI) were chosen to explore the extent to which the aim to develop farm forestry meet with peasants’ (small-scale farmers) livelihood strategy, so that it can deliver changes in terms of improved participation level, reduced poverty, reduced deforestation and enhanced timber supply. This study also analysed the challenges faced by, and the potency of, the NGOs in developing small-scale forest enterprises managed by peasants.

My research followed an interpretivist approach and largely drew on qualitative data from a range of key informants. In-depth semi-structured interviews were conducted with a range of relevant interviewees during March-April 2011, with a total of 79 interviewees (of which 65 were peasants). Household-level structured interviews were also conducted to better understand the context for the 65 peasant households. The data collection for this research was conducted in the villages of Bageng and Selopuro, Central Java Province, Indonesia.

The NGOs (Trees-4-Trees and PERSEPSI) have sought to improve the management of peasants’ forestry enterprises, introduce eco-labelling (forest certification) for the sale of timber, and bring in external actors to support the peasants. However, many of the peasants who were involved in the NGOs’ initiatives did not always share the objectives of the NGOs. For example, many peasants did not seek to maximise the financial profits from timber production, had alternate livelihood strategies, and wanted to pursue other land-uses – challenging the prevailing paradigm of small-scale forestry held by the NGOs and donors. Reforming the business approach of NGOs is important if small-scale forestry is to be more widely adopted by peasants in Indonesia.
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<td>ADB</td>
<td>Asian Development Bank</td>
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<td>AFTA</td>
<td>ASEAN Free Trade Area</td>
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<td>AF &amp; PA</td>
<td>American Forest and Paper Association</td>
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<td>AMAN</td>
<td>National Alliance for Customary Community (<em>Aliansi Masyarakat Adat Nusantara</em>)</td>
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<td>AoA</td>
<td>Agreement of Agriculture</td>
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<td>APEC</td>
<td>Asia Pacific Economic Cooperation</td>
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<td>APHS</td>
<td>Alliance of Managers for Certified Forest (<em>Aliansi Pengusaha Hutan Sertifikasi</em>)</td>
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<td>BPS</td>
<td>Statistic Centre Office (<em>Badan Pusat Statistik</em>)</td>
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<td>CAP</td>
<td>Common Agriculture Policy</td>
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<td>CBOs</td>
<td>Community-Based Organisations</td>
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<td>Community Development</td>
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<td>CED</td>
<td>Community Economic Development</td>
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<td>CFes</td>
<td>Community-Based Forest Enterprises</td>
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<td>CIFOR</td>
<td>Centre for International Forestry Research</td>
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<td>CSA</td>
<td>Certification Standards Association</td>
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<td>CSD</td>
<td>Commission on Sustainable Development</td>
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<td>EU</td>
<td>Europe Union</td>
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<td>FAO</td>
<td>Food and Agriculture Organisation</td>
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<td>FC</td>
<td>Field Coordinator</td>
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<td>FKPS</td>
<td>Forum of the Peasant Community for Certification (<em>Forum Komunikasi Petani Sertifikasi</em>)</td>
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<tr>
<td>FMU</td>
<td>Forest Management Unit</td>
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<td>FSC</td>
<td>Forest Stewardship Council</td>
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<td>GMOs</td>
<td>Genetically Modified Organisms</td>
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<td>GNP</td>
<td>Gross National Product</td>
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<td>GROs</td>
<td>Grassroots Organisations</td>
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<td>HTI</td>
<td>Industrial Plantation Forest (<em>Hutan Tanaman Industri</em>)</td>
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<td>ICRAF</td>
<td>International Centre for Research on Agroforestry</td>
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<td>IDR</td>
<td>Indonesia Rupiah Currency (<em>Mata uang rupiah</em>)</td>
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<td>IMF</td>
<td>International Monetary Fund</td>
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<td>ISO</td>
<td>International Organisation for Standardisation</td>
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<tr>
<td>KBD</td>
<td>Village Seedling Plot (Kebun Bibit Desa)</td>
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<td>KPS</td>
<td>Peasant Community for Certification Group (<em>Kelompok Petani Sertifikasi</em>)</td>
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<td>LATIN</td>
<td>(<em>The Indonesia Tropical Institute</em>)</td>
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<td>LCA</td>
<td>Life-Cycle Analysis</td>
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<td>LEI</td>
<td>Indonesian Eco-label Accreditation Body (<em>Lembaga Ekolabel Indonesia</em>)</td>
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<td>LoI</td>
<td>Letter of Intent</td>
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<td>LP3ES</td>
<td>Research and Education Foundation for Economic and Social (<em>Lembaga Penelitian, Pendidikan dan Penerangan Ekonomi dan Sosial</em>)</td>
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<tr>
<td>MBI</td>
<td>Market-Based Institute</td>
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<td>MoF</td>
<td>Ministry of Forestry</td>
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<td>MPTS</td>
<td>Multiple Purpose Tree Species</td>
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<td>NDF</td>
<td>New Deal Form</td>
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<td>NGOs</td>
<td>Non-Government Organisation (<em>Lembaga Swadaya Masyarakat</em>)</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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<td>NNGOs</td>
<td>Northern Non-Goverment Organisation</td>
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<td>NSMD</td>
<td>Non-State Market-Driven</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Cooperation and Development</td>
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<td>PEFC</td>
<td>Pan European Forest Certification</td>
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<tr>
<td>PERSEPSI</td>
<td>Association for Economic and Social Study and Development (Perhimpunan untuk Studi dan Pengembangan Ekonomi dan Sosial)</td>
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<tr>
<td>PHBM</td>
<td>Managing Forest with Local Community (Pengelolaan Hutan Berbasis Masyarakat)</td>
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<td>PMDH</td>
<td>Support for Forest Dependent People (Pembinaan Masyarakat Desa Hutan)</td>
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<td>RLPS</td>
<td>Land Rehabilitation and Social Forestry (Rehabilitasi Lahan dan Perhutanan Social)</td>
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<td>SD</td>
<td>Sustainable Development</td>
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<td>Small-Scale Forest Enterprises</td>
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<td>SFI</td>
<td>Sustainable Forestry Initiative</td>
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<td>SKEPHI</td>
<td>The Indonesia Network for Forest Conservation</td>
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<td>Small and Low Intensity Managed Forest</td>
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<td>SME</td>
<td>Small-Medium Enterprises</td>
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<td>Southern Non-Government Organisations</td>
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<td>TFT</td>
<td>The Tropical Forest Trust</td>
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<td>TNC</td>
<td>The Nature Conservancy</td>
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<td>TPKS</td>
<td>Certified Wood Management Unit (Tempat Penitipan Kayu Sertifikasi)</td>
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<td>UN</td>
<td>United Nations</td>
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<td>UNDP</td>
<td>United Nations Development Program</td>
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<td>UNHCR</td>
<td>The United Nations High Commissioner for Refugee</td>
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<td>UUPK</td>
<td>The Basic Forestry Law (Undang-Undang Pokok Kehutanan)</td>
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<td>WALHI</td>
<td>Indonesian Environmental Forum (Wahana Lingkungan Hidup)</td>
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<td>World Bank</td>
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<td>WCED</td>
<td>The World Commission on Environment and Development</td>
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<td>WTO</td>
<td>World Trade Organisation</td>
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<td>WWF</td>
<td>World Wildlife Fund</td>
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Chapter one

Overview of research topic and approach

1.1 Transforming state-community relations

During the late twentieth century, many areas of the world struggled towards the political configuration of modern constitutional democracy. The public realm of ‘people sovereignty’ first developed in the United States. It spread to southern Europe, Latin America, and eastern Europe and later on to Asian and African nations. The collapse of authoritarian states in eastern Europe in the late-1980s and 1990s, are examples of the increasing public demand for liberalisation, democratisation, and the empowerment of civil society (Midgley, Hall, Hardiman, & Narine, 1986; Roniger & Gunes-Ayata, 1994).

Although non-government organisations (NGOs) are not synonymous with civil society, they have played important roles in the transformation of public community spheres. As the third or non-profit sector, NGOs function in many ways to develop civil society through promoting democratisation and good governance, and reshaping national/international policy. In line with this process, the opportunity for civil society participation in the development process is increasing (Midgley et al., 1986; Roniger & Gunes-Ayata, 1994).

The emergence of non-government organisations as alternative development agents

The World Bank has defined NGOs as "private organisations that pursue activities to relieve suffering, promote the interests of the poor, protect the environment, provide basic social services, or undertake community development" (World Bank, 1989, p.1). In wider usage, the term can be applied to any non-profit organisation that is independent of government. NGOs are typically value-based organisations that depend, in whole or in part, on charitable donations and voluntary service. Although the NGO sector has become increasingly professional over the last two decades, its characteristics are still largely based on principles of altruism and voluntarism (World Bank, 1989).
The term NGO is very broad and encompasses many different types of organisations. The World Bank tends to interact with two broad categories of NGOs:

1. **Operational NGOs** - whose primary purpose is the design and implementation of development-related projects; and

2. **Advocacy NGOs** - whose primary purpose is to defend or promote a specific cause, and who seek to influence the policies and practices of government (World Bank, 1989).

However, several scholars have divided types of NGOs into other categories that are based on a range of distinguishing features, as discussed in more detail in Chapter 2.

For more than two decades now, the state has no longer been considered the sole political authority at both domestic and international levels. There are growing numbers of actors that are not state entities, state-based, or state created, which have taken on authoritative roles and functions in global governance. These non-state actors include international government organisations, multinational corporations, transnational religious movements, formal or informal transnational networks of government bureaucrats, NGOs, and even international criminal and terrorist networks (Hall & Biersteker, 2001).

NGOs differ from governments in regard to their source of legitimacy. NGOs as non-state or non-governmental actors possess their legitimacy by voicing an opinion, while governments possess theirs because they are elected by a community (Edwards & Gaventa, 2001). According to the World Bank, NGOs have different potential strengths as compared to governments. These are seen in their ability to reach poor communities and remote areas, promote local participation, operate at low cost, identify local needs, build local resources, and introduce new technologies (World Bank, 1989). Being ‘non-government’, NGOs can become ‘alternative’ and key players in development efforts, since NGOs can provide space for people to participate in development and social change in a way that is not always possible in government programs. They can also create strategies to realise their alternative practices and outcomes (Mitlin, Hickey, & Bebbington, 2007).

The significant growth of NGOs at the end of the Cold War in 1989 has resulted from political globalisation (Reimann, 2006) within the neo-liberal agenda on economic
liberalisation (Gideon, 1998). Neo-liberal theory demands a minimal state role in public services, as states are generally regarded as inefficient in delivering them (Edwards & Hulme, 1995, 1996; Gideon 1998; Meyer, 1992; Reimann, 2006). The expansion of the humanitarian sector followed the ‘New Political Agenda’ of bilateral and multilateral donor agencies that regarded NGOs and grassroots organisations as more effective vehicles than states for economically efficient public service delivery, and for the process of democratisation. This agenda boosted the popularity of NGOs and increased official funding channelled through them, thus bolstering their growth (Edwards & Hulme, 1995).

The increasing popularity of and funding channelled through NGOs can create opportunities for them, but can also create dependency on funding. This phenomenon unavoidably raises the question of the independence of NGOs in exercising their roles, as well as their accountability and legitimacy (Edwards & Hulme, 1995).

NGOs’ dependency on donors can create a patron-client rather than a partnership relationship between donors and NGOs (Najam, 1996). By means of funding, donors have power to set NGOs’ agendas (Meyer, 1995; Vivian, 1994), which in turn may limit the independence of NGOs in setting their own goals (Edwards & Hulme, 1995; Fowler, 1991; Zaidi, 1999) – especially if their survival depends on funding from donors (Najam, 1996). It may also create opportunistic fund-seeking behaviour among NGOs (Edwards & Hulme, 1996; Najam, 1996; Uphoff, 1993).

NGOs’ dependency on donors’ money may shift their accountability upwards (accountability to donors) rather than downwards (accountability to beneficiaries) (Zaidi, 1999) – causing them to become primarily concerned with satisfying their donors rather than their clients (Fowler, 1991). Accountability is “the process by which an NGO holds itself openly responsible for what it believes, what it does and what it does not do in a way which shows it involving all concerned parties and actively responding to what it learns” (Slim, 2002, p.11). There are two types, performance accountability and voice accountability. Performance accountability is how NGOs prove their effectiveness by reporting the outcome and impact of what they have done; voice accountability is how they prove the accuracy of what they have said and clarify from whence they derive the power to speak – such as whether speaking as, with, for, or about the poor (Slim, 2002).
NGOs’ accountability is important for achieving their legitimacy. The legitimacy is “the particular status with which an organisation is imbued and perceived at any given time that enables it to operate with the general consent of peoples, governments, companies and non-states groups around the world” (Slim, 2002, p.6). The legitimacy of NGOs is both derived and generated. It is derived from morality and law. It is generated by veracity, tangible support and more intangible goodwill. NGOs can claim their legitimacy from where they derive the power to speak, whether they speak as, with, for, or about the poor or oppressed people (Slim, 2002).

The outcomes of NGOs’ projects also depend on the requirements of, and funding from, donors. Donors usually require quantifiable outcomes and provide short-term support for specific projects (Edwards & Hulme, 1995, 1996; Kaimowitz, 1993; Meyer, 1992; Vivian, 1994). This habits make it difficult for NGOs to deliver long-term qualitative outputs for grassroots beneficiaries or to ensure program sustainability (Edwards & Hulme, 1996; Zaidi, 1999). Such dependency may also cause NGOs to become less participatory and less community-based in approach; and to deliver top-down projects in which project goals, planning, and methods have been decided by donors and NGOs (Bebbington & Farrington, 1993; Fowler, 1991; Kaimowitz, 1993; Meyer, 1992; Najam, 1996; Vivian, 1994; Wiggins & Cromwell, 1995).

**NGOs in Indonesia and their roles in the forestry sector**

The goals and characteristics of NGOs working in Indonesia have gradually altered over time. During the colonial era (the 1940’s), some NGOs changed direction from being self-help cooperative groups to embryonic political movements, acting as agents for liberation from Dutch and Japanese colonial control. After full independence from colonial governance was gained in 1945, the first president of Indonesia, President Sukarno, promoted political pluralism. This innovation caused conflict among the political parties and led to economic stagnation and political chaos. The situation forced President Sukarno to implement a ‘Guided Democracy’. However, instead of solving the problem, this stimulated student and intellectual actors to build a grassroots movement that became a political force seeking social and political changes (Gordon, 1998).
After President Sukarno stepped down, President Suharto, with his new military government called New Order, took control of Indonesia from 1965 to 1998. The Suharto era was characterised by natural resource degradation as a result of rapid development of the industrial sector. Disappointment over the government’s failure in managing environmental sustainability, and its unhelpful approach to the poor, triggered the emergence of a large number of Indonesian NGOs in the 1990’s (Okamoto, 2001) that mostly criticised the government (Gordon, 1998). This phenomenon forced the New Order regime to implement strong controls over NGOs by depoliticising them, or limiting their political activity, which led to tense or uneasy relations between NGOs and the government (Mahasin, 1989; Schwarz, 1995).

In relation to the forestry sector during the Dutch colonial era, the government was the central authority in the management of forest and other natural resources. Being subordinate to the interests of commercial and centralised forestry, the regulation of forests during that time tended to ignore the aspirations of forest dependent people, as they were commonly seen as a problem for forest management (Peluso, 1992).

In the first phase of the Suharto era (from the late-1960’s to mid-1980’s) several efforts were made to revitalise the colonial forest policy, but without changing the previous policy direction, since the central government maintained strong control of the forest (Nomura, 2008). In this phase, the government prioritised commercial timber production by implementing forest concession rights for logging companies to boost national income (Lindayati, 2000), and limited forest access for local people who depended on silviculture (Nomura, 2008). As a result, massive amounts of natural resource degradation occurred, as well as conflict between the most affected people and the government (Moniaga, 1993; Okamoto, 2001).

The significant change to a more participatory style began in the mid-1980’s as a result of global and internal pressure for greater natural resource conservation, and the protection of local people’s rights. During the second phase of the Suharto era (mid-1980’s to 1997), the government began to acknowledge local community rights, through the Forest Village Community Development scheme introduced in 1991 (Nomura, 2008). However, these programs resembled ‘social welfare’ and did not address the continuing state-society
conflict over resources. Responding to the perceived policy failure, some NGOs promoted community forestry by establishing a nationwide network, called a Community-Based Forest Management System, in the early-1990’s to promote local people’s rights and participation in natural resource management (Lindayati, 2000).

After Suharto’s New Order collapsed, there was no paradigm shift in social forestry policy until the new forestry law (UU No. 41/1999) incorporated community forestry concepts into the philosophy of state management and control (Lindayati, 2000). The opportunity for more decentralised control over forests didn’t emerge until the UU No. 22/1999 on regional administration was implemented in 2001 (Safitri, 2006).

Unfortunately, this important change in the governance system led to unintended results in terms of ecological and social problems. The deforestation rate increased from 1.6 million hectares yearly (1985-1997) to 2.83 million hectares (2001-2003) (Bappenas, 2004 and MoF, 2005 cited in Safitri, 2006). Related problems such as conflict over forest access, inadequate access for local communities, poverty among forest-dependent people, and conflict between district and provincial/central governments, worsened these ecological problems (Safitri, 2006). Thus NGOs were challenged to play a more direct role in the forestry sector, especially in promoting participatory forest management and negotiating a framework for land dispute resolution; as well as, in combating collusion, nepotism, and corruption (Okamoto, 2001).

During the Suharto and post-Suharto era, NGOs in Indonesia have contributed in several ways to the forestry sector. During the former, the concessions of state-owned timber enterprises (e.g. Inhutani, Perhutani), forest concession rights (HPH), industrial timber plantation concessions (HTI), and plantation and mining concessions were often established with no regard for forest dependent people and operated on a large scale. Therefore, during this era, many NGOs focused on problems related to the exploitation of forest and other natural resources, largely by supporting local people’s rights to manage forests based on their customary law and traditions (Okamoto, 2001).

After the fall of the Suharto regime in 1998 brought greater freedom of association and expression, NGOs found more opportunity to play an active role -- in particular,
supporting local people’s rights to pursue their version of sustainable forest management. In supporting these rights, some NGOs participated in the policy formulation process. For example, 24 NGOs including ELSAM, WALHI-Jakarta, YLBHI, KPA-Bandung, ICEL, and AMAN, participated in the process to enact TAP MPR IX 2001 - a policy that promoted local participation, women’s equality, sustainable resource use, and ecosystem protection. Moreover, NGOs, such as SHK-Kaltim and LBBPJ, working with the local administration, foreign aid organisations, indigenous people, community organisations, universities and other organisations, actively contributed to developing a draft forestry ordinance. At the same time, other NGOs were actively involved in seeking to resolve land conflicts by facilitating participatory land mapping, multi-stakeholder meetings, and information sharing. In supporting forest management initiatives by local people, NGOs also promoted community-based forest management that drew on traditional knowledge (Okamoto, 2001).

1.2 Enhancing peasants’ livelihoods through community forestry

During the past 50 years, the earth’s forest resources have contributed to the daily livelihoods of 90 percent of the 1.2 billion people living in extreme poverty; and have indirectly supported the natural environment that is essential for agriculture, as well as the food supplies of nearly half the population of the developing world (World Bank, 2004). “A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for living” (Chambers & Conway, 1992); while “livelihood strategies are the combination of activities that people choose to undertake in order to achieve their livelihood goals. They include productive activities, investment strategies and reproductive choices” (IDS, 2015). Community forestry is a potential tool for enhancing peasants’ livelihoods.

The rapid increase of deforestation and poverty amongst forest dependent people around the world signalled a mismanagement of forests. The old policies that separated people from forests failed to address the ecological and social problems caused by this false distinction (FAO, 2011), as forestry is not only about trees but also the extent to which trees can serve the needs of people (Westoby, 1987).
The ecological crisis and growth of poverty around the world have stimulated awareness of these problems among the international community, especially with donor agencies. These bodies understand the importance of sustainable natural resource management, the link between deforestation and an increasing rate of poverty, and the role of community forestry that recognises the close relationship between forests and people (FAO, 2011). Among many international conferences that have promoted sustainable forest management by, and for, the people was the World Forestry Congress with its breakthrough rhetoric of ‘Forests for People’ in 1978. Since then, many newly independent countries have begun to implement community forestry in various models and using different terminology (Hobley, 2007; Westoby, 1987). Essentially, community forestry tries to achieve simultaneous biodiversity conservation and community development (Charnley & Poe, 2007). According to Molnar, France, Purdy and Karver (2011), more than 430 million hectares of global forests, or 11 percent of the total forest estate, are officially owned or managed by community and another 13.8 percent are owned by smallholders and firms. Based on 2008 official country statistics; in developing countries, 27 percent of all forest lands are community owned or administered.

One of the community forestry models practised in Indonesia is farm forestry. Practised under different names and variants by several communities since the colonial era (in the 1930’s), farm forestry was recognised by Forestry Regulation No. 5/1967 (Undang-undang Pokok Kehutanan No. 5/1967) as private forest that consists of trees planted on community or individually owned lands. Then in 1993, The Ministry of Forestry defined ‘farm forestry’ as lands outside of state forest that are predominantly planted with trees, so as to form an integral ecosystem (Departemen Kehutanan 1993, in Awang et al., 2001).

In farm forestry, the villagers usually practise agroforestry in which trees are grown as part of an integral ecosystem with other crops and livestock (Nair, 2007; Nair, Gordon, & Mosquera-Losada, 2008; Raedeke, Green, Hodge, & Valdivia, 2005; Valdivia, Barbieri, & Gold, 2012; Young, 1988). Over 90 percent of agroforestry is conducted by peasants on their agricultural land/ farmland (Young, 1988), not only to fulfil subsistence needs and to obtain cash, but also to create intended effects from trees for non-tree components and the
ecology (Kang & Akinnifesi, 2000; Nair, Kumar, & Nair, 2009; Raedeke et al., 2005; Valdivia et al., 2012; Young, 1988).

In Indonesia, small-scale farm forestry on private and/or community-owned land has been in existence since the 1970’s (Nawir & ComForLink, 2007). Covering about 43 percent of the total forest plantation area of Indonesia (FAO, 2001a; Ministry of Forestry, Indonesia, 1998), farm forestry not only supports the daily needs of peasants, but also improves the ecological condition of farmland (Nawir & ComForLink, 2007). Despite the potential of farm forestry both to conserve forests and combat poverty, peasants as small-holders – especially poor households – still receive only a small portion of its commercial benefits.

Insufficient market power, as well as under-developed marketing expertise and knowledge, are among significant barriers for Small-Scale Forestry Enterprises (SFEs) to benefit from their timber enterprises (Butterfield, Hansen, Fletcher, & Nikinmaa, 2005). Therefore, to be able to access profitable commercial timber markets, many peasants need support in developing forest enterprises, including removing policy constraints (Scherr, White, & Kaimowitz, 2002).

One of the NGOs’ efforts to enhance such economic benefits for peasants is helping them to achieve certification of sustainable forest management/forest certification. Forest certification may deliver benefits for peasants as owners of small-scale timber enterprises since it provides opportunities for them to access new markets for certified timber, and to obtain higher profits from the price premium of their certified products (Guillen, 2000; Irvine, 1999; Marijinissen, 1998; Markopoulos, 2003).

1.3 Studies of peasants and NGOs
Redfield (1955) defined peasants as communities living in villages/ rural areas whose existence cannot be separated from cities, and who have a relationship with people in cities/urban areas. Several studies have been conducted to better understand peasants in developing countries, including the economic behaviour of peasants (e.g. Geertz (1963); Popkin (1979), Scott (1976, 1983), Wolf (1983)), and their livelihood strategies (e.g.
Belsky (1993); Young (1988)). This research explores those theories by linking those theories with for instance geographical condition, land access, and opportunity to do off-farm activities.

Among the more general studies of peasants, there are some that specifically investigate the livelihoods of peasants living in and surrounding forest areas (e.g. ‘Rich Forest, Poor People: Resource Control and Resistance in Java’ by Peluso (1992); ‘Perlawanan di Simpang Jalan: Kontes Harian di Desa-Desa sekitar Hutan di Jawa’ (‘Resistance in intersection: daily contest in villages surrounding forests in Java’) by Santoso (2004)).

While Peluso (1992) used a ‘macro’ approach, Santoso (2004) used a ‘micro’ approach to understand these peasants. Illustrating the history of the power struggle caused by the conflicting interests of state forest bureaucrats and peasants in Java, Peluso (1992) outlined the economic and political dynamics of state affecting management of its teak forest. However, the study makes less reference to the economic and political dynamics of peasant life at the local level, or the influence of macro conditions on the local situation (Subkhan, 2006). Adopting the approach of Scott (1985), Santoso (2004) focused on the daily life of forest dependent people, especially their rebellion against state forest bureaucrats who safeguarded their own interests in managing and utilising forests. The study also investigated the effect of this struggle on the lives of people at the regional and national levels. However, it has not dealt with the economic and political dynamics affecting forest dependent people (Subkhan, 2006). This research emphasizes that linking the macro and micro approaches is required to determine the effect of macro entities on local dynamics and conversely, whether local dynamics can influence macro entities.

Several studies have been conducted to develop possible strategies for external agents in supporting peasants through community forestry programs (Scherr et al. (2002), Scherr (2004), and Nawir & ComForLink (2007)). These studies have provided possible roles for external actors (e.g. governments, NGOs, private businesses, and research organisations) in supporting peasants to benefit from their small-scale timber enterprises. They also illustrate in detail the required steps to be taken by these actors so as to enhance benefits to peasants from their SFEs. However, the studies have not taken into account the
possible limitations of external actors in conducting the required steps; and have overlooked the possible reactions of and acceptability level for peasants, regarding these actors’ initiatives. Thus, even though all requirements may have been fulfilled by external actors, the success of their efforts to benefit peasants is not guaranteed. It is possible that the intentions of external actors do not meet with those of the peasants. Moreover, external actors may have problems in implementing successful forestry enterprises, and peasants may have difficulty in following the programs. Therefore, research that can capture the potential and limitations of external actors and peasants in developing SFEs is required to optimise the role of external actors, especially NGOs, in supporting peasants.

This research exploring the capacity and limitations of NGOs, especially in developing farm forestry. This research illustrated Trees-4-Trees’ program as a new model of NGO’s initiative to develop farm forestry. By selling green label to manufactures for funding its plantation program, Trees-4-Trees actually has more opportunity to decide and achieve its intended outcomes without pressure from manufactures as its donors. Whereas, PERSEPSI has less opportunity to decide and achieve its intended outcomes because outcomes of PERSEPSI’s forest certification program has been designed by its donor. Other NGOs or organisations can learn from the Trees-4-Trees mechanism to reduce pressure from donors.

There are also numerous studies of NGOs, some of which discuss their categorisation, comparing and criticising methods of dichotomous discussion of service delivery and advocacy NGOs (e.g. Boonyarak (2002), Brumley (2010), Fakih (2008), Gideon (1998), Yaziji & Doh (2009)). Other studies connect the existence of NGOs to the global context, with some having a focus on NGO-donor relationships (e.g. Edwards & Hulme (1995, 1996), Fowler (1995), Gideon (1998), Reimann (2006), Zaidi (1999)), while NGO-government relationships are examined by others (Brass (2012), Jalali (2008), Kilby (1999), Nair (2011), Sen (1999)). There are also many studies of NGOs exploring their legitimacy and accountability (e.g. Edwards & Hulme (1995), Fisher (1997), Fowler (2000), Ganesh (2003), Slim (2002)). These studies are complementary and help to develop a comprehensive understanding of various kinds of NGOs. There is also some exploration of the role of NGOs in the forestry sector (Okamoto (1991)). To provide more
knowledge about the various roles of NGOs, studies exploring the capacity of NGOs in developing farm forestry would be important.

1.4 Research objective

Since the end of the Suharto era in the late-1990s, NGOs have had more freedom to speak with local communities and publicly. Forest management policy has also shifted to include an emphasis on active participation by local communities in forest management. However, due to a range of complex issues, realising the potential of community-based forestry has been slower than expected. Non-governmental organisations (NGOs) are regularly cited as an important player in shaping Indonesian forest policy and practices, particularly in relation to enhancing the benefits from timber enterprises for peasants practising farm forestry. Yet even for NGOs, the most effective role their organisations should play to enhance community-based forestry, so that it benefits peasants, is not always clear. The main concern of this research is how to optimise the contribution of NGOs to achieve certain outcomes from farm forestry in Indonesia.

Key research questions
The research inquiry is framed by the following key questions:

1. **To what extent do the approaches of the selected NGOs to develop farm forestry meet with peasants’ livelihood strategies?**

2. **To what extent do the selected NGO-led approaches to farm forestry improve participation levels and address poverty, deforestation, and lack of timber supply?**

3. **What are the challenges faced by the selected NGOs in implementing their approaches to farm forestry?**

   This final question is intended as an overarching research question that will allow general conclusions and possible recommendations to be made about the objective of the research.
1.5 Two case studies in this research

My research will focus on PERSEPSI (Association for Economic and Social Study and Development/ Perhimpunan untuk Studi dan Pengembangan Ekonomi dan Sosial) and Trees-4-Trees. Both NGOs are active supporters of farm forestry in Central Java, Indonesia. This research has focused on farm forestry instead of state forestry for several reasons.

First, farm forestry has potential to rehabilitate critical or degraded farmland. Compared to afforestation programs that do not incorporate farm forestry, farm forestry provides legal certainty to peasants through confirmed land tenure and harvest rights suited to the small-scale harvesting commonly followed by peasants (PERSAKI, 2010). Second, farm forestry in Indonesia has the potential to contribute to commercial timber supplies, as it represents about 7.5 percent of the total national timber supply (RLPS, 2009 in PERSAKI, 2010). Third, having been practised by peasants for generations, farm forestry has played an important role in supporting their daily livelihood needs as well as providing cash income (Simon, 1998). However, due to several constraints (e.g. limited financial and human capital, and a long marketing chain), peasants have not gained optimum benefits from their timber enterprises. Therefore, this research sought to investigate the roles of NGOs in supporting peasants to enhancing the benefits of farm forestry.

This research was initially planned to investigate two different types of NGOs (service delivery and advocacy NGOs) that support peasants in developing farm forestry. However, advocacy NGOs focus more on advocating for local people’s rights to access the forests. This is less relevant for peasants in farm forestry who already have legal rights of access to their own forests. For this reason, I decided to investigate two service delivery NGOs (Trees-4-Trees and PERSEPSI) which engaged rural communities in community forestry programs on privately-owned forestland. Even though both NGOs engage in service delivery, the two case studies provide comprehensive information as Trees-4-Trees’ area of operation in Bageng Village and PERSEPSI’s area of operation in Selopuro Village are relatively different in terms of land fertility which, in turn, influences livelihood strategies of the peasants in those areas. Moreover, both NGOs operated at different stages of farm forestry development. Trees-4-Trees, through its plantation program, has tried to encourage peasants to grow more trees; while PERSEPSI, through its
forest certification program, has tried to support peasants with forests ready for harvest (i.e. whose forests are about 50 years old).

1.6 Theoretical framework and research approach

This research is informed by theories and concepts about development, especially neoliberalism and alternative development (e.g. Bebbington et al. (2007), Burkett (2011), Gideon (1998), Ife & Tesoriero (2006), Peet & Harwick (2009), Sachs (1992), Rahnema (1992), Lewis & Kanji (2009), Kamat (2004)). To address my first research question, I present an overview of NGOs and peasants. In order to understand the nature of the two selected NGOs (Trees-4-Trees and PERSEPSI), I explored the categorisation of NGOs using the work of Yaziji and Doh (2009), and Fakih (2008). Since the programs of PERSEPSI centre on forest certification, the relevant concepts developed by several analysts (e.g. Bostrom (2003), Cashore (2003), Fisher (2005), Klingberg (2003), and Markopoulos (2003)) were used to explore the potential and limitations of forest certification for small-scale forest enterprises. The strategies given in Scherr et al. (2002), Scherr (2004), and Nawir & ComForLink (2007) for supporting peasants’ SFEs were also used to illustrate the extent of the two NGOs’ efforts in this regards. To find out how peasants perceive their opportunities and limitations in implementing and benefitting from NGOs’ programs, I explored the economic behaviour of peasants using well-developed theories (e.g. Geertz (1983); Popkin (1980); Scott (1976, 1983); Wolf (1983)). Moreover, livelihood strategies of peasants in their agroforestry practices are examined using agroforestry concepts (e.g. Arnold (1987); Belsky (1993); Kang & Akinnifesi (2000); Nair (2007); Pramova, Locatelli, Djoudi, & Somorin (2012); Valdivia, Barbieri, & Gold (2012); Young (1988)).

To address the second question, I used concepts of degree of participation (e.g. Carter (1996), Cornwall (1995), Race & Buchy (1999)) to discuss the extent to which the programs of the two NGOs improve participation of the peasants. Finally, to address the third research question about the challenges faced by the NGOs in implementing their community forestry programs, I draw on theories and concepts about resource dependency by NGOs on donors (e.g. Edwards & Hulme (1995, 1996), Fowler (1991), Kaimowitz (1993), Meyer (1992), Najam (1996), Vivian (1994), and Zaidi (1999)).
Criteria to assess the capacity of NGOs in delivering outcomes from their forestry initiatives

To assess the outcomes from NGOs’ forestry initiatives, I applied several criteria to guide my investigations: to what extent the farm forestry programs of the NGOs led to improved participation levels of the peasants, reduced poverty, reduced deforestation, and enhanced timber supply. The operating context and capacity of the two NGOs to provide benefits for peasants by means of the NGOs’ programs is illustrated in Figure 1.1, below.

Figure 1.1: Operating context and structural role of two selected NGOs (PERSEPSI and Trees-4-Trees) in developing farm forestry
Research methods and analysis

In this study, I used qualitative methods to identify experiences and perspectives of the purposefully-selected key informants with regard to farm forestry. This research is based on an interpretivist paradigm that tries to analyse a person’s interpretations of their action and environment, in order to deeply understand their social phenomena. Then, based on the research results, I conducted another interpretation of the data by linking their interpretation to key concepts, relevant theories, and the literature (Bryman, 2008).

The case study was chosen as the research strategy since I expected to carry out a holistic and in-depth investigation about the roles of NGOs in farm forestry. I especially wanted to know how these roles can be optimised, and how farm forestry engages local people so as to achieve desirable benefits through local participation. A case-study approach suited my purpose as a research strategy since it allowed an in-depth investigation to retain the holistic and meaningful characteristics of real-life events -- such as individual life cycles, organisational and managerial processes, neighbourhood changes, international relations, and the maturation of industries. This case-study approach sought to answer ‘how’ and ‘why’ questions to aid the study of complex social phenomena, such as contemporary events, and differed significantly from experiments (as it exercised no control over behaviour) (Yin, 1994).

This research used analytic generalisation in which the results were not necessarily applicable to a wider population. In this analytic generalisation, a particular set of findings is generalised to some broader theory in order to help develop and refine previous theories about NGOs and their related contexts (Yin, 2009). Therefore, this research is concerned with what the data say about some specific theories instead of what the data imply about the wider population.

Multiple sources of data or data triangulation have been used to provide internal validity and reliability for this research. Primary data were derived from key informant interviews and observation, while secondary data were collected from a document study. For data analysis, I used an approach referred to as thematic analysis. Thematic analysis is a method of analysis that identifies, presents, and analyses important evident themes into a
pattern of themes used to explore and understand phenomena from field-work (Daly, Kellehear, & Gliksman, 1997; Fereday & Muir-Cochrane, 2006).

1.7 Overview of the thesis

How the thesis addresses the three research questions and integrates with conceptual frameworks, results, discussion, and conclusions is illustrated in Table 1.1.

**Table 1.1: Overview of the thesis**

| Chapter 1: Overview of research topic and approach | An overview of research topic, issues, questions and approach. |
| Chapter 2: Non-government organisations and their development initiatives | The theoretical framework, designed through a literature review of development, is provided to explore the context in which NGOs play their roles through their development initiatives. |
| Chapter 3: Farm forestry as a strategy for enhancing peasants’ livelihood: exploring the roles of NGOs in developing farm forestry in Indonesia | The potential of community forestry (especially farm forestry) in addressing poverty and deforestation, and in supplying timber demands, are illustrated. Theories and concepts about peasants as NGOs’ beneficiaries are also discussed to provide deep understanding about peasants and their relation to their environment. This illustration is followed by discussion about peasants’ agroforestry practices and possible efforts of external actors to support peasants’ small-scale timber enterprises. Finally forest certification programs are also analysed to investigate the strength and limitations in benefiting peasants’ small-scale timber enterprises. |
| Chapter 4: Research methodology | This chapter overview methodology adopted to answer research question. This includes justification of using case study, interviewee selection criteria, data collection and analysis and also efforts conducted to optimise validity and reliability of the case study research. |
| Chapter 5: Research results | The dynamics of peasants’ conditions and the NGOs’ efforts in developing farm forestry are reviewed. This chapter also describes opinion of peasants about the NGOs’ programs and the changes following program implementation. |
| Chapter 6: Discussion of key results | The nature of the two selected NGOs, their farm forestry programs, the livelihood strategies of peasants are discussed by linking the information with the relevant literature reviews. This chapter also provides the outcome of the NGOs program in term of improving quality of participation and addressing poverty, deforestation and enhancing timber supply. The challenges faced by the NGOs in implementing their program are also discussed. |
| Chapter 7: Conclusions and recommendations | The results of the research and discussion are summarised and possible efforts to improve the capacity of NGOs in developing farm forestry are presented. This chapter also contains reflections on the research process. |
Chapter two

Non-government organisations and their development initiatives

2.1 Introduction

During the past three decades, non-government organisations (NGOs) have increasingly become pivotal players in global governance (Reimann, 2006) and important actors in the development system (Bratton, 1989), often playing a dual role as service delivery and political reform agents (Robinson, 1993). As service delivery agents, NGOs are widely expected to be more efficient and more flexible than state-led initiatives in reaching the poorest people (Bebbington, 1993; Colclough & Manor, 1991; Elliot, 1987; Mitlin et al., 2007; Sethi, 1993; Zaidi, 1999). As political reform agents, NGOs are expected to protect human rights, channel communication, promote participation and pluralism (Bebbington, 1993; Elliot, 1987; Moore, 1993; Tembo, 2004; Zaidi, 1999) and enforce good governance (Bebbington & Riddel, 1995).

However, it is not always easy for NGOs to realise these expectations. NGOs have limitations in exercising their roles, as they cannot be totally free from their environment and often need to compromise their goals with other actors’ interests. Most NGOs depend on funding from resource providers/donors for their survival. This resource-dependence drives NGOs to synchronise their agendas with required conditions set by resource providers/donors (Elbers & Arts, 2011; Fowler, 2000; Pfeffer & Salancik, 1978), making them vulnerable to compromising their ideals or values to secure resources from donors.

This chapter firstly gives overviews of terms, definition and typologies of NGOs. Then the emergence and growth of these organisations from both ‘bottom-up’ and ‘top-down’ points of view is described. While the ‘bottom-up’ explanation views the emergence of NGOs as driven by socio-economic survival strategies – as well as reactions to the
revolution in information technology and/ or to the decline of the state – the ‘top-down’

explanation sees the growth of NGOs as being influenced by political globalisation.

Since NGOs’ works is closely related to development, it is important to link their
efforts with theoretical and practical ideas about development in this chapter. Among
development theories, neo-liberalism and alternative development theory are those which
recognise the important roles of NGOs. Therefore, this chapter focuses on how neo-
liberalism and alternative development have engaged with, or impacted upon, NGOs; and
how NGOs play their roles as alternative development agents within neo-liberal
development policies. Even though NGOs have not been able to influence the dominance
of neo-liberal discourse, in some cases they have important roles in global governance.
Thus, it is also important to discuss how NGOs influence international negotiation in
global governance.

As mentioned before, the rapid growth of NGOs is mostly driven by donors, since
most depend on funding from resource providers/donors for their survival. Therefore, this
chapter is closed by a discussion about relationships between NGOs and donors, and how
the formers’ resource dependency affects their performance, accountability, and
legitimacy.

2.2 What are non-government organisations?
Non-government organisations (NGOs) seem to be best known among professionals and
activists in many countries. However, understanding the nature of NGOs is no simple task.
NGOs are various not only in term of roles they play (i.e. service provider, advocacy), but
also in term of levels (i.e. local, national, and international NGOs), scales (i.e. large,
small), and resources (i.e. externally funded, locally resourced). Therefore, it is difficult to
generalise them.

The term ‘NGO’ has been widely recognised since the United Nations, to
differentiate between participation rights of governmental agents and international private
organisations (Willet, 2002). The other terms that are usually applied to NGOs are Private
Voluntary Organisation (PVO) and Non Profit Organisation (NPO) (Vakil, 1997). PVO is a
term for non-governmental agents that are non-profit and conduct their activities abroad for
delivering development, while NPOs are organisations with a broader focus, ranging across sport, politics etc. (Suharko, 2005). Najam (1996) has listed NGOs, PVO, and NPO among about 47 different acronyms that refer to NGOs around the world. These terms are various in meaning and may have different implications (Lewis & Kanji, 2009).

The term ‘NGO’ can be widely or narrowly defined. The UK Public Law Project defined NGOs as being all non-state organisations, whether they be profit or non-profit oriented. NGOs can also be classed as business or third sector players (Sunkin et al., 1993). In the narrower sense NGOs are often seen as ‘third sector’, as distinct from the first sector of government and the second sector of for-profit business. ‘Third sector’ usually implies ‘not-for-profit’, ‘voluntary’ or ‘non-governmental’ (Lewis & Kanji, 2009). Vakil (1997) added development or humanitarian work when defining NGOs. Therefore, NGOs are “self-governing, private, not-for-profit organisations that are geared to improving the quality of life for disadvantaged people” (Vakil, 1997). However, some NGOs are ‘hybrids’ or social enterpriser NGOs that are for-profit organisations with a social goal (Lewis & Kanji, 2009).

Not only are the terms used for describing NGOs various, the characteristics of NGOs themselves are also diverse. There are several typologies of NGOs that are based on different categorisations as described in Table 2.1 and the paragraphs below it.
### Table 2.1: Typology of NGOs

<table>
<thead>
<tr>
<th>Definitions</th>
<th>Characteristics</th>
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| Based on scale of influence/operation (ADB, 1999) | - Big NGOs (bingos): well-established NGOs that have access to external funding and political power;  
- Local/ little NGOs (lingos): have less political power and limited access to external funding; and  
- Red Plate NGOs: established by government to fulfil the it’s intentions and supported by government resources. |
| Based on origin (Boonyarak, 2002) | - Northern NGOs (NNGOs): usually have a home base in developed countries and focus their activities in development projects in other countries;  
- Southern NGOs (SNGOs): act as connector between international donors, northern NGOs and local NGOs;  
- Regional NGOs: established to provide services for developing countries; and  
- Local NGOs/ community-based organisation (CBOs)/ grassroots organisation (GROs) (some NGOs sometimes conduct their activities on more than one level). |
| Southern NGOs based on membership (Bratton, 1989) | - Membership-based NGOs: have members, give services and benefits to their members; and  
- Non-membership-based NGOs/ intermediary NGOs: give services to the most powerless individuals or groups. |
| Indonesian NGOs based on Type of activity (Eldridge, 1989) | - National-level cooperation/ grassroots development NGOs: focus on delivering development benefits and advocating for people to participate in the development process instead of influencing policy-making (e.g. Bina Swadaya, Yayasan Indonesia Sejahtera);  
- National-level politics/ grassroots mobilisation NGOs: try to intervene in political processes and practices by enhancing self-management capacity and advocating for community awareness of members’ legal rights (e.g. LP3ES, WALHI, YLKI, YLBHI etc.); and  
- Empowerment from below NGOs: prioritise local people’s rights and consciousness building among people at local level rather than policy change at national level (e.g. Kalyana Mitra, Yasanti Yogyakarta, KSKBH Yogya). |

Yaziji and Doh (2009) divide NGOs according to whom the NGO is designed to benefit (similar to Bratton’s categorisation) and what it does (similar to Eldrigde’s categorisation) as illustrated in the following figure. The typology is archetypical, which means that a single NGO may occupy more than a single quadrant and may move from quadrant to quadrant over time.

Based on those whom the NGOs benefit, there are two types of NGO in this categorisation, self-benefiting NGOs and other-benefiting NGOs:
1. Self-benefiting NGOs: these are usually membership-based organisations that are established to fulfil members’ interests and to provide a benefit to their members. Self-benefiting NGOs are supported by their members through financial and labour contributions. Compared to ‘other-benefiting NGOs’, the ‘self-benefiting NGOs’ tend to be challenged to achieve a higher degree of accountability, since the members usually compare how much benefit they gained to the contribution they made. Self-benefiting NGOs are entities such as business associations, church groups, amateur sports clubs etc.

2. Other-benefiting NGOs: these NGOs are often non-membership NGOs that receive no financial or labour support from their members. ‘Other-benefiting NGOs’ gain higher moral credit than ‘self-benefiting NGOs’, because of their altruism. Examples of ‘other-benefiting NGOs are the World Wildlife Fund (WWF), Greenpeace, CARE etc. (Yaziji and Doh, 2009).

Based on their types of activity, NGOs can be distinguished into ‘advocacy’ and ‘service sector’ NGOs.

1. Advocacy NGOs: these NGOs try to influence government policy and/or shape the existing social, economic or political system – by lobbying, conducting research, organising boycotts, and/or promoting alternative ideology etc. There are two types of advocacy NGOs; ‘watchdog NGOs’ and ‘social movement NGOs’. ‘Watchdog NGOs’ are less radical than ‘social movement NGOs’. They do not try to change the existing economic, social, legislative, and political systems but make sure that these systems are managed in consultation with various other organisations. By comparison, ‘social movement NGOs’ are not satisfied with the existing systems in the community, and want to change them by promoting alternatives.

2. Service NGOs: instead of influencing governments’ policy or changing economic, social, legislative and political systems, service-oriented NGOs’ are more concerned with providing goods and services to their clients.

3. Hybrid and evolving NGOs: it is possible for some NGOs to be active in both the advocacy and service areas simultaneously, or to move from one type of activity to the other (for example, WWF) (Yaziji & Doh, 2009).
Figure 2.1: Matrix classification of NGOs

<table>
<thead>
<tr>
<th>BENEFICIARY</th>
<th>TYPE OF ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self (members)</td>
<td>Alcoholics</td>
</tr>
<tr>
<td></td>
<td>Anonymous</td>
</tr>
<tr>
<td></td>
<td>Chess clubs</td>
</tr>
<tr>
<td>Others (outsiders)</td>
<td>Salvation Army</td>
</tr>
<tr>
<td></td>
<td>CARE</td>
</tr>
<tr>
<td></td>
<td>Service</td>
</tr>
<tr>
<td></td>
<td>Advocacy</td>
</tr>
<tr>
<td></td>
<td>Labour unions</td>
</tr>
<tr>
<td></td>
<td>Trade associations</td>
</tr>
<tr>
<td></td>
<td>WWF</td>
</tr>
<tr>
<td></td>
<td>Amnesty</td>
</tr>
<tr>
<td></td>
<td>International</td>
</tr>
</tbody>
</table>


Korten (1987) in his ‘The Third Generation of NGOs’ illustrated the emergence of three generations of NGOs. From the first generation of NGOs (called charitable/ welfare NGOs) there emerged the second generation (identified as small-scale/ self-reliant local NGOs), which produced the third generation (regarded as ‘sustainable development’ NGOs). However, Fakih (2008) argued that Korten’s typology of NGOs tends to emphasise management and methodology used in modernisation and development; and also to support the hegemony of modernisation, development, and capitalism. It ignores the possible alternative paradigm or contra of the development discourse. Moreover, Korten’s opinion about the evolution of NGOs (the first generation evolved into the second generation and so on) is tendentious since it is evident that the emergence of various types of NGOs is not a linear process; for instance, not all the first generation NGOs were transformed into second generation NGOs.

Fakih (2008) also criticised Eldridge’s typology of NGOs as having ignored the variety of paradigms of NGOs (Eldridge, 1989). Eldridge tends to single out ‘activity of NGOs’ in his categorisation of them. However, this analysis can create a false dichotomy since an income generation project can be categorised as grassroots mobilisation, rather than grassroots development, if the project is also concerned with female empowerment.
(Fakih, 2008). Being dissatisfied with the existing typologies, some NGOs in Indonesia have created a categorisation that is based on a ‘paradigm of NGOs’, and includes their basic assumptions, problem definition, methodology and activity goals, etc. The typology will help these Indonesian NGOs to understand their position, in terms of how they define communities’ problems, decide their goals, and realise them through their activities. This typology is illustrated in Table 2.2 and Figure 2.2 (Fakih, 2008).

Table 2.2: Different paradigms of NGOs

<table>
<thead>
<tr>
<th>Causes of problems</th>
<th>Conformer NGOs</th>
<th>Reformer NGOs</th>
<th>Transformer NGOs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Local people’s condition</td>
<td>- Lack of education</td>
<td>- Exploitation</td>
</tr>
<tr>
<td></td>
<td>- God, destiny</td>
<td>- Over-population</td>
<td>Structural Imbalance</td>
</tr>
<tr>
<td></td>
<td>- Bad luck</td>
<td>- Traditional values</td>
<td>Hegemony of Capitalism</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Goals</th>
<th>Conformer NGOs</th>
<th>Reformer NGOs</th>
<th>Transformer NGOs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Minimise the sufferings</td>
<td>- Enhance production</td>
<td>- Contra-exploitation</td>
</tr>
<tr>
<td></td>
<td>- Pray</td>
<td>- Make the existing system work properly</td>
<td>- Create new economic or political system</td>
</tr>
<tr>
<td></td>
<td>- Hope</td>
<td>- Change the local values</td>
<td>- Contra-development discourse</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program</th>
<th>Conformer NGOs</th>
<th>Reformer NGOs</th>
<th>Transformer NGOs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Childcare</td>
<td>- Technical workshop</td>
<td>- Awareness</td>
</tr>
<tr>
<td></td>
<td>- Overcome famine</td>
<td>- Help small business</td>
<td>- Alternative to economic development</td>
</tr>
<tr>
<td></td>
<td>- Medical support</td>
<td>- Community development</td>
<td>- Labour union</td>
</tr>
<tr>
<td></td>
<td>- Shelter for orphans, elderly, homeless, refugees etc.</td>
<td>- Legal backing</td>
<td>- Cooperation</td>
</tr>
<tr>
<td></td>
<td>- Technical workshop</td>
<td>- Supplementary help</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Types of change and Assumption</th>
<th>Conformer NGOs</th>
<th>Reformer NGOs</th>
<th>Transformer NGOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional paradigm/ social stability</td>
<td>- Critical of existing system/ structure</td>
<td></td>
<td></td>
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<table>
<thead>
<tr>
<th>Type of Leadership</th>
<th>Conformer NGOs</th>
<th>Reformer NGOs</th>
<th>Transformer NGOs</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>- Believe in government</td>
<td>- Participative</td>
<td>- Participative facilitator</td>
</tr>
<tr>
<td></td>
<td>- Consultative</td>
<td>- Sharing responsibility</td>
<td>- Strict Discipline</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Type of Service</th>
<th>Conformer NGOs</th>
<th>Reformer NGOs</th>
<th>Transformer NGOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charitable</td>
<td>- Help people to help themselves</td>
<td>- Land reform</td>
<td></td>
</tr>
<tr>
<td>Welfare</td>
<td>- Green Revolution</td>
<td>- Participatory research</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Community development</td>
<td>- Popular education</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Non- formal education</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Vocational education</td>
<td></td>
<td></td>
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<table>
<thead>
<tr>
<th>Inspiration</th>
<th>Conformer NGOs</th>
<th>Reformer NGOs</th>
<th>Transformer NGOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conformation</td>
<td>- Reformation</td>
<td>- Emancipation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Transformation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Adapted from Fakih (2008).

1. Conformer NGOs: most of these organisations’ activities are charitable and designed to solve critical needs of the poor or people who suffer from natural disasters, wars etc. These NGOs work ‘without theory’ meaning that they just want to help people who suffer without analys the causes of their sufferings.

2. Reformer NGOs: these organisations support a ‘modernisation and development’ paradigm. They are more concerned with motivating local people
to participate in development programs than criticising ‘development’ and problems emerging from it (e.g. class-based exploitation, political turmoil, suppression of civil rights, gender bias, hegemony of culture).

3. Transformer NGOs: by contrast, these NGOs question the paradigm of ‘development’ and the ideology behind it. Hence they try to find alternative paradigms that create more opportunity for the people to optimise their potential to compete with external - interests, to: control their own history; find their own strategy in managing natural resources rationally; control their ideology; and be democratically involved in social, economic, and political change (Fakih, 2008).

**Figure 2.2:** Typology of NGOs in Indonesia based on their paradigms

![Typology of NGOs in Indonesia](image)

*Source: Developed from Fakih (2008).*

Among the various typologies of NGOs, those that identify NGOs as service providers versus activists/ advocates (Barr, Fafchamps, & Owen, 2005), resisters versus co-operators (Landim, 1987), protesters versus inactive (Ruwanpura, 2007), supply side versus demand side (Clark, 1995), or micro tasks versus macro tasks (Fowler, 1997) are the mostly widely discussed, especially in relation to neo-liberal strategies. Under neo-liberal economic policies, NGOs became the “*preferred channel for service provision in deliberate substitution for the state*” (Edwards and Hulme, 1996, p. 2), while the political
liberalisation agenda of the neo-liberal paradigm expected NGOs to be vehicles for democratisation and act as a counterweight to governments (Brumley, 2010).

Service delivery NGOs are often criticised for taking on quasi-governmental characteristics (Arellano-Lopez & Petras, 1994; Valla, 1994). Moreover, it is often questioned whether they can promote democratisation and empowerment; not all of them include gender concerns in their agenda, and they usually pursue social rather than political rights (Gideon, 1998). Service delivery NGOs are also often accused of merely reducing symptoms of poverty without addressing its causes (Edwards & Hulme, 1992). Indeed, it has been argued that service delivery NGOs may indirectly minimise pressure for reform of ineffective and bureaucratic ministries, as states can bypass state agencies by using NGOs (Angell & Graham, 1995).

Based on his research into service delivery NGOs in Latin America, Gideon (1998) concluded that it is too optimistic to expect them to strengthen grassroots empowerment and democratisation at the local level, as these NGOs have customarily been used by the state to implement the neo-liberal model. The state’s determination of their roles has resulted in a distortion of their original agendas. Moreover, the available funding from international donors in response to economic restructuring has stimulated the emergence of new ‘opportunistic’ NGOs; these are likely to focus more on implementing development projects than promoting local level democratisation and empowerment (Arellano-Lopez & Petras, 1994). Older NGOs that previously played a political role have been forced to present themselves as development organisations if they want to gain funding, -- NGOs who have linked their focus to neo-liberal strategy are the most likely to win funding from multilateral and international agencies. Thus advocacy NGOs that try to challenge state sovereignty by promoting gender and class equity are likely to have less opportunity to garner resources (Gideon, 1998).

Some scholars consider that the ideology and practical methods of NGOs have shifted in line with the dynamics of political and economic conditions. The identification of this trend led to the dichotomous categories of NGOs. From the late-1800s to the first half of the 20th Century, NGOs are identified as having been co-operators, while in the mid-1960s their nature shifted towards that of resisters. In other words NGOs that focus on
service delivery goals have been perceived as co-operators and those with advocacy goals, resisters (Brumley, 2010). After the mid-1980’s, it became more difficult to categorise them dichotomously, not only because their strategies are based on their respective goals, but also because their goals are linked with their socio-political environment (Brumley, 2010). Moreover, the service delivery and advocacy approaches are not mutually exclusive for some NGOs. Fowler (1997) argued that it would be better if classification of NGOs could link micro-tasks (e.g. provision of goods, socio-financial services, capacity building, and facilitation) and macro tasks (e.g. policy advocacy, lobbying, public education and mobilisation, monitoring, reconciliation, and mediation).

2.3 The emergence and growth of non-government organisations (historical context)

In the literature, the sources of NGOs’ growth can be explained from both ‘bottom-up’ and ‘top–down’ points of view (Reimann, 2006). The ‘bottom-up’ explanation sees the growth of NGOs as stimulated by societal forces trying to replace the state from below. Thus, the emergence of NGOs has been driven by socio-economic survival strategies (Bebbington & Farrington, 1993; Reimann, 2006): as well as reactions to the revolution in information technology and/or to the decline of the state (Mathews, 1997), especially in addressing underdevelopment and environmental issues (Samuel, 2003; Zaidi, 1999). It has also been argued that they have thrived due to state bureaucratic mechanisms and top-down policies (Uphoff, 1993).

In the case of bottom-up forces, the emergence of NGOs was often driven by religious tradition that focused on local self-help actions and philanthropy (Ilchman et al., 1998). For example in India, the rise of NGOs was influenced by several factors, such as Mahatma Gandhi’s ideas of village self-reliance, Christian missionaries, and reformist middle classes (Sen, 1992). In Latin America, the Catholic Church’s commitment to work for the poor influenced the rise of NGOs in the 1960s (Escobar, 1997). In Kenya, there was the ‘harambee’ movement, consisting mutual self-help groups based on kinship and neighborhood relations (Moore, 1988). In some colonised countries, missionaries’ activities were often models for prototypical NGO initiatives in delivering education, health, and other welfare services (Fernando & Heston, 1997).
The emergence and growth of NGOs is not only the result of bottom-up forces caused by socio-economic and technological factors, but also of the top-down process of political globalisation. That is to say, NGOs have proliferated because of the globalisation of political structures, institutions, and Western liberal democratic values (Reimann, 2006) within the neo-liberal agenda (Gideon, 1998). Having considered state-led development to be a failure – due to inefficient resource allocation and insufficient incentive for the public sector – the neo-liberal model tried to shift away from previous economic strategies that were based on state-led development (Gideon, 1998; Stiles, 1998), towards those which included people participatory and private sector actors (Stiles, 1998).

The neo-liberal agenda of economic liberalisation is reflected in the stabilisation and adjustment of policies to improve resource allocation and the export sector, for stimulating investment and growth (Gideon, 1998). As explained above, these policies reforms were promoted by Ronald Reagan and Margaret Thatcher through structural adjustment programs (SAPs). Such programs attempt to minimise states’ role in public services (Edwards & Hulme, 1995, 1996; Gideon, 1998; Meyer, 1992; Reimann, 2006) by implementing decentralisation, privatisation, rationalisation of resource allocation, and enforcing a free market to stimulate economic growth – states being viewed by neo-liberal theory as corrupt, inefficient, unproductive, and over-bureaucratic (Gideon, 1998).

These neo-liberal strategies through the establishment of the New Policy Agenda also became an important source of momentum for the increasing growth of NGOs (Reimann, 2006; Robinson, 1993). Driven by the two poles of neo-liberal economics and liberal democratic theory since the end of the Cold War in 1989, the New Policy Agenda comes from economic and political opinion to the effect that free markets ensure a healthy society (Moore, 1993; Robinson, 1993). Firstly, markets and private initiatives such as NGOs are regarded as a more efficient or cost-effective mechanism than the state, as well as being more flexible in reaching the poorest people and in achieving economic growth (Bebbington, 1993; Elliot, 1987; Mitlin et al., 2007; Sethi, 1993; Zaidi, 1999). Secondly, NGOs are seen as catalysts for democratisation or as counterweights to state power, as well as vehicles to strengthen ‘civil society’ in: protecting human rights, channelling communication, providing training, promoting participation and pluralism (Elliot, 1987; Moore, 1993; Tembo, 2004; Zaidi, 1999) and in enforcing good government (Bebbington
& Riddell, 1995) – all of which will ensure the success of the neo-liberal economic agenda (Moore, 1993).

Neo-liberal strategies in turn have direct implications, especially for service delivery NGOs. Their implementation through economic restructuring caused by *structural adjustment programs* (SAPs) has reduced states’ support for public services, resulting in an increasing level of poverty. This situation has in turn given legitimacy to service delivery NGOs in many countries (Edwards & Hulme, 1996; Gideon, 1998; Meyer, 1992; Reimann, 2006) to expand their functions in service delivery to include those that were previously conducted by states (Alatorre & Aquilar, 1992; Bebbington, 1993; Gideon, 1998). Following the state withdrawal from public service provision, privatisation of public services has created more opportunities for NGOs and private contractors to compete for contracts for public service provision. Due to assumptions about their ability in building strong networks at local level, NGOs are also seen as important actors in fostering decentralisation of the state (Gideon, 1998).

The *New Policy Agenda* and its expectations of NGOs being a ‘panacea for all the ills’ (Hearn, 2007; Zaidi, 1999) has affected development policy by increasing aid transfer from intergovernmental organisations, as well as bilateral and multilateral aid agencies, to NGOs (Edwards & Hulme, 1995; Fowler, 1991; Reimann, 2006). For instance, the World Bank was opted to transfer aid to NGOs because of their abilities to build grassroots channels, so as to implement development programs that are field-based, participative, innovative, cost effective and adaptable. NGOs were also perceived by the World Bank as having long-term commitment to ensuring program sustainability (World Bank, 1995). NGOs’ involvement in World Bank financed projects has increased from one-third of its projects in 1993 to over half in 1994 (World Bank, 1995).

By the late 1990’s about US$6-8 billion per year of external funding was channelled through NGOs, resulting in their growth and spread from Western to non-Western parts of the world (Reimann, 2006). Therefore, the rapid growth of NGOs internationally has mostly been driven by donors (Bratton, 1989; Edwards & Hulme, 1995, 1996; Fowler, 1991; Reimann, 2006). During the past two decades, significant proliferation of NGOs has occurred not only in developed countries such as those of Europe but also in
developing countries in Africa, Asia and Latin America. The estimated number of international NGOs in 1997 was more than 28,000 (Stirrat & Henkel, 1997). In the case of NGOs in developing countries, to take Kenya as an example, between 1996 and 2003, their number grew from 511 registered NGOs in 1996 to 2,511 in 2003 (World-Resource-Institute, 2005). In Tanzania, there were 41 registered NGOs in 1990 but they had increased to more than 10,000 by 2000 (Reuben, 2002).

2.4 Non-government organisations in the context of changing development theories

NGOs’ effort are closely related to development. As mentioned before, during the past two decades, NGOs have increasingly been recognised by donors as pivotal actors working in development in the forms of service delivery and/or policy advocacy at local, national, and international levels (Edwards & Hulme, 1995). Moreover, the Overseas Development Institute (ODI) conference in London in 1987 for the first time recognised NGOs as actors bringing about ‘development alternatives’ in terms of both ideas and practices (i.e. ideas of empowerment, participation, and gender issues). These ‘development alternatives’ are expected to challenge governments’ top-down models for applying social policies (Bebbington et al., 2007). Therefore, to gain more critical understanding of development NGOs, it is important to link this study with theoretical and practical ideas about development.

The meaning and content of the term ‘development’ is never easily defined but complex, contestable and even open to distortion (Peet & Hartwick, 2009; Simon, 1997). Development can be defined as both positive change and evolution. Bebbington et al. (2007) made a distinction between ‘big D’ development and ‘little d’ development. ‘Big D’ development is deliberate intervention, covering such activities as community organising, micro-finance, and donor-driven interventions; while ‘little d’ development is the outcome of unfolding processes of capitalist growth and change. Similarly, Gardner and Lewis (1996) differentiate ‘developing’ from ‘developed’. ‘Developing’ refers to efforts to achieve positive change: whereas ‘developed’ refers to a value judgment of the level achieved as compared to other levels. For instance, compared to richer countries that have been developed, poorer countries are undeveloped or in the process of being developed.
Development as ‘positive change’ or progress can be simply defined as “making a better life for everyone” (Peet & Hartwick, 2009, p. 1) or as “Constituting any diverse and multifaceted process of predominantly positive change in the quality of life for individuals and society in both material and non material respects” (Simon, 2003, p. 8). In short, development is about improvement, but there is not complete agreement among theorists and practitioners about the criteria of better life, better life for whom, and how to pursue it.

Not only the meaning but also the content of the term ‘development’ is varied. For example, in the view of the growth theories (e.g. neo-classical economics, neo-liberalism and modernisation theory), the meaning of development is largely reduced to economic growth rather than distribution. These theories assume that markets have paramount influence on the competitive economic behaviour of people, who should be urged to pursue technological advances and economic growth (Peet & Hartwick, 2009; Sachs, 1992). By supporting capitalist structures and accepting competition in free markets, the thinking of neo-classical economics faced its inevitable consequences in the Great Economic Depression of the 1930’s. It has concentrated wealth in a few places and in the hands of a few people, and thus has arguably created an unequal world that has kept billions in poverty (Peet & Hartwick, 2009). Development that places more emphasis on economic growth has been challenged by perspectives of ‘people-centered’ development that emphasize participation and empowerment as well as gender- and rights-based development (Lewis & Kanji, 2009).

Various perspectives on development have emerged along with theories that conceptualise how it should be conducted. Lewis and Kanji (2009) pointed out that while some development theories (e.g. modernisation and dependency theory) have attributed less important roles to NGOs in development, others (i.e. institutionalism and neo-liberalism) have engaged more fully with NGOs – impacting upon their work. In turn, NGOs have contributed to link development theories and practices. However, NGOs have usually been focused on theories about development practice (i.e. alternative development). Therefore, according to Bebbington et al. (2008), NGOs tend to be associated more with interventions rather than systemic changes.
Table 2.3: NGOs in the context of changing development theory

<table>
<thead>
<tr>
<th>Development Theory</th>
<th>Main Development Idea</th>
<th>Role of NGOs</th>
</tr>
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<tbody>
<tr>
<td>‘Modernisation’ (key author: W.W. Rostow, 1960)</td>
<td>Transition from pre-capitalist conditions to modern capitalist growth and change</td>
<td>NGOs are rarely mentioned</td>
</tr>
<tr>
<td>‘Dependency’ (key author: A Gunder Frank, 1969)</td>
<td>Underdevelopment as a continuing condition of subordination after the colonial exploitation of Third World ‘peripheries’ by Western ‘core’ countries.</td>
<td>NGOs are rarely mentioned, but ‘social movements’ are often seen as positive forces for liberation and revolutionary change.</td>
</tr>
<tr>
<td>‘Institutionalism’ (key author: E.A. Brett, 1993)</td>
<td>Only by improving structural relationships and economic incentives will optimum conditions for development be achieved.</td>
<td>NGOs are seen as one of the three main institutional sectors; with the ‘right’ rules and incentives in place, and in optimum circumstances and contexts, NGOs can have comparative advantages over the other two sectors in providing services.</td>
</tr>
<tr>
<td>‘Neo-liberalism’ (key author: J. Sachs, 2004)</td>
<td>Making globalisation work for the poor: market mechanisms are the key to unlocking the potential of developing countries to grow economically</td>
<td>NGOs are flexible agents of democratisation and private-sector, cost-effective service delivery.</td>
</tr>
<tr>
<td>Alternative development (key author: J. Clark, 1991)</td>
<td>Grassroots perspectives, gender equality, empowerment and bottom-up participation are the keys to sustainable and equitable development processes.</td>
<td>NGOs are critical actors in terms of their closeness to the poor and their ability to challenge top-down, mainstream development orthodoxies.</td>
</tr>
<tr>
<td>‘Post development’ (key author: A. Escobar, 1995)</td>
<td>The idea of development is itself an undesirable Western imposition on the rest of the world - we therefore need to abandon it.</td>
<td>NGOs are agents of modernisation, destroying local cultures and economies; only local social movements constitute useful sites of resistance to these processes.</td>
</tr>
</tbody>
</table>


Among the development theories mentioned above, neo-liberalism and alternative development theory are those which mention the importance of NGOs’ roles in development. Therefore, the following discussion will focus on how neo-liberalism and alternative development theory have engaged with, or have impacted upon, NGOs and how NGOs have contributed to development theories.

2.4.1 Neo-liberalism

From the 1980s onward, neo-liberalism sought to replace an ineffective state structure for the public provision of services with market-driven and private sector activity. One of the main aims of neo-liberalism is rolling back the state, especially in the ‘third world’ as states are commonly viewed as ineffective, corrupt and over-bureaucratic (Gideon, 1998;
Ife & Tesoriero, 2006). The proponents of neo-liberalism believe that the efficiency of human services’ provision, competition, individual choice and service accountability can be enhanced through the free market if state control over capital, goods and services is minimised (Campfens, 1999).

Three main principles of neo-liberalism are: (i) marketisation; (ii) increasing the role of the private sector; and (iii) deregulation and voluntarism (Humphreys, 2009; Jessop, 2002). Therefore, privatisation of state-owned services, decentralisation, reduction of public expenditures (Gideon, 1998; Peet & Hartwick, 2009), trade liberalisation, tax reform, more power for multinational corporations, and unrestricted globalisation are important to ease the way towards free markets (Peet & Harwick, 2009). Privatisation is important in the neo-liberal agenda, as it is seen as a tool to reduce the burden on government budgets. Besides, private actors are regarded as more efficient than public sectors in providing public services (Williamson, 1990). Thus, free markets without state intervention are viewed by some as the best policy for creating competition among individuals to pursue a better life, as it is impossible for the state to keep economics in a steady equilibrium of demand and supply.

To improve global economic growth, the proponents of neo-liberalism implemented its agenda through the global transformation that was promoted by Margaret Thatcher (the then prime minister of Great Britain) and Ronald Reagan (the then president of the United State) in the early 1980s. The advocates of this agenda were supported by the International Monetary Fund (IMF) and World Bank (WB) to restructure not only Western society but also other societies through structural adjustment programs (SAPs). These programs offered new loans for countries around the world to finance their previous debts. Many poor countries with huge debts have no other option but to accept the new loans (Campfens, 1999; Khor, 2001; Shiva, 1999).

Consequently, to meet their repayment obligations, governments accepting such loans must:

- Cut off subsidies for the poor; reduce wages for labour and minimise state bureaucracy; raise the price of goods and services;
- Emphasise domestic production and consumption;
Focus on exports; enter the industrialised, modern, profit-oriented world; and
Open their countries to the competitive world of global markets (Campfens, 1999).

Instead of being concerned with low-wage workers, women and other disadvantaged people, neo-liberalism supports a less restrictive market whereby rich people can continue to accumulate wealth – this process is said by some to be operating in the guise of freedom and democracy (Burkett, 2011; Peet & Hartwick, 2009). The implementation of the neo-liberal agenda through SAPs has burdened the poor and increased poverty. As a response, there were more funds from donor agencies for basic social services for vulnerable people. Increasingly, the donor community came to recognise, and advocate for the role of non-state actors including NGOs in service delivery and advocacy (Lewis & Kanji, 2009; Toke & Lauber, 2007).

2.4.2 Alternative development
Chambers (2005) recognised that some NGOs have played important roles in creating ‘alternative’ or people-centered development to address poverty and power inequality. The emergence of alternative development had been influenced by postmodernism, as well as feminist research and activism. Instead of viewing development as an unerring path towards modernisation, alternative development avoids single or ready-made panacea-style solutions to the problems. Moreover, in relation to feminist projects, it has drawn attention to gender equality (Lewis & Kanji, 2009).

Having attempted to link theory and practice, alternative or people-centered development has tried to challenge top-down development policies and been concerned with power equality (Easterly, 2006; Friedmann, 1992). Rather, alternative development has put emphasized ‘bottom-up’, grassroots, autonomous, and collective action by marginalised communities (Easterly, 2006; Lewis & Kanji, 2009); and is closely related to some issues such as participation, empowerment, and gender. This thesis will focus on the participation of tree growers in NGOs’ farm-forestry programs. Therefore, in the following paragraph, participation will be discussed in more detail than empowerment or gender.
Participation

Originally promoted by the United Nations and other official bodies and implemented in health, education, urban and rural development projects, participation is an integral part of development – since it is impossible to implement policy and programs to create better living conditions for the people without involving them during the process (Campfens, 1999; Midgley et al., 1986).

The Oxford English Dictionary defines participation as “the action or fact of partaking, having or forming a part of”. The United Nations formulated a simple definition of participation, as “the creation of opportunities to enable all members of a community and the larger society to actively contribute to and influence the development process and to share equitably in the fruits of development” (United Nations, 1981). Another definition is from The United Nations Economic and Social Council resolution 1929 (LVIII): “participation requires the voluntary and democratic involvement of people in, 1) contributing to development effort, 2) sharing equitably in the benefits derived there from and 3) decision-making in respect of setting goals, formulating policies and planning and implementing economic and social development programmes” (Midgley et al., 1986). Thus, community participation is how community members take part in decisions and initiatives that affect their lives, by voluntarily and actively involving themselves in the process of goal setting, planning, and implementation.

The notion of community participation in development studies was not only encouraged by the community development movement in the 1950s and 1960s, but also influenced by western ideology (e.g. democratic theory, populism, and anarchism) as well as western social work and community radicalism. Western democratic theory produced the idea that ordinary citizens have a right to be involved in the decision-making process through direct democracy rather than representative democracy, also called neighbourhood democracy (Midgley et al., 1986). Populism has argued that ordinary people’s participation is important because they have been threatened by modernisation of the economy; and have been exploited and excluded by politicians and bureaucrats from the development and political process. Anarchism considers that the state should be destroyed because formal institutions and coercive authority within the state are a source of oppression. Radical community work methods have also contributed to the idea of community participation, by
a new approach that helps ordinary people to directly influence political action for changes (Midgley et al., 1986).

Therefore, community participation can be viewed as an empowerment process (Alam & Begum, 2005) that can bring about justice especially for deprived, marginalised and excluded people (Innes & Booher, 2004; Johnson, 1984). Moreover, community participation can not only facilitate low cost service delivery but also build a sense of belonging, strengthen community bonds and give participants the capacity to help themselves for a better future (Midgley et al., 1986).

Participation also has cognitive, social, instrumental and political functions (Rahnema, 1992). It can bring a new paradigm of development that is more applicable in different contexts, rather than the traditional model that imitates the social initiatives of the Northern industrialised countries. Participation can be used to:

- Minimise the detachment of policy makers from members of the public, especially the poor (Echeverri-Gent, 1992; Long & Heriot-Watt, 1975);
- Translate government policies (Foley & Martin, 2000);
- Be responsive to the wishes of the people (Brueckner, Duff, McKenna, & Horwitz, 2006); and
- Gain legitimacy for development initiatives and policies (Awang, 2003; Rahnema, 1992) by raising the people’s voice and empowering the powerless (Rahnema, 1992).

It is also useful for addressing the failure of conventional development strategies by stimulating new ideas, and in eradicating all kinds of poverty especially regarding the basic needs of the people (Rahnema, 1992). Since the Second World War, community participation has been increasingly recognised as an important approach in urban and rural development programs (Jewkes & Murcott, 1998) and in the policy-making process (Agrawal & Gupta, 2005; Eko, 2010).

From the more ‘utopian’ definitions, it seems that participation is always a good thing. However, its ability to deliver ‘the good’ wished for by a community depends on its implementation. Participation does not always give opportunity for ordinary people to be actively involved in and benefit from development – as the notion of ‘participation’ can be
seen and used in different ways by different actors in accomplishing their particular interests (Ife & Tesoriero, 2006; Race & Buchy, 1999).

Some scholars have tried to capture the different meanings of participation in practice using scales or typologies. The United Nations Research Institute for Social Development (UNRISD, 1980) distinguished between authentic participation and pseudo-participation. Unlike pseudo-participation that is imposed from above, authentic participation arises from the grassroots level. It is concerned with equitability in the sharing of development outcomes, empowering people to raise their voice and influence these outcomes (Midgley et al., 1986). Moreover, the (UnitedNations, 1981) differentiated between spontaneous, induced, and coerced participation. Among those kinds, spontaneous participation is regarded as the closest to ideal participation, as it is more voluntary and fosters more self-reliant action or independence from external agents’ help.

Furthermore, participation could be transitive or intransitive. Transitive participation aims to achieve an intended goal or target, while intransitive participation is that which has no predefined purpose since the participation is meant to be a partaking process (Rahnema, 1992; Sachs, 1992). Similarly Oakley (1991) categorised participation into participation as a means and participation as an end. Participation as a means is a passive form which is a way to achieve pre-determined project goals, with its main concern being mobilising a community for service delivery efficiency rather than the act of participation itself. Participation as an end is more active and dynamic. It focuses on empowering or improving the ability of the people to participate in their own development more meaningfully. Another similar categorisation contrasts instrumental participation and transformative participation. Instrumental participation is a tool for achieving a specific purpose or end, while transformative participation is keen on promoting participation to foster social change (Buchy & Race, 2001; Nelson & Wright, 1995). This distinction is important in order to understand what type of participatory process should be chosen, the resources needed, the role of communities, and the expected outcome.

From the definition and classification of participation mentioned above it can be inferred that participation cannot be separated from the role, influence or control of external agents (e.g. government, NGOs). In relation to the role of external actors in
supporting participation, UK Health for All Network (1991) developed a degree of participation scale that scrutinises the control of organisations as outsiders over their constituent communities, as described in Table 2.4.

**Table 2.4: Deliberative participatory democracy**

<table>
<thead>
<tr>
<th>Low</th>
<th>Community is told nothing.</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receives</td>
<td>Organisation makes a plan and announces it. Community is convened for information purposes.</td>
<td>information</td>
</tr>
<tr>
<td>Is consulted</td>
<td>Organisation tries to promote a plan. Seeks to develop support to facilitate acceptance, or give sufficient sanction to plan so that administrative compliance can be expected.</td>
<td></td>
</tr>
<tr>
<td>Advises</td>
<td>Organisation presents a plan and invites questions. Prepared to modify plan only if absolutely necessary.</td>
<td></td>
</tr>
<tr>
<td>Plans jointly</td>
<td>Organisation presents a tentative plan subject to change and is open to advice from those affected. Subsequently expects to change plan at least slightly and perhaps more.</td>
<td></td>
</tr>
<tr>
<td>Has delegated</td>
<td>Organisation identifies and presents a problem to the community, defines the limits, and asks community to make a series of decisions that can be embodied in a plan, which it will accept.</td>
<td></td>
</tr>
</tbody>
</table>

**High**

| High           | Organisation asks community to identify the problem and make all key decisions on goals and means. Willing to help community at each step to accomplish goals. | Has control   |

*Source: UK Health for All Network (1991).*

Among various interpretations of participation, the conventional view is rigid, inflexible and focused on technocratic and bureaucratic procedures, which has dominated the implementation of community participation in policy-making and development practices (Eko, 2010). As participation has been conducted in this case after the agenda setting and decision-making process (King, Feltey, & Susel, 1998), this approach has been ineffective in addressing local problems (Eko, 2010). King et al. (1998) argued that community participation through public hearings conducted by government is often designed to convince the public of the worth of, and ensure its compliance with, the pre-existing policy, so that it is unlikely to deliver change.

According to Rahnema (1992), in development practices participation has been manipulated and used by many governments and institutional agents for many reasons. First, it has been a tool to gain community support for global efforts, and the need of external agents to succeed in modernisation and economic development, rather than meeting the social and cultural needs of the community; second, it has been an attractive
slogan to make a good impression among community to create support for politicians’
strategies; third, to elicit money from development donors for a project that is labelled a
self-help program; and fourth, to attract foreign aid with their promise of being
participatory, non-bureaucratic, efficient agents that are close to the people.

The role of external actors in initiating and supporting development is
unquestionably important to bring about a better life for communities. However,
community participation can be susceptible to external imposition. Instead of encouraging
a community to decide its own affairs, it is possible for project implementers to intervene
and dictate that their own views be adopted by the community (Ife & Tesoriero, 2006;
Midgley et al., 1986). For example, governments can manipulate the community to
participate in a community development project for achieving government goals, as stated
above (Balloch & Taylor, 2001).

Despite claims of NGOs having many advantages over governments in delivering
development initiatives (e.g. being less bureaucratic, more dynamic, flexible, close to the
people, sensitive, committed to social needs, effective, innovative, and radical, as well as
having international funding networks), NGOs have many limitations in promoting
spontaneous participation. Among these are:

- NGOs, especially the big ones, can be bureaucratically top-heavy, inflexible and less
  than adaptable;
- It is difficult for them to be innovative if they are strongly controlled by leaders who
  are resistant to change;
- sometimes there is no coordination among NGOs because of competition among them
  in providing services;
- It is not easy for NGOs to guarantee the continuity of their programs if NGOs depend
  on external funding. This failing can, in turn, create dependency on external funding
  among beneficiaries (Be’jar, 1998; Midgley et al., 1986); and
- NGOs may neglect communities’ initiatives, needs, knowledge and roles if the NGOs
  force their views or knowledge on communities as if they know the communities’
  needs and problems better than the communities themselves (Midgley et al., 1986).

For example, since the 1960s, development programs in Latin America have been
carried out by externals actors, especially NGOs, following various themes and
methodologies. To minimise the social impact of neo-liberal’s structural adjustment programs (SAPs), some of the external initiatives aided by NGOs have delivered benefits in organising and improving the livelihood of the metropolitan poor (e.g. in Santiago de Chile, Buenos Aires, Ciudad de Mexico and Lima) through safety-valve programs. These NGOs support poor communities in fighting for their rights to basic necessities (Be`jar, 1998). Despite this success, however, some other development projects initiated by external actors in Latin America did not become well-established. These external actors have failed to bring about intended changes through the continuity of their projects.

The ineffective project implementation was rooted in the failure of external actors to assimilate their intentions with those of communities. These actors tried to integrate Western norms that emphasise productivity and intensive exploitation to generate maximum benefit using indigenous communities’ norms. By contrast, the communities preferred to fight for their rights to land, and to maintain their traditions rather than pursuing high agricultural productivity and profit, that were not part of their culture. Therefore, it led to passive participation. When projects were finished and external actors left, communities went back to their previous habits (Be`jar, 1998). In reality, each group of actors may have different or incongruent expectations from community development initiatives. A local community may view development as a tool to solve a food scarcity problem by implementing a labour intensive system. In contrast, external actors may regard development as a device for modernising them and moving them away from labour intensive towards industrial-based activities (Scott, 1976).

An important lesson from ineffective development is that people’s ideas of what development means, how to achieve it, and the extent of the roles of external and internal actors, are important grasp for development to be effective (Fry & Galen, 1991). Communities as intended beneficiaries should be given the opportunity to control development planning and processes that affect their lives (Chambers, 1997; Hobart, 1993).

The ineffective participation found in development practices shows because it involves different interests, beliefs and perceptions of many actors is not simple to
implement. Community participation is a complicated issue since there remains the question of:

- The ability of the state’s political elite and administrators to share their authority with the people;
- The capability of the people (especially in developing countries) to overcome their problems regarding poverty and deprivation mainly through their own resources and efforts; and
- Whether state and community involvement can be synchronised or are essentially contradictory (Midgley et al., 1986).

Moreover, community participation is not simple in terms of who should participate. It is not easy to answer this question because there is no single definition or common understanding regarding ‘community’ as illustrated previously. The definition of ‘community’ is not only broad but the word is also used loosely. Community can refer to a neighbourhood, village, district, town or even city. Some authors (Hollnsteiner, 1982) prefer to relate the notion of community to states of deprivation and disadvantage, for example impoverished villages or urban neighbourhoods, rather than considering the whole range of possible groups. It is the poorest or most disadvantaged community that should be encouraged to participate most, since its members have little power and access to resources compared to local elites (Midgley et al., 1986). However other authors (White, 1982) disagree and argue that those who should participate are not only the most likely beneficiaries of participation but everyone in the community.

The other challenge in implementing participation is that community is not always cohesive and static. There are power differences resulting in domination, and conflicting interests between elite and non-elite members even within deprived communities (Midgley et al., 1986). These elites can use their social power to influence the decision-making process (Echeverri-Gent, 1992). Discussions at local level using highly technical and legal ‘jargon’ are often dominated by vocal minority groups, as it is difficult for farmers or uneducated/illiterate people to understand such terms (Gaventa, 2002).

Another cause of ineffective participation is unsuitable timing of meetings for participants. It is difficult for people to participate in them if they are organised at a fixed
place and time when people are still at work (Kingston, 2007). It seems to be difficult for those in full-time employment elsewhere to actively participate in the policy-making process (Jewkes & Murcott, 1998). The importance of fulfilling basic needs, for example through agriculture activities, can also hinder community involvement, even though people would like to take part. Evidently the realities of daily life related to the social class or position of the people (e.g. time constraints, family structure, economic disadvantages, transportation, childcare, and labour needs) can be barriers to participation (King et al., 1998).

How community participation should be implemented is also a difficult question. To create a more participatory and locally-based approach to development, Ward, Solomon, Ballif-Spanvill and Furhriman (2008) suggested several steps, based on a study in Mali, Africa. Before development begins, all actors or participants (e.g. NGOs as sponsors and partner communities as beneficiaries) should negotiate a commonly accepted framework about the intentions of development activities, and the roles of all participants at every stage. The second step is that all actors identify possible constraints on participation and negotiate solutions in advance. Third, sponsors or initiators of development should use a flexible management and operational approach that allows communities to adjust it to their varying needs and circumstances. Fourth, development should be directed to create a better life for all segments of the community by encouraging them, regardless of age or gender, to exercise their power in the decision-making process. Finally, development initiators or sponsors should understand, respect and take into account culture and local knowledge. Communities have experience that can help to solve their problems, and know better about their needs, values, limitations and strengths. It is important to build trust between initiators and beneficiaries, and to create more locally acceptable development.

Due to several limitations of external actor-led development in involving local people meaningfully, spontaneous, self-initiated, bottom-up development continues to be viewed as the ideal approach to development. However, it seems to be difficult to implement if communities lack initiative and have weak motivation. Although communities have initiative, they may lack funds and expertise and need external resources to support their activities (Midgley et al., 1986). Moreover, self-initiated development
needs leadership that can mobilise communities, by using social capital along with limited financial and human resources (Onyx & Leonard, 2010). The problem is that leadership in self-organising networks may not emerge easily. ‘Complexity theory’ asserts that the emergence of self-organising networks is triggered by tension or chaos between equilibrium and disequilibrium that provides room for individuals or groups to create networks, communicate and discuss options for actions to challenge the status quo (Plowman, Solansky, & Beck, 2007).

From five case studies in Australia, Peru, Uruguay and Sweden, Onix and Leonard (2010) identified seven elements of leadership for successful community development:

1. Leaders and leadership groups should be integrated with the local network rather than holding the first position in the network.
2. All decisions should not only be leaders’ decisions but should be shared by various stakeholders.
3. To augment limited human and financial resources, leaders should open and be able to build links with outside networks.
4. Leaders should have a vision that is suited to their communities and be able to identify possible ways to achieve it.
5. Good leaders should have practical management skills to conduct the projects, and the ability to share their skills with other people.
6. Leaders should prepare succession planning, so projects continue if they leave.
7. Due to internal and external challenges, leaders should have energy and commitment to pursue shared goals.

**Empowerment and gender**

Along with participation, empowerment has become an important element in ‘alternative’ development approaches. It is rooted in the view that poverty is an outcome of unequal power relations rather than merely a lack of material resources (Lewis & Kanji, 2009), as people’s incorporation into unequal power relationships can limit their capacity to think and act (Friedmann, 1992).

Friedmann (1992) identified three kinds of power, namely social power (i.e. access to information, skills and financial resources), political power (i.e. access to decision-
making processes) and psychological power (i.e. self-confident behaviour). Empowerment has been practised in various ways in daily life, as it is a multifaceted concept. The Western social work tradition emphasises empowerment as a process of personal development; or an individual process that facilitates individual and collective actions for improving public well-being (Rowlands, 1995). Oppositely, Paolo Freire in his ‘conscientisation’ theory pointed out that empowerment implied collective action, or a process to organise grassroots groups that is supported by non-directive outsiders for achieving class-based empowerment (Lewis & Kanji, 2009). But Rowlands (1995) argued that empowerment operate at three levels: personal (enhancing self-confidence); relational (renegotiating close ties and gaining greater decision-making power); and collective (building links for cooperation). Moreover, according to Rowlands (1995), empowerment is effective if it can build ‘power to’ (a generative view of power in which people stimulate activity in others) as a way to resist or challenge ‘power over’ (control or influence by some people over others).

While participation and empowerment have been conducted mostly by NGOs working in rural development (Lewis & Kanji, 2009); gender equality has been raised mostly by feminist scholar and women’s groups, as community participation often neglected unequal gender relations in community (Sen & Grown, 1988, 1985). According to Sen and Grown (1985), it is not satisfactory development without gender equity and the participation of women.

2.5 Non-government organisations’ roles as alternative development agents within neo-liberal development policies

As the core of alternative development approaches; participation, empowerment and gender have been influential in development practices. However, in some cases, the ambiguity of these three terms can be manipulated to achieve interests of various actors (Cornwall & Brock, 2005). Similarly, Rahmema (1992) pointed out that, alternative development approaches can lose their transformative power and become tools for bringing the agendas of development agencies into community.

Lewis and Kanji (2009) recognised several areas in which NGOs may have
limitations in playing their roles as alternative development agents. Firstly, NGOs’ ability to implement these approaches were often small-scale and unsustainable, since few NGOs are involved in projects that challenge the wider structural context. Therefore, such groups are ineffective in solving local problems which are closely related to wider structural issues. Secondly, in some cases, NGOs’ efforts to work with local groups could disempower and weaken the local autonomous structures. Thirdly, there could be unequal power between Northern and Southern NGOs in their partnership relation, so that Northern NGOs with their *modus operandi* based on professional expertise may dominate Southern NGOs.

This limitation of NGOs in their roles as alternative development agents cannot be separated from neo-liberal development policies that became hegemonic in the early 1990’s. As mentioned before, neoliberal discourse – promoting marketisation and privatisation – had increased the interest of donors in NGOs as private service delivery agents. Then the implementation of the neo-liberal agenda through SAPs, that drastically cut off provision of social service, led to greater advocacy of the role of NGOs.

While this situation has offered opportunities for NGOs to enlarge their roles in development, it has also created pressures for NGOs to limit their roles as agents of alternative development. Lewis and Kanji (2009) identified three types of NGOs in relation to their function as alternative development agents within neo-liberal development policies: the first act as a contracted agents to provide services; the second are radical NGOs that work outside neo-liberal mainstream development orthodoxy; and the third are NGOs that act as contracted agents to gain influence for bringing about alternative development ideas in policy advocacy work within mainstream development.

Moreover, Kamat (2004) pointed out that Bretton Woods Institutions that support the existence of the neo-liberal consensus (i.e. The World Bank, the International Monetary Fund/IMF, and the World Trade Organisation/WTO) try to regulate civil society. These institutions not only pluralise the term ‘NGO’ (by including market, industry, and business actors in it), but also depoliticise NGOs through their donor agencies. This pressure causes NGOs to shift their focus from education and empowerment programs towards a more technical managerial approach.
According to Bristow (2008), these pressures from donor agencies have moved NGOs away from alternative development approaches, towards neo-liberal approaches that are pro-market and technology-centered. Even though NGOs in some cases could influence international negotiations in global governance, they have not been able to influence the dominance of the neo-liberal discourse.

2.6 Non-government organisations within global governance

According to Keohane and Nye’s (2000, p. 12) governance is “the processes and institutions, both formal and informal, that guide and retrain the collective activities of a group. (...) Governance need not necessarily be conducted exclusively by governments and the international organisations to which they delegate authority. Private firms, associations of firms, NGOs and associations of NGOs all engage in it, often in association with governmental bodies, to create governance; sometimes without governmental authority”. Similarly, the Commission on Global Governance (CGG) defined governance as “the sum of the many ways in which individuals and institutions, both private and public, manage their common affairs” (CGG, 1995, p. 2).

In a broad sense, governance refers to ‘any’ mode of public-coordination, either ‘classical hierarchical’ or ‘post-modern bottom-up’ (Heritier, 2001). In a more restricted meaning, governance refers to a ‘new’ mode of public-coordination that implies ‘governance without government’ which excludes traditional government from the governance concept (Van Kersbergen and Van Waarden, 2001). While Knil and Lehmkuhl (2002) consider governance as ‘all’ modes of public-coordination that involve public, private or mixed actor groups.

In the study of international relations, the concept is generally referred to as ‘global governance’ (Nye & Donahue, 2000) which can be understood as ‘governance without government’ (Rosenau & Czempiel, 1992). Therefore, global governance is closely related to the increasing roles of non-state actors (NSAs) in shaping international networks of governance.

Non-state actors (NSAs) are all those actors that are not (representative of) states
but operate at the international level; and that are potentially relevant to international relations (Arts et al., 2001; Higgot et al., 2000). NSAs include: International Government Organisations/IGOs (e.g. UN, WTO); Non-government organisations/NGOs; Corporate Interest Groups (CIGs) and Transnational Corporations (TNCs); Epistemic Communities (international networks of experts); and a remainder category (i.e. Churches, Scouts, etc.) (Arts, 2003a).

As one kind of NSA, NGOs have played influential roles in campaigning for the protection of forests, for example (Sears et al., 2001). In relation to global governance, according to Arts (2003a), NGOs have linked scales, re-articulated scales and organised beyond scales. NGOs have contributed to linking up scales by ‘thinking globally, acting locally’, as well as by ‘thinking and acting globally, as well as locally’. In this sense, NGOs have contributed to the emergence of global consciousness, linked to local practices, as well as to the emergence of a multi-level policy (Arts, 2003a). NGOs also have contributed to re-articulating scales (the global and the local) by re-conceptualising local issues into global ones (and vice versa); and bringing local interests to international negotiating tables (and vice versa) (Arts, 2003a). Moreover, NGOs have played their roles in organising beyond scales by organising themselves locally as well as globally, for example by building up virtual and glocalised networks (Arts, 2003a).

There are examples of these three ‘claims’ regarding linking-up scales, re-articulating scales, and organising beyond scales used by NGOs. The first is the case related to biodiversity conventions. NGOs, notably IUCN have defined the issue (‘biodiversity as a policy concept’), globalised the issue in terms of principles and consequences (‘biodiversity protection as a global norm’), and then proposed the policy instrument needed (‘a biodiversity treaty’). These bodies have contributed to re-articulating biodiversity protection as local contexts become part of the global environmental policy agenda. Moreover, some NGOs also organise beyond scale by building up new networks, such as the Biodiversity Action Network, that link local, national, and international NGOs in order to monitor the negotiations and implementation. Through these networks, the NGOs also re-articulate local testimonies of biodiversity loss to the UN headquarters (Arts, 2003a).
The second example is the case related to human rights. NGOs, notably some American NGOs, have re-articulated domestic abuse of human rights so that it has become part of the global political agenda. Moreover, some human rights NGOs also create a linking-up scale by developing a two-level approach, building upon local watch groups on the one hand and transnational pressure on the other. These efforts have internationalised local facts and also localised global norms. Finally, these NGOs have organised beyond scale by bringing the stories of victims to governments, international organisations, and individuals around the world; as well as by establishing interpersonal links and international solidarity among citizens (Arts, 2003a).

The third example is related to deforestation. NGOs have re-articulated the issue of deforestation through their (international) campaigns and also re-framed the issue using global terms. NGOs have also organised beyond scale by constructing international regulations when governments have failed to agree to such regulation. They have become policy-makers themselves, together with some parts of the forest industry. Through the establishment of the FSC, NGOs linked scales by implementing a forest management standard which has two forms: the national and the international one. This certification represented a system of (private) multi-level governance (Arts, 2003a).

According to Arts (2003b), NSAs, including NGOs, are also capable of reshaping the patterns and outcomes of global governance through the three faces of power: (1) decisional power, related to policy-making and political influence; (2) discursive power, related to the framing of discourse; and (3) regulatory power, related to rule-making and institution-building. Power is defined as “the organizational and discursive capacity of agencies, either in competition with others or jointly, to achieve certain outcomes in global governance, a capacity which is, however, co-determined by the social structures in which these agencies operate” (Arts, 2003b; p. 14).

To influence the decision-making process, NSAs have several strategies which may overlap: lobbying, advocacy, monitoring, protest and participation (Huberts, 1989; Van Noort et al., 1987; Van Schendelen, 2002). The key variables which are the main factors for NSAs’ political influence are ‘resources’, such as policy-relevant knowledge and ‘political access’ (Arts, 2003b). The intended outcome of decisional power is the relevant
A political strategy related to the second type, discursive power, consists of naming, framing, and campaigning. ‘Naming’ refers to any process of defining properties, events, processes, etc. in certain politically relevant ways (Van Tatenhove et al., 2000); ‘framing’ to the process of bringing elements together in a more or less coherent story (McAdams et al., 1996); and ‘campaigning’ to the process of spreading this story into societies and political systems in order to challenge and change dominant political discourses (Keck & Sikkink, 1998). Factors needed in exercising discursive power strategies are moral authority, access to the mass media and the legitimacy of the dominant discourse that is being challenged (Hajer, 1995; McAdams et al., 1996; Risse, 2000). The preferred outcome of discursive power is discourse (i.e. about values, norms, and concepts).

In relation to regulatory power, there are four types of rules: (1) principles (moral and causal beliefs); (2) norms (rights and duties); (3) regulations (pre- or proscription for action); and (4) procedures (decision-making rules) (Krasner, 1983). The last two categories (regulations and procedures) belong to regulative rules, hence they are related to institutions and regulatory power, while the first two categories (principles and norms) inform discourses and discursive power (Dessler, 1989; Giddens, 1984). Based on these differences, related to rule-making by NSAs in the context of regulatory power, it speaks of standards and standard-setting (compare: Haufler, 2000; Held, 2002; Kerwer, 2002). Kerwer (2002, p. 298) defines a standard as an expertise-based voluntary rule on organisational structures and procedures. Yet this definition is void of any substance: it only refers to structures and procedures. According to Arts (2003b), p.33: “rule-making in the context of NSAs’ regulatory power is to be considered standard-setting, whereby a standard is defined as an expertise-based voluntary rule on organizational regulations, structures and/or procedures”. Therefore expertise is the main factor needed for NSAs in exercising regulatory power. The intended outcomes of regulatory power are standards in this instance.

There are three examples – biodiversity, human rights and environmental standards – showing NSAs are capable of reshaping the patterns and outcomes of global governance
through decisional, discursive and regulatory power. In the case of biodiversity, IUCN has played an influential role in the formation of the Biodiversity Convention through: bringing this issue to the international ‘green’ agenda; formulating drafts of a biodiversity treaty; delivering expertise to help negotiate the convention; and monitoring its implementation. This case shows that in reshaping global governance through decisional power, the IUCN’s substantive expertise and its access to intergovernmental decision-making were key factors for successful intervention (Arts, 2003b).

In relation to discursive power, a broad range of NGOs – from peace and religious groups in the 1940’s to Amnesty International from the 1960’s onward – have expressed their respect for human rights, and making their concern brought an international priority. Consequently, the dominant discourse on national sovereignty has been (partially) reframed. Therefore, governments cannot legitimise the violation of human rights by referring to the sovereign right of states. This case illustrates that in reshaping global governance through discursive power the moral authority of NGOs, their access to the media, and the contested legitimacy of the national sovereignty discourse were important factors (Arts, 2003b).

In the case of environmental standards, TNCs and industrial associations have designed and institutionalised environmental management systems, such as Responsible Care and ISO 14001. Not only have these companies’ standards become the leading ones in their fields at the global level, they have also contributed to improving the environmental performance of firms. Further, they have bolstered the implementation of environmental policy in general. In shaping global governance through regulatory power, the technical expertise and the existence of an ‘institutional void’ with regard to the standards to be developed were considered important factors (Arts, 2003b). How NGOs use their roles and power in setting environmental standards will be illustrated in Chapter 3 in the context of forest certification.

2.7 Non-goverment organisations and the aid systems

As mentioned before, the rapid growth of NGOs is mostly driven by donors. Donors can be understood as ‘organisations that provide official private development funding’ (Elbers & Arts, 2011, p.718). NGOs as non-profit and voluntary agents need financial resources to be
able to survive, which can come from individuals’ private donations and state subsidies, as well as grants from charitable foundations and other institutions. In implementing their programs, many United Nation agencies (e.g. UNICEF, UNHCR, FAO, UN Commission of Human Rights, UNFPA, and UNDP) have chosen NGOs as development partners and contractors (Elbers & Arts, 2011; Salomon, 1995; Walker, 1991).

In the mid- to late-1990s, UNHCR and WFP directed an estimated US$1.5 to 2.2 billion of their aid to Southern NGOs while the World Bank increased the involvement of NGOs in its work from 6 percent of its projects in 1988 to 30 percent in the late-1990s (World Bank, 1996, 2001). The European Union (EU) is another intergovernmental organisation that has rapidly increased its funding for NGOs from an estimated US$3.2 million in the mid-1970s to an estimated US$1 billion by 1995. Most of this funding is channelled through service delivery NGOs with part of it being directed through advocacy NGOs (Randel & German, 1999).

Moreover, bilateral aid agencies in Western democratic states have also provided important support for NGOs. Since the end of the Cold War in the 1990’s, support from bilateral aid donors for NGOs has increased, to promote the growth of civil society influenced by the new wave of democratisation in many countries (Carothers, 1999). Bilateral aid agencies from Organisation for Economic Cooperation and Development (OECD) countries, and other countries (e.g. United States, Canada, the Netherlands, Germany, Switzerland, and the Nordic countries), directed an estimated 10 to 25 percent of their total annual foreign funding through NGOs (Smillie & Helmich, 1993). The proportion of total aid channelled through NGOs by the OECD increased from about 2.9 percent in 1975-1985 to at least 5 percent in 1993-1994 (OECD, 1988; 1994; 1995). By 1995, over 15 per cent of total overseas development aid was delivered through NGOs (Greensmith, 2001). Most of the funding is channelled through service delivery NGOs in dealing with humanitarian problems, while part of it has gone to advocacy NGOs to promote democracy, transparency, human rights, and anti-corruption measures (Carothers, 1999).

Quasi-governmental foundations that are funded by the U.S. government (e.g. the Asia Foundation, the Inter-American Foundation) have also provided funding for both
service delivery and advocacy NGOs for development and election monitoring projects since the 1980s (Reimann, 2001). Grants for NGOs from private foundations have drastically increased from the 1980s to 1990s. In 1999-2000 14 private foundations (e.g. the Carnegie, Ford, Kellogg, Hewlett, and Gates foundations) have channelled an estimated US$1.1 billion through advocacy NGOs, especially in the United States, where many advocacy NGOs prefer to receive non-state funding (Walker, 1991).

In Indonesia, for example, there were an estimated 8,000 NGOs operating in 1999. It is easier for big NGOs (Bingos) to access government and external funding than for little NGOs, as most funding agencies prefer to work with well-established NGOs that can prove their capability in a certain sector. Little NGOs (Lingos) typically depend on external funding from one grant to the next to underpin their activities and maintain their programs. Indonesian NGOs mostly depend on government and external funding because mobilising domestic financial support is difficult, especially for Lingos. One Indonesian NGO that has been relatively successful in mobilising domestic non-government financial support is WALHI (Wahana Lingkungan Hidup), which comprises about 25 percent of WALHI’s funds (ADB, 1999).

The increasing availability of donor aid for NGOs, especially for Southern NGOs (SNGOs), may have mixed consequences. The aid may provide opportunities for them but it could also create dependence on the funding. NGOs could use the aid to make their voice heard more clearly and to support their operations in lobbying and advocacy; however becoming more reliant on donors can limit their abilities in exercising their agendas (Edwards & Hulme, 1995). To win competition for funding, NGOs may abandon their original goals so as to meet targets and performance standards required by donors (Ebdon, 1995). In order to attract funds, NGOs also prefer to achieve “immediate and spectacular results, which respond more to the trends and current myths than to the needs of social groups” (Alatorr & Aquilar, 1994, p. 162). Thus, in the neo-liberal environment, NGOs are forced to prove their accountability to donors rather than to their clients (Edwards & Hulme, 1995).

Most Southern NGOs (SNGOs) depend on donor organisations for their survival (Elbers & Arts, 2011); only a small number could survive on resource support from their
members and service fees (Fowler, 2000). Donor-NGO relationships are often characterised by resource dependence causing a power imbalance between NGOs and their donors (Ebrahim, 2002; Fowler, 2000b; Lister, 2000). Resource dependence theory argues that to obtain the resources needed for their survival, organisations would prioritise the demands of groups that control their resources, by synchronising their agendas with required conditions set by resource providers (Elbers & Arts, 2011; Fowler, 2000; Huddock, 1995; Pfeffer & Salancik, 1978).

Thus, if their survival and existence depend on funding from donors, NGOs do not have much choice other than to implement donors’ policy agendas (Najam, 1996). They may change their concerns or become opportunistic (Edwards & Hulme, 1996; Najam, 1996; Uphoff, 1993) by adjusting their targets in the line with donors’ preferred concerns. For instance, the trends show that there are changes in NGOs’ targets from increasing poor farmers’ incomes (in the 1950s-1960s) and an empowerment approach (in the 1970s) to ‘gender and environment’ (in the 1980s) and ‘sustainable development’ (in the 1990s) (Samuel & Thanikachalam, 2003). By the early 1980s, there were approximately 13,000 NGOs in industrialised countries and about 2,230 NGOs in developing countries that focused their activities on environmental issues (Tsukasa, 2003).

Donor funding is not free from embedded conditions or requirements to be accomplished by NGOs who receive it. Even though donor conditions are often set to achieve effectiveness and efficiency, they may result in problems and unintended outcomes in practice (Bornstein, 2003; Elbers & Arts, 2011; Markowitz & Tice, 2002; Mawdsley, Townsend, Poter, & Oakley, 2002; Michael, 2004; Wallace, Bornstein, & Chapman, 2006). Donor conditions can be understood as “the requirements that SNGOs must adhere to in pre-finance, project, or post-project phases, to qualify for financial support from donor agencies” (Wallace et al., 2006, p. 12).

Through their funding conditions, donors have power to set NGOs’ agendas to suit donors’ concerns (Meyer, 1995; Vivian, 1994) and thus donors are dominating development agendas (Mawdsley et al., 2002). Since NGOs have less independence to set their own agenda, they can be co-opted by other agendas (Edwards & Hulme, 1995; Fowler, 1991; Zaidi, 1999). In more specific terms, donors have power to influence every
step of NGOs’ actions in project design and implementation (Lister, 2000; Michael, 2004) and in project monitoring, reporting and evaluation (Ebrahim, 2002; Elbers & Schulpden, 2010).

Even though each donor may have different requirements, donor conditions usually include project design and planning, upward accountability, and the funding arrangements (Elbers & Arts, 2011). Donors set conditions about project design and planning to determine the type of project they want to support (Elbers & Schulpden, 2010; Michael, 2004). This includes target groups, strategies, target areas and predictable outcomes (Elbers & Arts, 2011; Wallace et al., 2006). In their upward accountability NGOs are required to report, using specific formats, the extent to which their progress and performance adhere to intended results, time schedules and budgets (Ebrahim, 2002, 2003). Funding arrangements usually consist of donors’ requirements for NGOs to spend funding for specific expenses, excluding overhead costs, within certain time periods. Donors also often require NGOs to mention the donors’ name in public statements for branding purposes (Elbers & Arts, 2011; Michael, 2004).

These donor conditions may result in several unintended consequences, as they can limit NGOs’ strength and autonomy, as well as local ownership of development interventions (Elbers & Arts, 2011). Donor conditions can limit the ability of NGOs to adopt participatory approaches, to be sensitive to local knowledge and culture, and to build connections with the grassroots level (Elbers & Schulpden, 2010; Hailey, 2000; Lister, 2000; Wallace et al., 2006). It is common that NGOs become less participatory, employ less community-based approaches, and deliver top-down projects – the goals, planning and methods of which have been decided by donors and NGOs. This situation can lead to misuse of participation so that a local community can only agree to what has been decided by donors and NGOs; and can only be involved in project implementation instead of in project planning (Bebbington & Farrington, 1993; Fowler, 1991; Kaimowitz, 1993; Meyer, 1992; Najam, 1996; Vivian, 1994; Wiggins & Cromwell, 1995).

Rather than being project designers that involve local communities in project planning, NGOs can only become technical delivery agents or contractors for donors, and governments that hire them to implement government projects (Bebbington & Farrington,
Even though they have achieved success in certain areas, if NGOs are less responsive to local people and conditions there is no guarantee that they can replicate their success in other areas (Zaidi, 1999). NGOs that lack a holistic approach may also have difficulty in addressing grassroots problems that are usually interrelated with macro-level policy or a broader context (Vivian, 1994).

Even in the cases of the most community-oriented NGOs, dependence on donors’ money may shift their accountability to be more ‘upwards’ (to more powerful and influencing stakeholders such as donors) at the expense of ‘downwards’ accountability (to the less powerful stakeholders such as their beneficiaries) (Kilby, 2006; Mulgan, 2003; Najam, 1996; Salomon, Hems, & Chinnock, 2000; Zaidi, 1999). Thus, sometimes it would be difficult for NGOs to deliver programs that please their beneficiaries if these NGOs prioritised their accountability to their donors (Edwards & Hulme, 1996; Fowler, 1991).

By receiving external money, NGOs have a responsibility to prove how it has been spent and to what extent it has been used to meet donors’ goals (Murtaza, 2012; Najam, 1996). The NGOs’ failure to accomplish contracted outputs can cause withdrawal of donor support and refusal to provide future funding (Edwards & Hulme, 1996; Murtaza, 2012; Najam, 1996). This situation leads to a patron-client relationship NGOs (Najam, 1996) or sub-contractor relationship (Bornstein, 2003; Hailey, 2000) in which NGOs are subordinate to donors and are obliged to follow their commands (Perera, 1995). To satisfy their donors and to attract further funding, it is also possible for NGOs to manipulate data that demonstrates their success (Vivian, 1994; Zaidi, 1999).

Instead of flexible funding arrangements (Wallace et al., 2006), funding from donors is mostly for time bound and narrowly defined projects. Therefore, NGOs’ work is also mostly time bound and project specific (Bornstein, 2003; Edwards & Hulme, 1996; Michael, 2004; Zaidi, 1999). Since project duration depends on donors’ considerations, donors can delay or halt funding if NGOs fail to accomplish donors’ targets, if donors run out of money, and/ or if donors change their concerns or target areas (Elbers & Arts, 2011; Zaidi, 1999). Donors also usually demand specific outcomes, and are less concerned with process, being more inclined to emphasise quantifiable outputs than NGOs (Edwards & Hulme, 1995, 1996; Kaimovitz, 1993; Meyer, 1992; Vivian, 1994). The funding for short-
term and specific projects cannot allow many opportunities for NGOs to deliver long-term qualitative outputs for grassroots beneficiaries, or to ensure program sustainability (Edwards & Hulme, 1996; Zaidi, 1999). Wallace et al. (2006) argue that donor agendas emphasising planning for predictable outcomes are not suited to people-centred approaches to development that emphasise process over product, and require unpredictability. Donor conditions can also limit the effectiveness of recipient organisations in advocacy and institutional development (Edwards & Hulme, 1996).

Despite the success stories of a few NGOs (e.g. BRAC, the Grameen Bank, Proshika, SEWA, WWF, SPARC, Chipko, Sarvodaya and SANASA) (Zaidi, 1999), and despite claims that NGOs are more ‘cost-effective’ agents than government (Edwards & Hulme, 1995) – the majority of NGOs still face challenges in becoming more participatory, community-oriented, flexible, innovative, cost-effective, (Edwards & Hulme, 1995; Zaidi, 1999), functionally democratic, and able to implement replicable and sustainable projects (Zaidi, 1999). Given NGOs’ limitations, it is not easy for them to play their role as required and achieve expectations that can sometimes appear unrealistic (Zaidi, 1999).

Therefore, despite the expectations of NGOs in delivering development services and shaping policies as described above, their ability to meet them is still questionable (Gideon, 1998). In reality, they are not always able to meet the required standard. Some cases show that some NGOs achieve limited success in alleviating poverty (Mwansa, 2007; Velloso de Santisteban, 2005). If in these cases NGOs could overcome symptoms of poverty, it is still debatable as to whether they can challenge the root problems of poverty (Edwards & Hulme, 1992). NGOs also prove less successful than has been hoped in promoting democracy and social change (Mwansa, 2007; Velloso de Santisteban, 2005). Moreover, some studies show that it is possible for more powerful actors, such as governments, to co-opt NGOs’ agendas and actions (Limoncelli, 2006; Wells, 2007). As a result of the imposition of other actors’ agendas on NGOs, it is possible for NGOs to co-opt and shape local community agendas (Kapoor, 2005; Subramaniam, 2007).

In terms of ‘service provision’, there is evidence that NGOs can provide more cost-effective services compared to governments. For instance, in the Orangi Pilot Project in Pakistan, an NGO could build a sanitation system that cost less than one-third of the
equivalent project cost spent for the commercial or government sectors (Hassan, 1993). However, other studies have produced opposite results (Tendler, 1989) which supports the view that there is no empirical study to illustrate that NGOs’ service provision is lower-cost than public sector service provision (Hulme & Mosley, 1995).

If NGOs’ effectiveness in ‘service provision’ is difficult to demonstrate, so is it also in ‘democratisation’. There is a lack of empirical evidence that can prove the extent of their effective involvement in the formal political process (Edwards & Hulme, 1995). Some cases in Latin America and Africa have illustrated that the hindrance factors that make NGOs less than successful in democratisation are the ability of the state to control such possibilities, and the inability of NGOs themselves to create effective strategies for promoting democratisation (Fowler, 1991). However, in some cases, NGOs have performed better in advocating for human and political rights; for example, they have been catalysts in democratising the informal political process, such as training for grassroots activists, building local institutions, promoting micro-policy reform, and providing education (Friedmann, 1992; Ghai & Vivian, 1992). In some cases, the state can be more cost-effective than NGOs (Kaimowitz, 1993; Wiggins & Cromwell, 1995). Even though NGOs can achieve lower expenditure and reach a wider population than government or commercial agencies, there is no guarantee that NGOs can reach the poorest of the poor. The Grameen Bank, for example, is more successful than big NGOs in Bangladesh that can only reach less than 20 percent of the poorest people (Edwards & Hulme, 1996).

The power imbalance in donor-NGO relations and inability of NGOs to live up to their promises may cause doubt among observers regarding their effectiveness as development agents, and may affect their credibility and legitimacy (Elbers & Arts, 2011). Despite problems regarding their relationship with donors, NGOs can manage donor demands and show strength, autonomy and ownership in development interventions (Elbers & Arts, 2011). Some studies show that instead of passively accepting their environmental pressures, organisations such as NGOs sometimes exercise strategies to respond to them (DiMaggio, 1988; Edelman, 1992; Elbers & Arts, 2011; Suchman, 1995); these are: avoiding, influencing, buffering and portraying. However, to be able to use these strategies, NGOs need alternative sources of funding, personal contacts and strong
performance records. Otherwise, NGOs do not have many options in dealing with adverse donor conditions. The strategies categorised by Elbers (2011) are described in Table 2.5.

**Table 2.5**: NGOs’ strategies to deal with adverse donor conditions

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Aim</th>
<th>Tactic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoiding</td>
<td>Prevent exposure to donor conditions</td>
<td>Selecting, Rejecting, Exiting</td>
<td>NGO limits contact to compatible donors. NGO turns down funding offers. NGO terminates funding relations.</td>
</tr>
<tr>
<td>Influencing</td>
<td>Change content of donor conditions</td>
<td>Negotiating, Persuading, Involving</td>
<td>NGO uses mutual dependence as leverage. NGO convinces using arguments. NGO personally engages donor representatives.</td>
</tr>
<tr>
<td>Buffering</td>
<td>Mitigate impact of unavoidable donor conditions</td>
<td>Shielding, Compensating</td>
<td>NGO insulates key parts from exposure. NGO offsets problems with discretionary funds.</td>
</tr>
<tr>
<td>Portraying</td>
<td>Pretend compliance with donor conditions</td>
<td>Window-dressing, Withholding, Misrepresenting</td>
<td>NGO conforms superficially. NGO selectively releases information. NGO forwards inaccurate information.</td>
</tr>
</tbody>
</table>

*Source: Elbers (2011).*

The expectations of NGOs as agents of service delivery and political reform (Robinson, 1993), their popularity among donors and policy makers (Lister, 2003), and the rise of some NGOs that challenge corporations, governments and other non-state actors to be more democratic, have raised questions regarding the extent to which NGOs can deliver meaningful development alternatives (Fisher, 1997). Specifically, some scholars and practitioners have questioned their legitimacy, accountability (Fisher, 1997; Fowler, 2000; Slim, 2002) and representativeness (Biekart, 1999; Nyamugasira, 1998).

Legitimacy is understood as “a generalised perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (Suchman, 1995, p. 574). Thus, legitimacy is related to how an organisation seeks and achieves external stakeholders’ acceptance of its existence so as to provide a right for the organisation to act for the good of society (DiMaggio & Powell, 1983; Ganesh, 2003; Scott, 1995; Suchman, 1995). A stakeholder is understood to be “any group or individual who can affect or is affected by the achievement of the organisation’s objectives” (Freeman, 1994, p. 46).
The legitimacy of NGOs can be both derived and generated. It is derived from morality and law. It is generated by veracity, tangible support and more intangible goodwill (Slim, 2002). Sources of NGOs’ legitimacy are summarised in Table 2.6.

**Table 2.6: Sources of NGOs’ legitimacy**

| Derived sources of legitimacy | • NGOs’ claim of their legality within international law and by their being law-abiding (supported by human rights law, international humanitarian law and refugee law).  
• The mission of NGOs to overcome human rights violations, to promote human equality, justice, dignity, impartiality and freedom (moral source of legitimacy). |
| Generated tangible sources of legitimacy | • Support from its members, supporters, media, academics, admirers and/or from the people whose rights the NGOs are trying to protect.  
• Relationships, knowledge, expertise and performance of NGOs. |
| Generated intangible sources of legitimacy | • Trust, integrity and reputation that rely on a well-established image and do not need factual evidence to influence people to have a good perception of NGOs as credible organisations. |

*Source: Developed from Slim (2002).*

Scott (1995) differentiated legitimacy into three types: regulative, normative and cognitive. Regulative legitimacy is achieved when an organisation acts in congruence with rules or regulations of a regulatory institution (Edwards, 1999; Maggio & Powell, 1983; Saxby, 1996; Scott, 1995). Normative legitimacy is derived from external stakeholders’ assessment of the extent to which organisations’ values and actions conform to society’s value system. Cognitive legitimacy is achieved when the public accepts organisations’ actions as socially comprehensible and ‘taken-for-granted’ (Suchman, 1995).

Therefore, NGO legitimacy depends on several elements, including accountability (Edwards & Hulme, 1995; Lister, 2003; Saxby, 1996), representativeness (Hudson, 2000; Lister, 2003; Pearce, 1997) and performance (Fowler, 1997; Lister, 2003; Pearce, 1997; Saxby, 1996) The concept of accountability is complex, abstract and debatable. Basically, accountability is how an organisation shows responsibility for justifying its actions (Edwards & Hulme, 1994; Ganesh, 2003; Gray, Dey, Owen, Evans, & Zadek, 1997) by reporting its performance transparently to be assessed by its various stakeholders (Tilt, 2006). According to Slim (2002), NGOs’ accountability requires more than reportage and includes three main aspects: reporting, involving and responding. In other words, proving the quality of their performance is not enough; NGOs must also be able to learn from and respond to the input of their stakeholders, then report back about their new action.
Moreover, NGO accountability is not only how an NGO justifies its performance but also its representativeness (Slim, 2002). Justifying or measuring NGOs’ performance is complicated work. Measuring the impact of NGOs’ actions that are related to qualitative change (outcomes), such as improved social welfare, is more difficult than measuring quantitative change (outputs) (Drucker, 1990). Besides, there is no single agreed ‘bottom line’ for measuring NGOs’ performance (Fowler, 1991). An NGO can prove its representativeness by claiming ‘from where they derive the power to speak’, i.e. whether they speak as, with, for, or about the poor or oppressed people; such organisations usually prefer this method instead of proving that they are democratically elected by the whole membership of a community (Slim, 2002).

Further problems for NGOs’ accountability are the lack of absolute standards or indicators for quality of organisational performance, and of satisfactory evaluative mechanisms (Edwards & Hulme, 1995). Those difficulties do not mean that NGOs should not be, or cannot be made, more accountable. However, complicated reporting obligations for NGOs may reduce the already limited funds available for providing their services (Tilt, 2006).

Studies of NGOs’ legitimacy usually focus on technical approaches, including accountability, performance and representativeness. However, these approaches often overshadow important related issues of legitimacy, such as legitimacy for whom, and for what end, as well as how it is created (Hudson, 2002; Lister, 2003). NGOs should deal with different types of legitimacy, including the regulative, normative and cognitive types (Lister, 2003) as well as dealing with competing requirements, demands and interests from various stakeholders (Hudson, 2002; Lister, 2003). For Northern NGOs (NNGOs), their stakeholders are donor organisations (even though Northern NGOs can act as donor organisations for Southern NGOs), the NNGOs’ supporters, their Southern NGO partners and their beneficiaries (Lister, 2003).

While NGOs can achieve regulative legitimacy through political, legal and administrative channels, they can seek normative and cognitive legitimacy by pursuing acceptability among their stakeholders (Ju & Tang, 2011). Since NGOs need to survive,
they usually prioritise seeking legitimacy from the support of their most important stakeholders (Pfeffer & Salancik, 1978) from which the NGOs expect to gain resources (Ganesh, 2003; Oliver, 1991); or else from support by dominant discourses about development (Grillo, 1997) instead of seeking their legitimacy from the support of every relevant stakeholders (Pfeffer & Salancik, 1978).

Consequently, in some cases NGOs prioritise justifying their actions to their donors based on donors’ requirements, such as number of beneficiaries, allocation of resources, and organisational growth (Feldman, 1997), rather than prioritising the needs of local beneficiaries (Ganesh, 2003; Henderson, 2002). In turn, the need to achieve legitimacy from donors can drive NGOs to focus on delivering short-term benefits rather than long-term participatory processes. These legitimising mechanisms can also involve NGOs in a patron-client relationship with in NGO networks (Herderson, 2002). Therefore, it is a challenge for NGOs to show the extent to which their actions meet and service local communities’ needs. This demonstration should include a prioritising of local participation over a hierarchical model of development, prioritising of process over product, and of indigenous over expert knowledge (Derman, 1995; Howes, 1997).
Chapter three

Farm forestry as a strategy for enhancing peasants’ livelihood: exploring the roles of NGOs in developing farm forestry in Indonesia

3.1 Introduction

Community forestry has much potential to address rural poverty and deforestation, as it aims to simultaneously achieve biodiversity conservation and community development (Charnley & Poe, 2007). In addition, it also has the potential to improve forest management, including the ecological condition of forests, and therefore increase wildlife habitat. It can improve local people’s access, use and/or benefits of the forests in terms of resources or revenue; as well as ensure access by different user groups. It can enhance forest governance, by means that include promoting transparency and accountability, thereby reducing illegal activities; and support general trends towards decentralisation and devolution. Moreover it can build community and individual skills (e.g. silviculture) (FCMC, 2013).

However, community forestry is not a magic wand and is not always as easy in practice as it appears on paper. While many communities enjoy positive impacts from community forestry (Poffenberger & Selin, 1998) others are less fortunate (Charnley & Poe, 2007). There are many challenges in the implementation of community forestry, due to institutional, socio-economic, or technical factors.

In relation to marketing, Butterfield, Hansen, Fletcher & Nikinmaa (2005) identified that insufficient market power, along with under-developed marketing expertise and knowledge, are significant barriers for small-scale forest enterprises/ SFEs to benefit from their timber enterprises. Insufficient market power is usually caused by external forces, such as domination by global companies; as well as by internal factors, such as low product quality, small harvest volumes, and poor economy of scale. When dominated by large corporations, global wood markets may reduce SFEs’ access to potential buyers.
Moreover, large-scale forest processors have a preference for buying standing timber from SFEs, which tends to increase the market power of the processors and reduce the market power of SFEs. In addition, SFEs usually only have the physical capacity to sell small volumes, so that it may be difficult for them to assemble more cost-effective volumes (e.g. a full truckload). Many SFEs find it difficult to produce products of similar species, sizes, and qualities due to natural variation within their forests (Butterfield et al., 2005).

SFEs can also be constrained by their under-developed marketing expertise and knowledge. Owners of SFEs often have to manage a diverse range of duties, including finance, marketing, logistics, client/customer relations, etc. Therefore, it is difficult for one person to have a high level of expertise in all aspects. These limitations are further compounded when forestry is just one enterprise of an SFE, due to its timber sales being only occasional (Butterfield et al., 2005).

One of the community forestry models practised in Indonesia is farm forestry, in which trees are planted on community or privately owned lands within an integral ecosystem (UUPK No.5/1967; Dep Hut/1993 cited in Awang et al., 2001). Afforestation in farm forestry is successful in rehabilitating critical lands due to, for example, the legal certainty available for private forestlands. Afforestation is the human-induced conversion of land that has not been forested for a period of at least 50 years to forested land through planting, seeding or the human-induced promotion of natural seed sources. By contrast, reforestation is the establishment of a forest in an area where there was forest during the last 50 years. The previous crop is either replaced by different species or by the same species. In this research, both sites have not been forested for more than 50 years (Bredemeier & Dohrenbusch, 2000). However, the success of farm forestry development cannot be shown only from its success in rehabilitating critical lands, but also in how it benefits peasants as tree growers (PERSAKI, 2010).

Despite the potential of small-scale farm forestry to both conserve forests and combat poverty, peasants as small-scale forest producers, especially poor households, still receive only a small portion of the commercial benefits. Therefore, peasants need support in developing forest enterprises and removing policy constraints (Scherr et al., 2002).
Among the efforts to enhance economic benefits for peasants from timber marketing is that of supporting them to achieve certification for sustainable forest management, known as forest certification. Forest certification offers several opportunities for peasants as owners of small-scale forest enterprises (SFEs) to benefit from their forest enterprises. Among these opportunities is access to new markets for certified timber in the broader market place, so they can derive higher profits from the price premium for their certified products (Guillen, 2000; Irvine, 1999; Marijinissen, 1998; Markopoulos, 2003). Due to financial, technical and administrative obstacles for SFEs in developing countries in gaining forest certification, its impact has been felt more by large-scale industrial and state-owned temperate and boreal forests in developed countries, than by small-scale individual and community-owned tropical forests in developing countries (Nussbaum & Simula, 2004).

To address these limitations, forest certification organisations and NGOs have made many efforts to simplify forest certification procedures, and have provided financial and technical assistance for SFEs in developing countries to pursue forest certification. However, even though they have received forest certification, it is still difficult for SFEs to benefit from it. SFEs usually struggle to meet global market demand because not all of them focus only on their timber business, so that they usually provide an inconsistent supply of small quantities (less than a truckload), which include a mixture of species, sizes and qualities of timber (Butterfield, Hansen, Fletcher, & Nikinmaa, 2004).

This chapter illustrates the potential and challenges of community forestry in addressing poverty and deforestation, as well as supplying timber demand. Positive and negative aspects of farm forestry are also presented. Then this chapter discusses peasants’ agroforestry practices, and efforts to support them as owners of SFEs to develop their timber business and benefit from it. Forest certification that is used as a tool to benefit SFEs is also described, including their limitations in pursuing forest certification, possible efforts by NGOs to address these limitations, and obstacle for SFEs in benefiting from forest certification.
3.2 Community involvement in forestry development

The dependency of one-quarter of the world’s poor population, especially that of developing countries, on forests in part or in full for subsistence shows that forests cannot be separated from people (Arnold, 2001; Levang, Dounias, & Sitorus, 2005; Scherr, White, & Kaimowitz, 2004; Vira & Kontoleon, 2010). Therefore, the sustainability of forests has a direct impact on the future of the world’s poorest people (Scherr et al., 2004). Despite evidence from several parts of the world that the people can manage forests as well as, or better than, governments, their rights to utilise forests and potential to maintain forest sustainability have been undermined by many policies that prioritise industrial-scale timber companies (Awang, 2003; Mahanty & Guernier, 2008; Scherr et al., 2004), and isolate forests from the people for conservation purposes (Scherr et al., 2004).

3.2.1 Community forestry: an effective strategy for addressing poverty, deforestation, and timber shortages?

Poverty can be simply defined as an inability to fulfil basic needs or minimum standards of living (Olsson & Knudsen, 2004; Perry, 2002; Zohir, Rabbani, Mallik, Huq, & Afsana, 2008). However, poverty is not a simple notion (Bhumibhamon, 2005; Mahanty, Gronow, Nurse, & Malla, 2006; Rositah, 2006). As a lack of capability (Sen, 2000), poverty can cover several kinds of deprivation (e.g. material, intellectual, health, social, political, and risk deprivation). Thus, people can be categorised as poor if: they lack assets or opportunity to access education and health support; experience social exclusion or discrimination; do not have the power to make their voice heard in decision making that influences their lives; or are not able to cope with risks to their lives (Singh, 2005).

There are various measurements for poverty. The World Bank classifies people as poor if they live on less than US$1 per day (World Bank, 2015); while the United Nations Development Program’s Human Development Index (HDI) and Human Poverty Index also measure poverty, based on life expectancy at birth, knowledge, and income sufficiency (Bhumibhamon, 2005; Peet & Hartwick, 2009). Using those measurements, from a global population of 6.4 billion, the ‘World Bank’s result 2013’ reported that more than 1.2 billion people still live in extreme poverty, and an additional 2.7 billion live on US$1.25–4.00 a day. Based on the HDI, 31 countries received the lowest HDI rating in 2007-2008,
29 of which are located in Africa (e.g. Sierra Leone, Burkina Faso, Guinea-Bissau, and Niger); the others are Haiti and Yemen (Peet & Hartwick, 2009). In Indonesia, 10.2 million of the 48.8 million people who are living on state forestland are considered to be poor (Wollenberg, Belcher, Sheil, Dewi, & Moeliono, 2004).

The linkage between forests and poverty alleviation is clarified by Sunderlin and Thu Ba (2005), who identified the importance of forestry as a way not only to mitigate but also to avoid and eliminate poverty. Poverty mitigation is an effort to reduce poverty by helping the poor become less poor. Forests are also important for poverty avoidance by preventing people who are on the poverty line from falling below it. For poverty elimination, forests can be utilised to help people temporarily or permanently out of their poverty. For poverty mitigation and poverty avoidance, forests are used more to fulfil subsistence needs, as a seasonal gap filler, and as a safety net during emergencies. For poverty elimination, forests are essential as sources of savings, asset building and investment (Sunderlin & Thu Ba, 2005). In view of the importance of forests for forest dependent people, community forestry program has become a key strategy to alleviate poverty (Mahanty & Guernier, 2008; Mahanty et al., 2006; Pulhin, 2000).

Similar to the opinion of Sunderlin and Thu Ba (2005) about the role of forests in poverty alleviation is that of Angelsen and Wunder (2003), who identified the importance of forests for poverty prevention and poverty reduction. Forests are a potential means of poverty prevention if they can be utilised as safety nets, including for maintaining a minimum standard of living, fulfilling subsistence needs, filling seasonal gaps, and supporting basic needs during emergencies (Angelsen & Wunder, 2003). Poverty reduction includes poverty mitigation and poverty elimination (Mahanty et al., 2006). Forests can be used for poverty reduction through developing forest-based enterprises (e.g. harvesting, processing and selling both timber and non-timber forest products) (Angelsen & Wunder, 2003).

In Indonesia, PERHUTANI or the State Forestry Corporation (SFC) implemented the Java Social Forestry program in the late-1980s and early-1990s. It obligated local people to maintain tree seedlings and allowed them to plant agricultural crops between the
trees until the tree canopy was closed. While the program was effective in reducing poverty and illegal logging, it failed to eliminate poverty (Sunderlin, 2004).

Identifying underlying causes of poverty and conducting poverty alleviation are not simple tasks. For those forest dependent people who depend heavily on forest resources for their daily needs (Levang et al., 2005; Warner, 2007), government policies that discriminate against, do not recognise, or limit their rights to access forest can cause and maintain poverty (Awang, 2003; Hobley, 2007; Peluso, 1994; Ribot, 1995; Rositah, 2006; Tauli-Corpuz, 2005). For example, in Indonesia during the New Order/Suharto era, forest dependent people became impoverished because government regulations prioritised massive amounts of timber extraction by forest industries, while excluding forest dependent people from utilising forest resources (Awang, 2003; Kaimowitz, 2003). This problem has been worsened by insufficient forest resources due to natural disasters, access competition among local inhabitants (Sunderlin, 2004), and equity problems (Sunderlin & Thu Ba, 2005); as well as forest resource degradation caused by migrant people, illegal squatters and the massive industrial timber extraction (Dove, 1993; Rositah, 2006). Therefore, guaranteeing local people’s access to forests and involving them in forest rehabilitation and maintaining forest sustainability, can help them to sustain their livelihood (Arnold, 2001; Wollenberg et al., 2004; Levang et al., 2005; Sunderlin & Thu Ba, 2005).

Another cause of poverty and challenge for poverty alleviation among forest dependent people is limited access to the market (Scherr et al., 2003; Wollenberg et al., 2004), due partly to poor infrastructure that connects them to markets (Pandit, Albano, & Kumar, 2008). Other causes of poverty and challenges for poverty alleviation are lack of financial and human capital to build and maintain a business, and lack of market infrastructure to support business (Pandit et al., 2008).

Deforestation or the long-term process of reducing forest cover (Angelsen & Kaimowitz, 1999) has been a problem both in developing and developed countries (Allen & Barnes, 1985). Even though the deforestation rate has been reduced recently due to plantation activities, it is estimated that from the 4 billion hectares of forest remaining
globally, the rate of forest clearance reached about 5.2 million hectares per year during the period 2000-2010 (FAO, 2010).

Results from many studies show that deforestation is caused by complex and sometimes interrelated or overlapping factors (Dauvergne, 1994; Geist & Lambin, 2001; McCarthy, 2006; Peluso, 1992) including economic, institutional, demographic, technological (Geist & Lambin, 2001, 2002) and socio-political factors (Dauvergne, 1994; Geist & Lambin, 2001, 2002). Among the causes of deforestation are both small-scale agriculture and industrial-scale timber extraction. Poor families who practise small-scale agriculture for their daily consumption needs have been accused of being a cause of the conversion of forested land to agricultural land (Angelsen & Kaimowitz, 2001; Brown, 1998; Geist & Lambin, 2001, 2002). In addition, agricultural inventions such as seeds, fertiliser, pesticide and agricultural machines have supported this type of forest area conversion (Geist & Lambin, 2001, 2002; Angelsen & Kaimowitz, 2001). The deforestation process is worsened by population growth and the resulting rise in food demand (e.g. for rice, maize, and vegetables) (Barlow, Jayasuriya & Tan, 1994). The increased demand for and price of timber has also attracted people to extract timber from forests on a massive scale (Geist & Lambin, 2002).

Human migration to forested areas can also put more pressure on the forest, whether it is illegal or legally supported by government policies (Angelsen & Kaimowitz, 1999; Dauvergne, 1994; Fearnside, 1997). In Indonesia, illegal human migration is the result of illegal spontaneous transmigration and local migration of ‘estranged and isolated’ people. Illegal spontaneous transmigration is the movement of people from Java to the outer Islands by their own initiative, who do not follow the procedures of the government settlement program (McAndrews, 1978; O’Connor, 2004). ‘Estranged and isolated’ people are those that regularly move from one place to another. Since the ‘estranged and isolated’ people practise shifting cultivation for supporting themselves by clearing the forest, they are often accused of causing deforestation (de Jong, Noordwijk, Sirait, Liswanti & Suyanto, 2001; Dove, 1985; Li, 2000).

In Indonesia, legal human migration was supported by government policy through the transmigration program during the New Order regime, to balance population.
distribution and natural resource utilisation, as well as improve the livelihood of the people (Hoppe & Faust, 2004). The transmigration program has led to forest conversion for housing, agriculture and estate crop plantation (e.g. cacao, palm oil) (Carr, 2004; Deacon, 1994; Potter, 2004; Ruf, 2001; Sunderlin & Resosudarmo, 1999). Crop plantations (e.g. rubber and palm oil) in transmigration areas have led to more deforestation (Whitten, 1987). Implementation of decentralisation has also encouraged district governments to convert more forestland for crop plantation, especially palm oil plantation, to earn a higher regional income (Nawir & ComForLink, 2007).

The use of forests for agriculture and estate crop plantation is supported by people’s assumption that they are open access areas (Purnamasari, 2009; Ruf, 2001) with unclear or unsecured property rights (Angelsen & Kaimowitz, 1999; Geist & Lambin, 2002). The migration pressure on forests has been worsened by the implementation of development projects (e.g. the nucleus estate settlement and industrial forest plantation/HTI project) that were responsible for clearing 250,000 hectares of forest in Indonesia per year from 1980 to 1986 (Fearnside, 1997). Other interrelated causes of deforestation are corruption and mismanagement of forestry (Duevergne, 1994; Geist & Lambin, 2002).

To overcome deforestation, top-down conservation initiatives have been conducted. However these top-down programs that exclude people from forests have been ineffective in conserving the degraded forest areas (Agrawal & Gibson, 1999) and have worsened the poverty of people who are dependent on and live in, or adjacent to, forests (Bachriadi & Sardjono, 2005). Moreover, some studies show successful sustainable forest management by customary people, for example those located in the Krui, Lampung (Kusters, de Foresta, Ekadinata, & Noordwijk, 2007) and in Randublatung, Java (Susilowati & Esariti, 2007).

Ineffective top-down conservation and the success of community initiated conservation have driven policy makers to implement community-based conservation that gives authority to local communities to manage or regulate forest resource use (Agrawal & Gibson, 1999; Berkes, 2005). To support community involvement in maintaining the sustainability of forests, governments should take into account local knowledge and those local rights that have been given limited recognition in government policy (Agrawal & Gibson, 1999; Berkes, 2005).
Alarming rates of deforestation have increased the role of plantation forests in supplying the world’s industrial timber demand. Until 2005, these forests supplied about one-quarter of the demand (Charnley, 2006). To fulfil timber demand, plantation areas have increased about 118 million hectares in the period 1990-2000 from the previous decade (FAO, 2001b). Recent demand for Indonesian timber is about 58 million cubic metres per year, of which about 22 million cubic metres are supplied from legal logging of natural forests, while about 20 million cubic metres come from illegal logging (Barr, 2007).

To fill the gap and to minimise illegal timber supplies, the Ministry of Forestry at the end of 2006 budgeted about US$8.0 billion, and targeted 9 million hectares for plantation by 2016. Moreover, 3.6 million hectares of the plantation areas are reserved for large-scale plantation and the remainder is for peasants (Barr, 2007; Schneck, 2009). Based on previous experiences, reaching this target will not be simple due to: first, continuous land conflicts between licence holders under the industrial forest plantation (Hutan Tanaman Industri/HTI) program and local people (Barr, 2007; Nawir & Santoso, 2005; Schneck, 2009); and second, growing interest in palm oil plantation among industries and local people who perceive it as more profitable than timber plantation (Schneck, 2009).

### 3.2.2 Challenges of community forestry

For almost four decades, community forestry programs have been delivering success as well as failure stories. While many communities achieve positive results from community forestry, such as Native American and Quebecer communities who have legal rights to control forests (Poffenberger & Selin, 1998), other communities have experienced less success. Community forestry has not always delivered significantly better livelihoods for the people involved or better forests. Indeed, it has been identified as a mechanism for preserving state control over people, and providing cheap labor to restore forests (Charnley & Poe, 2007).

There are many possible challenges to be solved, such as institutional, socio-economic, and technical problems in order for community forestry to be an effective way to maintain the sustainability of forests and enhance the prosperity of the people –
especially those who depend on forest products and services to support their livelihoods. Several of these challenges are illustrated in Table 3.1.

**Table 3.1: Challenges of community forestry (global context)**

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<tr>
<th>Institutional Challenges</th>
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<tr>
<td>• Inconsistent and unclear national forestry policies that are difficult to implement at the local level.</td>
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<tr>
<td>• Limited government recognition of diverse local practices of community forestry (Workshop about Forest and Community, held in Yogyakarta, Indonesia, 2006).</td>
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<th>Policy Challenges</th>
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<tr>
<td>• State-centric paradigms in forestry policy that undermine local people’s rights, values, knowledge and capacity in forest management (Moniaga, 1997).</td>
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<tr>
<td>• Inability of forestry policy to provide tenure and access security for forest dependent people and small-scale forest producers (Lindsay, 1998; Safitri, 2006).</td>
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<tr>
<td>• Excessive and contradictory regulation that burdens and discriminates against small-scale forest producers.</td>
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<tr>
<td>• No (or limited) involvement of local or small-scale forest producers in forest policy negotiation (Scherr et al., 2003).</td>
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<tr>
<th>Unintended Results of Decentralisation</th>
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<tr>
<td>• Unwillingness or reluctance of personnel of the central government to delegate power and resources to local authorities (Conyers, 1983).</td>
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<tr>
<td>• Hidden intentions and goals of decentralisation (e.g. to reduce costs, to increase forestry department revenues and/or to increase control over local people) (Conyers, 1983).</td>
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<tr>
<td>• Insufficient capacity and institutions at community level to make decisions and solve the conflicts among local people (Agrawal &amp; Gibson, 1999; Klooster, 1999).</td>
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<tr>
<td>• Overlapping claims of rights over resources between local governments and local users (Agrawal &amp; Ostrom, 2001; Larson &amp; Soto, 2008).</td>
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<tr>
<th>Social Challenges</th>
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<tr>
<td>• A community might be unstable; its members may have conflicting views and might have differences in terms of socio-economic status, interests, and values.</td>
<td></td>
</tr>
<tr>
<td>• Social inequity within the community due to domination by internal elite (Agrawal &amp; Ostrom, 2001; Larson &amp; Soto, 2008).</td>
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</table>

**3.2.3 The farm forestry model in Indonesia**

One of the community forestry models found in Indonesia is farm forestry. Practised with different names and variants by several communities since the colonial era (in the 1930’s), farm forestry was recognised by Forestry Regulation No. 5/1967 (Undang-undang Pokok Kehutanan No. 5/1967) as private forest that consists of trees planted on community or individually owned lands. Then, in 1993, the Ministry of Forestry defined farm forestry as lands outside of state forest that are predominantly planted with trees, so as to form an integral ecosystem (Departemen Kehutanan/1993, in Awang et al., 2001).
In its definition of farm forestry, the Ministry of Forestry (MoF) tried to distinguish between state forest and farm forestry based only on land ownership status. The MoF neglected to mention who should manage farm forestry, because it is possible that a corporation or government, instead of the local community, manages the forest on the private lands. It would be better to define farm forestry as forests that are maintained by communities on private, communal and/or state lands (Awang et al., 2001).

Practised on Java Island, Indonesia, since the 1950’s the ‘Karangkitri’ program is one example of a farm forestry program. The ‘Karangkitri’ program is the government’s tree plantation program applied to the home-gardens of privately-owned lands. The program was initiated by the government to rehabilitate critical areas and to fulfil communities’ need of timber. While it cannot be identified as a successful program, it has been the embryo of community initiatives in tree plantation (Simon, 1999).

In the 1960s, the government initiated multiple purpose forest programs in Java Island by planting multi-purpose tree species (MPTS) and, after the 1960s, the government developed farm forestry by initiating many other prosperity enhancing programs (e.g. the MALU program in the 1970s and PMDH in the 1980s) (Simon, 1999). Since then, government-initiated farm forestry development has taken the form of afforestation programs on private lands (e.g. the Land and Forest Rehabilitation program, the One Man One Tree program). The President’s Instruction No. 8/1978 stated that an afforestation program is a plantation of perennial plants and grasses, including building infrastructure, in the plantation sites outside state forest or agriculture areas. The aims of afforestation are: first, to protect and rehabilitate critical lands so as to avoid soil dehydration, erosion and flooding; and second, to enhance livelihoods of tree growers using the forest resources.

The initiative to create and develop successful farm forestry not only comes from government but also from the local community. Farm forestry has been practised by local communities in many areas under different names. In Java, local people have planted their home-gardens (pekarangan) and fields (tegal) with mixed plantations of trees, multi-purpose tree species, and food crops to fulfil their daily consumption needs and to raise cash (Simon, 1999). In some areas, for example in Selopuro Village (and other villages in Wonogiri District) the tree plantation initiative came from local people (Awang et al.,
In government-led farm forestry programs, the owners of the lands also make an important contribution in maintaining the plants, since not all afforestation programs initiated by the government are concerned with plantation maintenance and monitoring (Awang et al., 2001).

In the last decade, farm forestry areas have been increasing significantly especially in Java. The government claimed that this was a result of the success of its program in rehabilitating critical and unproductive private lands (PERSAKI, 2010). Based on data from RLPS, MoF 2009, total farm forestry areas in Indonesia cover about 3 million hectares or about 2.62 percent of the total forest area in Indonesia which comprises 130 million hectares. About 2 million hectares (or 77.8 percent) of the total farm forestry areas of Indonesia are situated in Java. The government still needs to develop farm forestry through rehabilitation programs in critical lands that cover about 10 million hectares (PERSAKI, 2010).

Based on data from the Land Rehabilitation and Social Forestry unit (Rehabilitasi Lahan dan Perhutanan Social, 2009), farm forestry areas in Indonesia have a total standing timber stock of about 125 million cubic metres of timber, of which about 21 million cubic metres are ready to be harvested. Of the national timber production target, farm forestry has the potential to contribute about 7.5 percent. The data from Land Rehabilitation and Social Forestry indicates the potential of farm forestry to rehabilitate critical land and contribute to timber supply. However, the success of farm forestry development cannot only be demonstrated on these grounds. The extent to which it can benefit and enhance the livelihoods of peasants who grow trees, and their local communities, is an important aspect of its success (PERSAKI, 2010).

3.3 Understanding peasants

Peasants in each part of the world have unique value systems, perspectives, considerations, livelihood strategies, social structures and forms of social organisation. Many initiatives to improve their livelihood have failed to bring about the initiators’ intended changes because they were based on general knowledge, instead of on specific local knowledge of the peasants’ living condition. Besides, it is possible that peasants in some areas have less
intention of embracing change (Abar, 2002). Therefore, an understanding of peasants is unavoidable for any initiatives related to rural development, such as farm forestry.

The term peasant can be understood as aggregate of occupation, community, class, social category, livelihood style, and/or as a step of community change in social evolution. Therefore, characteristics of peasants can be defined from occupational and relational perspectives (Subkhan, 2006).

As an occupation, the basic characteristic of peasants is as an agriculturalist (i.e., they work in the farming sector). The *Oxford Advanced Learner’s Dictionary* defines peasant simply as “a countryman working on the land” and “a member of the class of farm labourers and small farmers”. Thus, peasants are different from farmers in developed countries who also work in the agriculture sector (Abar, 2002; Subkhan, 2006). Farmers are agricultural entrepreneurs whose primary products are agricultural. As such, farmers usually have larger-scale production methods and are more focused on markets in order to gain maximum profits, rather than on fulfilling subsistent needs (Mosher, 1966); whereas peasants cultivate lands and keep livestock mainly to fulfil their subsistence needs (Scott, 1983).

Moreover, Firth (1946) defined peasants as “... communities of producers on a small scale, with simple equipment and market organisation, often relying on what they produce for their subsistence” (Firth, 1946, p. 22). Even though after fulfilling their daily consumption they may still have a product surplus to sell, the cash income from selling these products is used to fulfil their basic needs (Scott, 1983).

From a relational point of view, the definition of peasants is more about to whom peasants deliver their products than what they produce. Living in rural areas, peasants play important roles in providing food for people in urban areas (Subkhan, 2006). Using the relational view, Redfield (1955) defined peasants as communities living in villages/ rural areas whose existence cannot be separated from cities, and who have a relationship with people in cities/urban areas. Wolf (1957) preferred to understand peasants as communities that have a structural relationship with, and are integrated into, the state rather than cities/ urban areas.
The characteristics of peasants, according to Wolf (1957), are: they are mostly involved in agriculture production, have effective control of their lands and are subsistence oriented. Another characteristic of peasants is cultivating lands that are a basic unit of a multi-dimensional family organisation, and are valued as the main livelihood source for their consumption needs. Peasants as small communities have their own culture that influences their livelihood and are often disempowered and socially, politically and economically controlled by external people (Shanin, 1988). To enhance their power and protect their needs, peasants usually build patron-client relationships with richer, more powerful or elite people. These individuals act as patrons who can mediate for peasants with more powerful people in the broader community (Foster, 1967).

3.3.1 Approaches to analysing economic behaviour of peasants

In economic anthropology studies, there are four approaches to analysing the economic behaviour of peasants. They are: substantives, formalism, new economic anthropology and personalism (Subkhan, 2006). The substantives approach (e.g. Karl Polanyi, Bronislaw Malinowski) considers that as part of social regulation and organisation, economic activities are efforts to fulfil livelihood needs in relation to broader natural and social entities. Thus, the economic activities do not always stem from economic motives, but can be prompted more by the actor's tradition, culture, social obligations and beliefs. This approach emphasise culture and social organisation rather than individual autonomy as motivation for the economic behaviour of a community (Subkhan, 2006).

Opposing the substantive approach, formalism emphasises individual autonomy as the driver of economic activities (Subkhan, 2006). The formalist approach perceives that people in both primitive and modern communities, using their rationality, will carry out economic activities that are based on calculations of possible risk and profit (Firth, 1946), as well as on maximising satisfaction (Herkovits, 1968). New economic anthropology critiques both the substantive and formalist approaches (Subkhan, 2005). Although it has many variants (e.g. cultural materialism, structural Marxism, and neo-Marxism), new economic anthropology considers that, based on minimum risk and maximum profit considerations, humans have the autonomy to decide their actions; however, not all
communities use individual autonomy and risk-profit considerations as the grounds for their actions (Haris, 1966).

Differing from the above approaches that are more focused on community and social structure, personalism is more concerned with analysis of person-to-person relationships in economic systems. Economic personalism also has many variants such as:

1. Personal economy (William G. Davis in ‘Social Relations in a Philippine Market’, 1973);
2. Moral economics (James Scott in ‘The Moral Economy of the Peasants’, 1973);
3. Political/rational economy (Samuel L. Popkin in ‘The Rational Peasant’, 1979); and

3.3.2 Moral and rational economies of peasants

Among these approaches and their variants that analyse the economic behaviour of peasants, Scott’s moral economy and Popkin’s rational economy are the most used and debated. Based on his research of peasants in Southeast Asia, Scott (1976, 1983) perceived that economic behaviour of peasants is motivated by subsistence morality that prioritises safety (safety first) in their economic activities, including their agriculture. If peasants invest their money, they do it to secure their subsistence livelihood, instead of gaining as much profit as possible and they will only invest it if there is minimum risk. Criticising Scott’s moral economy, Popkin (1979, 1986) argued, based on his research of peasants in Vietnam, that instead of being motivated by subsistence considerations, peasants are very rational in their economic activities and take any opportunities they can to maximise profits.

According to Wolf (1983), peasants always face dilemmatic problems in trying to balance accommodating external pressures and satisfying their families’ needs. To solve these problems, peasants can use contradictory strategies of maximising production or minimising consumption. If peasants use their power of rational choice by opting to maximise production, they must increase production factors (e.g. labour, capital, land use), inputs (e.g. seeds, fertiliser, pesticide), and their knowledge of the market. If they exercise their moral choice by minimising their consumption, they must limit calorie intake, only
buy basic goods, and only consume foods that are produced from their lands. However, they would still need to allocate money and/ or goods for social obligations to maintain social relationships with other peasants. The strategy of maintaining social relationships by providing money and/ or goods is also called ‘shared poverty’ by Geertz (1963, 1983), as found in peasant culture in Java Island, Indonesia. The differences between moral economy and rational economy are described in Table 3.2.

Rational choice (maximising production) and moral choice (minimising consumption) are not mutually exclusive for peasants, who are always in a dynamic position between these two poles in solving their problems (Wolf, 1983). Besides, whatever their choice, peasants are rational human beings who choose their strategy for reasons of both survival and financial gain. Popkin’s argument about peasants who make moral choices as irrational beings is not always relevant since peasants who prioritise safety, prefer to use local knowledge, are contra-market, and contra-commercialisation are also rational peasants (Abar, 2002).

Table 3.2: Comparing the moral economy and rational economy of peasants

<table>
<thead>
<tr>
<th></th>
<th>Moral economy</th>
<th>Rational economy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic assumption</td>
<td>Peasants always face subsistence crisis regarding their limited ability to fulfil their basic needs such as food.</td>
<td>Peasants are individuals who have autonomy to decide rationally in their actions to take any opportunities that arise.</td>
</tr>
<tr>
<td>Life principle</td>
<td>Peasants always prioritise safety (safety first) over taking risk to pursue maximum profits.</td>
<td>Peasants are rational human beings who prioritise profits in their productive activities.</td>
</tr>
<tr>
<td>Social organisation</td>
<td>Villages have a collective social function where peasants as individuals share their limitations and their social surplus to secure their well-being.</td>
<td>Villages are places of economic complexity where peasants as individuals invest, produce, consume, and make transactions to pursue their rational goals.</td>
</tr>
<tr>
<td>Patron-clients relationship</td>
<td>Patron-client relationship as a subsistence mechanism to secure subsistence needs of clients. In return clients will give some of their surplus to their patron regularly.</td>
<td>Patrons in patron-client relationships are seen as free riders who gain the most benefit without any contributions in providing goods.</td>
</tr>
<tr>
<td>Source of crisis</td>
<td>Subsistence crises are caused by natural disasters, colonialism, market intervention, and government policies that prioritise economic growth.</td>
<td>Sources of peasants’ crises are state monopoly, contra-market/technology/innovation conservative mentality that opposes change and modernisation.</td>
</tr>
<tr>
<td>Agricultural technology</td>
<td>Peasants more prioritise local knowledge than new technology in their agriculture activities.</td>
<td>Peasants with their rationality will adopt new technology if it is effective to boost agricultural production.</td>
</tr>
</tbody>
</table>
Changes

Peasants will take any opportunities to change if they can avoid a subsistence crisis. To adopt any innovations, peasants use minimum risk consideration rather than possible high profits from the innovations adoption.

Peasants need to make some changes to develop their livelihood. Their adoption of innovations is more based on considerations of possible high profits rather than possible risk.

Source: Adapted from Wolf (1983) and Abar (2002).

3.3.3 Peasants in Indonesia

Among studies of peasants in Indonesia, there are two well-known analyses of the economic behaviour of peasants. The first is *Agricultural Involution: The Processes of Ecological Change in Indonesia* by Clifford Geertz, that analyses peasants in lowland areas (Geertz, 1963); and the second is *The Political Economy of Mountain Java: An Interpretative History* by Robert W. Hefner that analyses peasants in highland areas (Hefner, 1990).

In his book *Agricultural Involution*, Geertz (1963) tried to describe wetland peasantry in Java and the impact of social, economical and demographic changes on the peasantry from the colonial era to the beginning of Indonesian independence. The study was based on curiosity about how Java, Bali and Lombok Islands whose combined area constitutes only 9 percent of Indonesia can support their population that is 65 percent of the population of Indonesia. The aim of Geertz’s study was to investigate how peasants in Java dealt with the rapid growth of human population in the island, and how to support the people’s livelihoods on the overpopulated island with overcrowded space and limited wetlands (Geertz, 1963)

Using a cultural ecology as well as a substantives approach, Geertz (1963) explained that ecology, demographics, social organisation, and cultural conditions are factors that influence peasants’ behaviour in Java. Population pressure had forced peasants to enhance their agricultural productivity. Even though they had increased their productivity however, their output became less for each person due to population growth being faster than productivity growth. As a result agriculture only marked time rather than moving forward, the process that Geertz called agricultural involution. The agricultural involution was worsened by the failure to develop an industrial sector in urban areas, so that the weak industrial sector could not absorb labourers from rural areas. To fulfil their
subsistence needs, the peasants intensified their agriculture by involving as many labourers as possible to share agricultural output until the benefit people received became less and less, a process that is called *Shared Poverty*. Through sharing poverty, the peasants could still survive; and also sustain their social cohesion and social equity in facing the population pressures and limited natural resources.

Based on his research into peasants in the Tengger Mountains, East Java, Hefner (1990) explained how peasants in Southeast Asia have dealt with political and economic changes from the pre-colonial to the New Order era. Hefner used both Scott’s moral economy and Popkin’s political/rational economy approaches in his analysis. According to Hefner (1990), economic behaviour of peasants in Tengger is not only controlled by the community’s cultural dynamic (e.g. norms, values, morals, perspectives), but also by their rational thinking that allows them to take opportunities to improve their lives by embracing market involvement and government policies.

Hefner (1990) argued that peasants in Tengger are rational peasants since to increase agricultural productivity they had implemented modern agriculture (used new types of seeds, chemical fertilizer, and pesticide) before the Indonesian government implemented its ‘green revolution’. Most peasants in Tengger have their own land, so the phenomenon of ‘shared poverty’ did not occur there. As rational peasants, they still used community norms and values as considerations in their behaviour. For instance, rich peasants were ashamed to show up their wealth to other peasants. In Tengger community, there are not only local values, but also market influence and government initiatives that bring about changes in their economic behaviour.

### 3.4 Benefits for peasants from agroforestry

In Indonesia, small-scale farm forestry on private and/ or community-owned land has been in existence since the 1970s. Compared to industrial plantation forestry practised by concessionaires in state forests, which also involves peasants, small-scale farm forestry is more successful in delivering environmental and socio-economic benefits to peasants who grow trees (Nawir & ComForLink, 2007). Farm forestry covers about 43 percent of the total forest plantation area of Indonesia, in which about 3.43 million households manage
about 4.2 million hectares (FAO, 2001a; Ministry of Forestry, Indonesia, 1998). These forest plantations not only support the daily needs of peasants as small-scale forest producers (e.g. fuel timber, fodder, and timber for building) and improve ecological conditions (Nawir & ComForLink, 2007), but also potentially improve economic growth and reduce poverty, as long as peasants have access to commercial timber markets (Scherr, 2004; Scherr et al., 2002; Scherr, White, & Kaimowitz, 2004).

3.4.1 Trees used on farms by peasants

In farm forestry, the people practise agroforestry in which trees are grown as part of an integral ecosystem with other crops and livestock (Nair, 2007; Nair, Gordon, & Mosquera-Losada, 2008; Raedeke, Green, Hodge, & Valdivia, 2005; Valdivia, Barbieri, & Gold, 2012; Young, 1988). Agroforestry can be defined as a “collective name for land use systems in which trees are grown in association with crops and/ or pasture and livestock, either in a spatial arrangement or a time sequence, and in which there is both an economic and ecological interaction between the trees and other components of the system”; here ‘trees’ are “wood perennials, including trees, shrubs and bamboos” (Young, 1988, p. 19).

In agroforestry practices, there are economic and ecological interactions between tree and non-tree components. The economic interaction is the usage of both to fulfil subsistence needs, and to obtain cash; whereas ecological interactions consist of planting a tree to create intended effects from trees for non-tree components and the ecology (Kang & Akinnifesi, 2000; Nair, Kumar, & Nair, 2009; Raedeke et al., 2005; Valdivia et al., 2012; Young, 1988). Thus, agroforestry is not the same as large-scale commercial forestry. The intended outputs of commercial forestry are timber and non-timber products, while those of agroforestry are not only timber (e.g. fuel timber, timber, poles) and non-timber products (e.g. oils, gums, waxes, latex, medicine), but typically also fodder for livestock, food, and tree services (e.g. shade/canopy, shelter, fencing, soil conservation) (Pramova, Locatelli, Djoudi, & Somorin, 2012; Valdivia et al., 2012; Young, 1988).

Over 90 percent of agroforestry is conducted by peasants on their agricultural land/farmland (Young, 1988). Related to this fact, there are two contradictory assumptions. The first is that agroforestry is not always applicable to poor peasants with low rice self-
sufficiency, even though it offers an opportunity for boosting agricultural production while improving environmental sustainability (Steppler & Nair, 1987). They are more likely to plant annual monocrops to fulfil their need of food rather than trees that are slow-maturing and have a long crop cycle (Belsky, 1993). This would be the case even though intensification of annual cropping may decrease soil productivity (Bernstein, 1981). Moreover, agroforestry practice requires secure land tenure which is sometimes unachievable for poor peasants (Belsky, 1993).

The second assumption is that agroforestry will support peasants who have difficulty reaching food self-sufficiency from their agricultural production, as by practising agroforestry they can derive income from various sources that can guarantee their food security (e.g. income from timber and non-timber products as well as food crops and livestock) (Arnold, 1987; Belsky, 1993; FAO, 1989a, 1989b; Kang & Akinnifesi, 2000; Nair, 2007; Pramova et al., 2012; Young, 1988). To meet their various needs, peasants usually plant multi-purpose, fast growing and nitrogen fixing trees (e.g. Acacia albida, Cassia siamea, Casuarina equisetifolia and Cocos nucifera). Moreover, based on their conditions and experience, peasants can decide how many and what kind of trees will be planted on their farmland (Young, 1988).

Some studies in Southeast Asia have shown that both assumptions are relevant. They demonstrated, for example, that in some regions of Indonesia and the Philippines, peasants with limited resources and low rice self-sufficiency/low RSS from agriculture decide to plant trees to support their food self-sufficiency (Belsky, 1984); whereas in some other regions of those countries, poor peasants with limited land access and low rice self-sufficiency/low RSS prefer to plant food crops rather than trees (Belsky, 1984; Wiersum, 1982; Wollenberg, 1985).

Therefore, the level of motivation among peasants to plant trees on their farmland varies. Some reasons for peasants to practise agroforestry include:

1. Agroforestry requires lower inputs and provides more benefits than simply planting annual monocrops (Belsky, 1993; FAO, 1989a; Valdivia et al., 2012; Young, 1988);
2. Combining trees, food crops, pastures and livestock in agroforestry can reduce dependency on any one source of income (Arnold, 1987; Belsky, 1993; FAO, 1989a, 1989b; Nair, 2007; Young, 1988);

3. Agroforestry has the potential to meet multiple needs of peasants or to solve peasants’ problems that are related to shortage of food (Arnold, 1987; Belsky, 1993; FAO, 1989a, 1989b; Kang & Akinnifesi, 2000; Nair, 2007; Pramova et al., 2012; Young, 1988), shortage of fodder, water, energy, shelter, raw materials, cash, savings, and materials for fulfilling social obligations (Pramova et al., 2012; Scherr et al., 2002; Young, 1988); and to solve peasants’ problems related to soil erosion, declining soil fertility, weeds, and pests: as well as degradation of forest, pastures and rivers (Scherr, 1992; Nair, 2007; Valdivia et al., 2012; Young, 1988, 1989);

4. Their agroforestry practices may be a reaction to decreasing agricultural productivity (FAO, 1989a in Belsky, 1993) and diminishing farmland access due to population growth (FAO, 1989 a; Scherr, 1992 in Belsky, 1993);

5. Tree cultivation is less labour intensive than that of other crops, so provides opportunity for peasants to engage in paid work and off-farm activities to generate cash income (Arnold, 1987; Belsky, 1993; FAO, 1989a, 1989b; Young, 1988);

6. Trees for peasants can be a form of life insurance that they can draw upon in an emergency (Chamber & Leach, 1989);

7. Increasing demand for timber and non-timber products offers an opportunity for peasants to benefit from timber (Belsky, 1993; Premova et al., 2012; Valdivia, et al., 2012); and

8. Governments’ watershed programs along with other forms of environmental conservation and protection may motivate peasants to grow trees (Belsky, 1993).

Based on the relative proportion of annual and perennial crops, agroforestry can be practised in various ways as described in Table 3.3.
Table 3.3: Various agroforestry practices

| Integral Agroforestry/ Continuous Intercrops | Perennial crops/trees are planted between annual crops and/or as a boundary for annual crops.  
Home gardens in which different kinds of trees, vegetables, and herbaceous plants are densely and randomly cultivated in the space surrounding the house.  
Planting shrub crops (e.g. coffee, tea and cacao) with perennial trees (e.g. *albizia*) whose leaves provide shade and fertiliser for the crops. |
| Temporary Intercrops/ Relay agroforestry | Planting perennial crops/trees in rotation cycle with annual crops.  
Growing trees together with crops in one place for 1 to 3 years. When the trees are mature and their canopies create dense shade, the peasants stop planting annual crops below the trees. |
| Monocrops Plantation | Planting annual monocrops and/or perennial monocrops in separate areas at the same time. |

Sources: Adapted from Young (1988) and Belsky (1993).

3.4.2 Supporting peasants to benefit from timber enterprises

Supporting peasants to access the commercial timber market has potential to reduce their poverty due to their competitive advantages over large-scale forest producers in the commercial market (Scherr, 2004; Scherr et al., 2002, 2004). The advantages are:

1. Peasants as small-scale forest producers can offer several forest products to the commercial market. They can supply timber for domestic markets that do not require large volumes and consistent supply, as well as high-value timber for manufacturing furniture and other home products. They can sell certified timber and non-timber forest products, and can also offer forest product processing; and

2. Small-scale extraction can maintain sustainability of forests, so they can attract consumers and investors who wish to be involved in a ‘socially responsible’ market niche; for example peasants who live in high-ecosystem value areas have an opportunity to receive payment for ecosystem services.

The Indonesian government, through government-initiated collaborative plantation management, has made many efforts to support peasants as tree growers. Among these have been providing financial incentives to plant trees (e.g. free seedlings, physical inputs, paid labour for planting), and granting community management rights for 25 to 60 year periods. However, the government does not always provide incentives for maintenance costs (Nawir & ComForLink, 2007). By contrast, in the out grower schemes found in
corporate-initiated collaborative management, companies usually: provide incentives (e.g. for tree planting and maintenance, harvesting and transportation costs); provide social services and assistance during the period between planting and harvesting (e.g. planting non-forestry crops); negotiate fair prices and form grower’s groups. However, in monopsony (one buyer) conditions, companies usually cannot provide a guaranteed market and tend to buy at low prices (Nawir & ComForLink, 2007)

In the tree grower-initiated management or small-scale farm forestry, the peasants are self-financed. Therefore, they need an incentive for plantation maintenance. However, governments usually only provide free seedlings without maintenance incentives. Peasants also depend mostly on timber brokers as an intermediary for harvesting, and to transport the timber to buyers. Thus, timber brokers have more bargaining power to decide prices and to derive a larger proportion of profit than do peasants (Nawir & ComForLink, 2007; PERSAKI, 2010); in turn, they face many more risks and restrictions than do the peasants (e.g. getting an unexpectedly low price from buyers, paying informal fees/ bribery for timber transport) (Nawir & ComForLink, 2007). Efforts to realise potential market benefit for peasants are aimed at developing forest enterprises and removing policy constraints as explained in Table 3.4 (Scherr, 2004; Scherr et al., 2002, 2004).

**Table 3.4 Support for peasants to develop timber enterprises**

| Developing Forest Enterprises | • Improving competitive position in market to respond to domestic demand for forest commodities:  
  o improving product quality, and production technology, also marketing strategies that are responsive to consumers’ needs;  
  o developing a supply network to link producers to market;  
  o planting different species that are harvested at different times to manage risk.  
• Strengthening organisation of producers:  
  o establishing groups of producers to bridge gaps in the value chain, organise marketing deals, make investments and arrange processing activities.  
• Developing strategic business partnerships between private industry and local producers.  
• Establishing business services managed by for-profit public or civic agencies that provide management services, organisational support and assistance in technical financing, marketing and information.  
• Research, education and training programs about community forestry. |
|---|---|
| Revise policies to support tree planting | • Guaranteeing forest access and ownership security.  
• Removing regulatory barriers.  
• Reforming forest market policies that discriminate against low-income forest producers (e.g. more flexibility in market operations and quality requirements, less taxes, concession fees and service charges). |
Participation by various actors is needed to support peasants’ small-scale forest enterprises in order to combat poverty and promote conservation (Scherr, 2004; Scherr et al., 2002, 2004), such as:

1. *Private businesses* (e.g. forestry companies, community organisations, and private financial and business services) are needed in building partnerships with local producers. They can also participate in government policy reform.

2. *Governments* at national and local level also play an important role in helping peasants develop their business by providing land tenure and security of access to forests, reforming market laws and regulations to promote a ‘level playing field’, simplifying regulations and taxation, fostering business support services, involving forest producers in forestry policy, and providing a safety net for the poorest and landless peasants.

3. *Development organisations* (e.g. non-government organisations) can establish business support services, facilitate business partnerships and arrange management plans, as well as provide technical, management, and marketing assistance.

4. *Conservation organisations* (e.g. non-government organisations) can promote policy change and people participation in the forestry policy-making process to support forest producers in developing their business, and in order to conserve forests.

5. *Research Organisations* can also contribute by conducting research to improve production, processing, technical, financial, marketing, and organisational systems: also to design business models that are more reliable, accessible, efficient and profitable for low-income forest producers.

The roles of forestry actors in supporting peasants are illustrated in Figure 3.1.
Examples of external actors’ efforts in developing SFEs can be seen in projects conducted by ACIAR. One of these aims to enhancing on-farm incomes through improved silvicultural management of teak and paper mulberry plantations in the Luang Prabang Province of the Lao PDR, by incorporating paper mulberry into a mixed teak agroforestry system. Conducted from 2008 up to 2012, this project has helped peasants to improve silvicultural management of teak plantations, develop and refine agroforestry systems involving teak and paper mulberry, and implement village-based genetic improvement of teak. The project also established a farmer-participatory teak selection and testing program; as well as undertaking economic and social analyses using assessments of whole-farm budgets in comparison to alternative land-use options (ACIAR, 2004).

While the first example given above tried to enhance incomes of farmers by incorporating a non-timber forest product into a mixed teak agroforestry system, another example is the ACIAR project that aims to enhance food security for rural people in eastern Africa, by focusing on the introduction of trees within farming systems in Ethiopia and Rwanda (from 2012 to 2013). The project began with a workshop to renew commitment from the Ethiopian and Rwandan governments, and refine understanding by the project partners of their roles in the project. Then, the workshop was followed by five work packages (ACIAR, 2012).

Work package 1 comprised surveys including household baselines, land health, markets, and extension system and tree inventory surveys. Work package 2 consisted of participatory trials and modelling work to create strategy for further activities. Involving students from Bangor, participants from Rwanda and Ethiopia and one staff-member from ICRAF headquarter – along with researchers from ICRAF, Rwanda, and Ethiopia – as well as two master’s students from Bangor, the activities included collection of local knowledge data for the two countries, workshops on participatory trial design, and also planning for the trials and their implementation (ACIAR, 2012).

Work package 3 focused on developing effective methods and enabling environments for increasing the adoption of trees on farms, and design tools for extension systems surveys. This stage included: a key informant’s survey (to identify existing extension systems, their strengths and weaknesses); a Rapid Market Appraisal (RMA) (to
identify bottlenecks and market opportunities in the agroforestry products’ value chain that require interventions to enhance adoption); a questionnaire for the seed/seedlings survey of key informants; and a stakeholder workshop in seed/seedlings systems. After completion of the three work packages, monitoring and evaluation (M&E) was conducted to provide a guide for future outcome and impact monitoring. Capacity strengthening was also embedded in all these activities. Capacity strengthening of researchers from educational and research institution, as well as farmers and extension workers was strengthened through the baseline survey enumerators training, modelling, participatory trials and design workshops along with local knowledge training (ACIAR, 2012).

Work package 4 was a revision of the final draft of the M&E strategy. Work package 5 consisted of agricultural extension engaging capacity needs assessment of governmental structures and extension agencies, as well as of NGOs and CBOs. A consultation was then held to assess the synergies and tensions in agricultural, environmental, and rural development policies as a basis for engaging in a policy dialogue with the government. Inputs from those activities were to provide recommendations on how to align sectoral policies to enhance the role of trees in food security in Ethiopia and Rwanda (ACIAR, 2012).
Figure 3.1: The roles of actors in supporting peasants

3.4.3 Eco-labelling: integrating environmental considerations into market functions

Aimed at conserving environmental resources, eco-labelling tries to create a new relationship between society and the environment by changing the production-consumption cycle through integrating environmental considerations into market functions (Ruzevicius & Waginger, 2007; Williams & Millington, 2004). Eco-labels provide information to consumers to distinguish products that are produced through a less harmful process to the environment than their competitors (Bratt, Hallstedt, Robert, Broman, & Oldmark, 2011; Dosi & Moretto, 1998; Melser & Robertson, 2005; Piotrowski & Kratz, 1999; Williams & Millington, 2004). Eco-labelling is optional for manufacturers. To display the eco-labels logo in their products, manufacturers have to operate an eco-friendly production system. The manufacturers will receive an incentive for their green activities if consumers are interested to buy their products (Carter, 2001; Bratt et al., 2011; Williams & Millington, 2004).

Eco-labelling has gained momentum since the introduction of Germany's Blue Angel eco-label in 1977 that was followed by more than 30 national eco-labelling programs, such as Nordic Swan in Scandinavia and the European Union Eco-Label Award Scheme (Bratt et al., 2011; Rashid, 2009; Salzman, 1997; WTO, 2000). It has also been more widely implemented since 156 countries who signed Agenda 21 at the Earth Summit (United Nations Conference on Environment and Development, Rio de Janeiro, 1992) endorsed eco-labelling (Melser & Robertson, 2005). The International Organisation for Standardisation (ISO) is an example of an eco-labelling organisation that has developed and categorised eco-labelling standards into three types: type I that includes multi-criteria third party programs, type II that includes self-declared environmental claims, and type III that includes life cycle assessment data (ISO, 1999, 2000, 2006).

Similar to this categorisation, Salzman (1997) divided ecolabels into single-issue voluntary labels, single-issue mandatory labels and third-party voluntary labels. Single-issue voluntary labels, such as ‘CFC’ free, are placed on the products by their manufacturers, retailers or marketers. Single-issue mandatory labels, such as ‘ecotoxic’ are usually required by national laws and subnational governments. Third-party voluntary labels show holistic judgments of the overall environmental impact of products. The claims
of products being environmentally friendly in the case of single-issue labels are usually not independently verified (Rashid, 2009), while the third-party voluntary labels are licensed by an independent third-party labelling authority. This body also audits whether the producers meet with the standards set by the labelling scheme (Rashid, 2009; Sonderskov & Daugbjerg, 2010) not only in terms of technical feasibility, but also of environmental impact criteria of products through a life-cycle analysis (LCA). Life-cycle analysis is assessment covering the use of the product - as well as wastes generated at every stage of the product’s life from materials used, production, distribution, packaging, use and disposal (Melser & Robertson, 2005; Piotrowski & Kratz, 1999). The third party can be a private organisation or a state agency (Sonderskov & Daugbjerg, 2010).

Eco-labelling offers several opportunities. It has been seen as a powerful, low-cost, market-based, ‘soft’ policy instrument to promote environmental protection (Salzman, 1997), as by using the eco-label, producers provide information about their environmental and social responsibility. The information provides for the rights of consumers to know about, and distinguish, ‘green’ products among other kinds of products, so it encourages consumers to be aware of environmental issues (Bratt et al., 2011; Dosi & Moretto, 1998; Melser & Robertson, 2005; Piotrowski & Kratz, 1999; Teisl, Peavey & O’Brien, 2001; Williams, 2004) and thus help to increase market efficiency (Bratt et al., 2011; Williams, 2004). It is also potentially a way to change the mindset of producers in order to reduce the negative externalities of production. In summary, it provides opportunity for producers to improve their market image, enhance their competitiveness, expand their market, and benefit from producing and selling certified products (Bratt et al., 2011; Teisl, 2001; Williams, 2004). Regarded as being at the centre of global cultural forces, it can mobilise the collective power of the global consumer to enforce better environmental governance (Williams, 2004).

Despite its advantages, there are several limitations of eco-labelling that lead to doubts about its effectiveness in conserving natural resources. It is a voluntary policy tool that uses no legal enforcement for its implementation and depends on commitment from producers regarding environmental issues for its application (Carter, 2001; Williams, 2004). If the number of eco-labelling producers were small, such marketing would not offer a competitive edge for producers, and would be unlikely to attract more producers.
(Williams, 2004). Eco-labelling is also highly dependent on commitment from, and willingness of, consumers to pay for ‘green’ or certified products that are sold at a higher price (Carter, 2001; Melser & Robertson, 2005; Williams, 2004). Therefore, the influence of eco-labelling on total consumption cannot be guaranteed, as the environmental effects of economic activity are determined by consumption levels. It may be more effective in improving consumers’ and producers’ behavioural patterns in the domestic market than solving global environmental problems (Williams, 2004).

Moreover, eco-labelling may have negative effects on developing countries related to trade barriers and extra costs of certification and compliance. Due to lack of sufficient technology, it is difficult for developing countries to meet eco-labelling standards. Therefore developed countries can misuse eco-labelling to establish non-tariff trade barriers to exports from developing countries. The cost of certification and compliance can also be higher for producers in developing countries if the certifiers are from other countries (Piotrowski & Kratz, 1999).

In relation to the ability of eco-labelling to motivate consumer response, studies show different results. Some studies [Teisl, Roe, & Hiks (2002); Loureiro & Lotade (2005); Thogersen (2002)] have suggested that eco-labelling can influence consumers, especially those in developed countries, to choose eco-labelled products. However other studies [Jacoby (1984); Wessells et al. (1999); Magnusson, Arvola, Koivisto Hursti, Aberg & Sjoden (2001)] provide contrary evidence.

The eco-labelling system provides a general standardisation, such as in the case of the forestry industry, where there is eco-labelling for sustainable forestry (Bostrom, 2003; Gulbrandsen, 2005) in the form of forest certification (Bostrom, 2003; Melser & Robertson, 2005) and forest-product certification (Teisl et al., 2001). Forest certification is issued by an independent third party, based on the compliance of forest management practice with environmental standards set by a forest certification scheme organisation. Forest-product certification also requires an independent third party to provide chain-of-custody assessment confirming that wood from certified forests is used in product lines (Teisl et al., 2001). The chain of custody provides an opportunity to track the origin of the forest products in every stage of the supply chain (Cashore, Auld, & Newsom, 2004).
3.4.4 Forest certification: enhancing peasants’ benefit from timber enterprises and maintaining sustainable forest management

One way to enhance economic benefits for peasants from timber marketing is helping them to achieve certification of sustainable forest management/forest certification, so they can access certified timber markets that offer higher prices for certified than uncertified timber.

The idea of forest certification began in 1941 when the American Tree Farm System was established (Hansen, Fletcher, Cashore, & McDermott, 2006). Compared to general certification that only deals with industrial processes and products (e.g., the International Standards Organisation using the ISO-system), forest certification deals with forest management (e.g., how to grow and harvest trees, maintain land after harvesting, and assess impacts on nature) (Klingberg, 2003).

Classified by the World Trade Organisation (WTO) as a standard for processing and production methods, forest certification explains ‘how natural resources are managed and how harvesting is carried out’ (Fischer, Aquilar, Jawahar, & Sedjo, 2005, p. 2). Many trans-national and domestic NGOs have set up private standard bodies to provide public recognition for landowners and companies who practise sustainable forest management (Meidinger, 1997) and using consumer support to enforce the standard (Fletcher & Hansen, 1999). Forest certification also involves independent verification that forest products are extracted from forests, and managed, according to certain standards (Hansen et al., 2006; Markopoulos, 2003).

The emergence of forest certification as a non-state market driven (NSMD)

The 1990’s were a notable time for the emergence of a new governance system called the non-state, market-driven (NSMD). Initiated by non-government actors (e.g., NGOs, social organisations, and international institutions), the NSMD uses the demand side of global markets to regulate forestry, fisheries, and mining practices across state territorial boundaries (Cashore, 2002). This system can be termed private regulation (Meidinger, 1999), standardisation (Boli & Thomas, 1999; Brunsson & Jacobsson, 2000), non-state-driven rule-making (Bostrom, 2003) or a market-based instrument (MBI) (Markopoulos, 2003) in which non-government actors such as NGOs try to reverse the downward effects of globalisation on environmental, social and labour standards (Vogel, 1995, p. 226).
The emergence of forest certification as an NSMD governance system was closely related to global economic and political change (Cashore, Auld, & Newsom, 2003) which was stimulated by several factors:

1. Economic globalisation has hampered domestic policy options for protecting environmental and social interests, as capital mobility, foreign direct investment and international trade at domestic level are more focused on economic interests. (Berger & Dore, 1996);

2. There has been increasing interest in the use of ‘internationalisation’ in which trans-national actors conduct market-based boycott campaigns aimed at country’s foreign markets, to put pressure on domestic policy about protection of the environment and social interests (Bernstein & Cashore, 2000; Klingberg, 2003; Vogel, 1995); and

3. Concern about large-scale timber extraction for timber-based industries has increased because of the deterioration of tropical forests since the 1980’s; and also about the in capacity of international democratic law-making or international negotiations to overcome the problem (Cashore, 2002; Fischer et al., 2005; Klingberg, 2003; Meidinger, 2001, p. 11): for example, the failure of the Rio Earth Summit in 1992 to produce a binding global forest convention (Bostrom, 2003; Cashore et al., 2003), and the inability of states to deal with the deforestation problem (Bostrom, 2003).

Those stimulants have motivated environmental NGOs to create market-oriented policy instruments by combining the use of the traditional boycotts as ‘sticks’ (disincentives) against retailers who sell products of unsustainable forestry with the offering of forest certification as ‘carrots’ (incentives) to forest producers who implement sustainable forest management (Cashore et al., 2003, p. 227). For example, environmental NGOs have tried to raise public awareness about the deforestation problem by conducting boycott campaigns against forest product retailers (e.g. B&Q in the United Kingdom, Ikea in Sweden, and The Home Depot in the United States) that have been accused of using timber harvested from unsustainable forests (Cashore, 2002; Fischer et al., 2005). To strengthen the effectiveness of the boycott, these NGOs have offered public recognition through forest certification for forest producers that implement sustainable forest management (Cashore, 2002; Fischer et al., 2005).
As a new form of governance, the NSMD governance system has several key features:

1. Its objectives are set by non-state organisations (Cashore et al., 2003);
2. NSMD regulation is not reliant on democratic institutions, so its authority to regulate is granted through the market’s supply chain (Klingberg, 2003); the enforcement of its regulations is not dependent on state sovereignty (Cashore, et al., 2003) and independent from state authority (Bostrom, 2003); and
3. NSMD regulation is voluntary since there is no legal punishment for non-compliance (Cashore, 2002).

In daily practice, forest certification can be seen from different perspectives and used to pursue various interests. For forest producers (industrial forest companies, individual/ community forest owners) and retailers, forest certification can be a tool to inform consumers that they have conducted sustainable forest management (Fischer et al., 2005; Hansen et al., 2006; Klingberg, 2003). Thus, it can be used to gain a competitive advantage over uncertified forest producers in the eyes of consumers (Fischer, et al., 2005; Klingberg, 2003). For other forestry stakeholders (e.g. NGOs), forest certification can be a way to improve forest management. Even though forest certification is not produced by political and democratic institutions, as a voluntary market instrument, it is soft policy resulting from demand-side pressures that encourages forest producers to implement sustainable forest practices (Eba’a Atyi & Simula, 2002; Stevens, Ahmad, & Rudell, 1998).

It operates by applying economic and social pressure to non-participants and offering economic benefits for participants (Klingberg, 2003). Moreover, for some NGOs, forest certification may be a vehicle to pursue power, status and money. Forest certification is not only about shifting power from government agencies, forest owners, and industries to NGOs that develop and promote certification systems for forestry practice: it is also about attracting funding for regulating sustainable forest management practice around the world. For instance, the FSC received about US$10 million from the Ford Foundation to implement forest certification (Klingberg, 2003).
Various forest certification schemes and competing schemes

The international environmental NGO WWF built a coalition between some environmental groups, retailers, social activists, forest landowners and forestry companies to establish the international Forest Stewardship Council (FSC) in 1993 in Canada (Bostrom, 2003; Cashore et al., 2003; Fischer et al., 2005; Hansen et al., 2006). As a multi-stakeholder organisation (Bostrom, 2003), by January 2006, FSC had certified about 25 percent of the total certified forest areas (Durst, McKenzie, Brown, & Appanah, 2006). Its main goal has been to promote sustainable forest management (environmentally responsible, socially beneficial, and economically viable management) to combat deforestation of tropical forests by creating a standards and certification program (Elliot, 1999; Hansen et al., 2006; Meidinger, 1999).

However, for industrial forest companies, following FSC principles is not simple since these companies are obliged to change their operational practices to gain support from domestic and international environmental groups. They also worry that they might have less influence in the policy-making process within FSC, as FSC was initiated by environmental groups. Based on those considerations, industrial forest companies have used the NSMD system to establish alternative schemes/programs of forest certification that reflect business interests, with non-governmental and governmental organisations as advisors or consultants (Bostrom, 2003; Cashore et al., 2003).

As an alternative to the FSC scheme, the American Forest and Paper Association (AF&PA), an industry trade group, established the Sustainable Forestry Initiative (SFI) certification scheme in 1995 (Eba’a Atyi & Simula, 2002). In Canada, 23 Canadian forest industry associations combined to form the Canadian Sustainable Forestry Certification Coalition, which created the Canadian Standards Association (CSA) in 1996. The CSA body consists of a multi-interest technical committee that aims to develop a sustainable forest management program (Cashore, 2002; Hansen et al., 2006). In 2002, SFI recognised the CSA scheme as being equally important to its own scheme (Hansen et al., 2006).

In Europe, European landowner associations that felt excluded from FSC created an ‘umbrella’ mechanism called the Pan European Forest Certification (PEFC) system (renamed as the Programme for the Endorsement of Forest Certification in 2003) (Cashore,
Of all the forest certification schemes/programs, PEFC has certified the largest forested area. PEFC had certified about 69 percent of all certified forest areas by January 2006 (Durst et al., 2006). In March 2005, PEFC recognised the CSA program as the equivalent of its own and allowed CSA-certified operators to use the PEFC label. SFI also approved recognition of PEFC in December 2005 (Hansen et al., 2006).

After those forest certification schemes were created, many others were developed. Many countries (e.g. Finland, Brazil, Malaysia, and Indonesia) have developed their own country-based forest certification schemes/programs. Finland’s country-based forest certification was the first community-based certification program that was recognised by PEFC (Hansen et al., 2006).

Each forest certification scheme has created a standard set of guidelines that should be followed by its applicants. The FSC scheme prefers performance-based standards that set compulsory rules to be followed by forest certification seekers, while other such schemes use system-based standards that refer to more flexible and non-compulsory procedures (Bostrom, 2003; Cashore, 2002). To gain credibility for their forest certification programs, most accreditation bodies (e.g. FSC, CSA, SFI, and PEFC) have developed an independent set of standards and conduct a verification process. To prove their standards are set independently, these accreditation bodies consist of independent actors, most of whom are not certification applicants (Hansen et al., 2006).

The difference between FSC and other schemes is that it was created by environmental NGOs, while PEFC and SFI were designed and supported by landowners and the forestry industry. CSA programs were created by standards organisations that were formed to support trade and industry (Hansen et al., 2006). The competition between forest certification schemes (i.e. FSC, PEFC, SFC) not only has resulted in segmented markets, but also caused confusion among consumers (Fischer, 2005), among forest landowners and forest companies (Cashore et al., 2003). “The number of certification schemes is a scene of conflict ... as certification grows, tensions and interest will decrease, and the process will play a more marginal role in the future” (Klingberg, 2003, p. 417-418).
Therefore, harmonization of the dominant forest certification standards is important to offer benefits to both consumers and suppliers (Fischer, 2005). Having been led by the PEFC, mutual recognition of different forest certification schemes is occurring. For example, the PEFC Council has endorsed 17 national schemes that comply with all their standard requirements (Fischer, 2005). In Indonesia, FSC and LEI also give reciprocal or joint certification (Hinrichs, Muhtaman & Irianto, 2008). Even though mutual recognition does not assure retailers and consumers that all participating forest managers meet equivalent standards, it appears to be a positive step towards mutual recognition of the different certification schemes (Fischer, 2005).

**Effectiveness of forest certification in influencing timber consumption**

Forest certification is often perceived as market-driven regulation. In other words, the end users or consumers have the decisive power to regulate the forestry practice of producers. This assumption is correct as long as consumers are aware of the importance of buying material produced in a sustainable way. However, forest certification is more of an organisation-driven regulation if consumers are not concerned with sustainable forest management, so that demand for certified timber is driven more by NGOs, forest owner organisations, forestry corporations, professional consulting firms, and retailers than by consumers (Klingberg, 2003; Fischer et al., 2005).

Several researches have showed that consumers place more priority on product features, such as price, quality and appearance than on environmental credentials (Forse'n, 2002; Ryhn, 2002). Others have demonstrated that eco-labels on certified products provide an option for consumers to choose products made from certified forest materials if there is no price difference between certified and uncertified products (Anderson & Hansen, 2004). Moreover, some researchers have reported that few consumers prefer to buy certified products when their price is higher than that of uncertified products (Anderson & Hansen, 2004; Ozanne & Vlosky, 1997). These people are usually members of environmental organisations (Ozanne & Vlosky, 1997), which suggests that public knowledge of and interest in forest certification are still lacking (Klingberg, 2003).

Even though some consumers still want products that are derived from forests and produced in a sustainable way, the unwillingness of most to pay for certified timber
products has not driven the creation of regulation for sustainable forest management (Frederiksson & Westin, 2002) and has not been enough to deliver more economic benefit for tree growers who practise it (Karna, Steineck, & Juslin, 2001; Sedjo & Swallow, 2002).

**Effectiveness of forest certification in benefitting non-industrial private, small-scale and/or community-based forest enterprises**

The intended goals of forest certification are not only to create environmental but also social and economic benefits (Thornber, Plouvier, & Bass, 1999). There are various definitions of small-scale forest enterprises (SFEs). SFEs can be perceived as forest enterprises that are small in terms of the forested area (less than 400 hectares) (Rickenbach, 2002). SFEs can also be referred to as being conducted by non-industrial private (individual or family) forestland owners (Butterfield et al., 2004). In Canada, SFEs are often community-based forest enterprises (CFEs) (Madrid & Chapela, 2003). CFEs are forest enterprises that are owned by communities whose members depend on the forest resources. Even though CFEs cannot automatically be categorised as SFEs, they are usually smaller scale in terms of area, production and capital than industrial forest enterprises (Markopoulos, 2003).

In the initial stages of forest certification, it can often be difficult for SFEs to meet the stringent forest certification standards. Nussbaum et al. (2001) identified several factors that act as barriers to forest certification for SFEs, which included:

- The length and language of the standards (standards can be written using a complex technical language) - if the SFEs have limited time available, low literacy levels, and/or are non-professional foresters who combine forest management with their other work;
- Some requirements of the standards may not be relevant to all situations; and
- Some requirements are inappropriate or not feasible for an SFE with a small forest area (e.g. documentation of landscape-level values of the forest).

Even though the FSC has simplified certification procedures for SFEs, it is not always easy even for well-managed SFEs to follow them due to limited financial and human resources (Bensel, 2001; Higman & Nussbaum, 2002; Markopoulos, 2003; Scarse, 1999). SFEs often have limited financial resources because they plant trees not only to gain
profit from harvesting timber but also to benefit from their ecological and social importance (Nussbaum, Garforth, Scarse, & Wenban-Smith, 2001); and for recreational reasons, economic security, or an investment (Metla, 2002 in Butterfield et al., 2004).

Since not all SFEs focus only on their timber business, they usually provide an inconsistent supply of small quantities (less than a truckload), containing various species, sizes and qualities of timber. This fact makes it difficult for SFEs to meet global market demand and to compete with large corporations in the certified timber market. Forest certification would be less relevant to SFEs if they could not provide a large-scale and consistent supply (Butterfield et al., 2004). Certification costs also would burden their owners, if the profits from selling certified timber were less than costs of certification (Marijnissen, 1998; Scarse, 1999; Thornber, Plouvier & Bass, 1999).

Moreover, as they are owned by individuals or families with limited human resources, it is not easy for SFEs to enhance the commercial value of their forests. One reason is that SFEs usually have limited marketing expertise and knowledge (Butterfield et al., 2004). Due to their limited marketing skills in accessing international markets, SFEs need market intermediaries (e.g. cooperatives of producers) that often also lack expertise and resources (Marijnissen, 1998; Scarse, 1999; Thornber et al., 1999).

Despite these challenges, forest certification may potentially deliver benefits for SFEs. It provides opportunities for them to access new markets for certified timber and to obtain higher profits from the price premium of their certified products (Guillen, 2000; Irvine, 1999; Marijnissen, 1998; Markopoulos, 2003). By following forest certification standards, forest producers can improve their administration (e.g. forest management planning and inventories) as well as their forest management practices (e.g. monitoring, evaluation, silvicultural techniques). Moreover, forest certification may attract support from external actors (e.g. NGOs, government, donors) to provide technical and financial assistance to develop their SFEs and related projects (Bass, Thornber, Markopoulos, Roberts, & Grieg-Gran, 2001; Guillen, 2000; Irvine, 1999; Marijnissen, 1998; Markopoulos, 2003).
Forest certification can also be evidence in favour of forest producers in the eyes of other actors (e.g. governments, investors and environmental groups) that they have practised sustainable forest management so they can avoid boycotts, and improve their credibility as well as bargaining power in the public arena (Guillen, 2000; Irvine, 1999; Marijnissen, 1998; Markopoulos, 2003). Despite the lack of evidence of forest certification’s ability to combat forest governance problems (e.g. illegal logging and corruption), setting up a process of national forest certification may encourage policy reform, as well as revision of regulations and institutions. However, supportive policy, regulations and institutions are needed as a pre-condition for forest certification to be effectively implemented (Bass et al., 2001).

Moreover, through forest certification, communities who manage certified forests in industrial concession areas and who act as partners in company lands may gain stronger security of tenure, and improved working conditions (Richards, 2004). If processes to set up national forest certification standards involve multiple-stakeholder consultation, forest certification can enhance the role of civil society in achieving sustainable forest management (Richards, 2004). Forest certification may also attract payment for environmental services (PES) (e.g. water and hydrological, carbon sequestration and biodiversity services) since PES also requires high standards of sustainable forest management (Leslie, Sarre, Sobral Filho, & bin Buang, 2002). Limitations and strengths of SFEs in benefitting from forest certification are summarised in Table 3.5, below.
Table 3.5: Limitations and strengths of SFEs in benefitting from forest certification

<table>
<thead>
<tr>
<th>Limitations of SFEs</th>
<th>Potential benefits for SFEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Focus not only on profit but also on ecological and social importance of forests, as well as their recreational benefit and value as economic security or investment;</td>
<td>• Opportunity to access new markets for certified timber and gain a price premium and higher profits;</td>
</tr>
<tr>
<td>• Usually provide inconsistent supply of small quantities with various species, sizes and qualities of timber;</td>
<td>• Improve their administration and forest management practices;</td>
</tr>
<tr>
<td>• Limited managerial capacity and marketing knowledge/skills to access international markets;</td>
<td>• Attract support from external actors that may provide technical and financial assistance to develop their timber enterprises and related projects;</td>
</tr>
<tr>
<td>• Cooperatives of producers as market intermediaries often lack expertise and resources;</td>
<td>• Avoid boycott as well as improve credibility and bargaining power in the public arena;</td>
</tr>
<tr>
<td>• Difficulty in following forest certification procedures due to limited human and financial resources;</td>
<td>• Stronger security of tenure and improved worker rights and income for communities who manage certified forests in industrial concession areas and that act as partners in company lands;</td>
</tr>
<tr>
<td>• Forest certification may undermine their traditional values by attracting them to change farming practices from subsistence agriculture to forestry;</td>
<td>• Encourage reformation of policy, regulations and institutions;</td>
</tr>
<tr>
<td>• The costs of forest certification would burden the owners if the profits from selling certified timber were less than the costs involved.</td>
<td>• Enhance role of civil society in realising sustainable forest management;</td>
</tr>
</tbody>
</table>

Source: Developed from Bass et al. (2001); Bensel (2001); Butterfield (2004); Guillen (2000); Higman and Nussbaum (2002); Irvine (1999); Leslie et al. (2002); Marijinissen (1998); Markopoulos, (2003); Metla (2002); Nussbaum et al. (2001); Richard (2004); Scarse et al. (1999); Scarse (1999); Thornber et al. (1999).

Ability of forest certification to influence sustainable forest management of tropical forests in developing countries

Even though many forest producers join forest certification programs, the influence of these programs on sustainable forest management practices is unclear since forest producers may have already had high standards of forest management before applying for certification. They may also have improved their forest management during assessment for certification (Eba’a Atyi & Simula, 2002; Markopoulos, 2003; Klingberg, 2003). However, forest certification has raised forest owners’ and managers’ awareness of the importance of sustainable forest management as an indirect effect (Klingberg, 2003).

The original aim of forest certification was to protect tropical forests, mostly located in developing countries, where deforestation mainly occurs. However, due to some difficulties (e.g. achieving certification targets in developing countries), its focus was
extended to improving forest practices in Europe and North America (Cashore et al., 2003; Klingberg, 2002). Therefore, most certified forested areas are located in non-tropical forests in developed countries (Fischer et al., 2005), as presented in Figure 3.2, below.

**Figure 3.2:** Percentage of certified forests from different regions

![Diagram showing percentage of certified forests from different regions](image)

*Source: Durst et al. (2006).*

The adoption of forest certification in developing countries is occurring at a slower rate than in developed countries because of deforestation in developing countries. This is mostly caused by the conversion of forested to agricultural land. Thus the possibility of receiving a price premium from forest certification will be less likely to motivate people to maintain the sustainability of forests (Klingberg, 2003; Whiteman, Brown, & Bull, 1999). Moreover, 80 percent of timber in developing countries is for supplying local markets where willingness of its consumer to pay a price premium is still relatively low (Whiteman et al., 1999). If the willingness of end consumers to pay a higher price for certified products were low, forest certification would be less attractive for forest producers (Bass et
al., 2001; Durst et al., 2006; Eba'a Atyi & Simula, 2002; Fischer et al., 2005; Molnar, 2003).

Forest growers in developing countries also lack financial and human resources. If auditors are from developed countries, the direct cost of paying these auditors is often too expensive for forest producers in developing countries that have lower currency rates than those of developed countries. It is also more complicated and costly to adjust forest management in tropical forests that have more heterogeneity than non-tropical forests. Even though national certification standards can be a way to reduce certification costs, not all developing countries have the capacity to produce their own standards that are suited to local conditions (Bass et al., 2001; Durst, 2006; Eba’a Atyi & Simula, 2002; Fischer et al., 2005; Markopoulos, 2003; Molnar, 2003).

Governments in developing countries usually operate with limited financial and human resources, and have a weak commitment to creating better forest governance as a pre-condition for the implementation of sustainable forest management. For example, tenure rights in developing countries have usually not been clearly defined. However, forest certification needs clearly defined tenure rights, as uncertain and conflicting rights in such matters can hamper forest producers in gaining certification. Moreover, conflicting forest policies, as well as ineffective implementation and/or low enforcement of forest laws, have exacerbated the slow pace of expansion for forest certification in developing countries (Bass et al., 2001; Durst, 2006; Eba’a Atyi & Simula, 2002; Fischer et al., 2005; Markopoulos, 2003; Molnar, 2003).

The gap between forest producers’ practice and management standards, and the requirements for forest certification cannot always be resolved, depending on local conditions. Sometimes certification standards are easier to implement in non-tropical than tropical forest. For example, it is easier to monitor the impact of forest practices on biodiversity in non-tropical countries that have less biodiversity than tropical countries (Bass et al., 2001; Durst, 2006; Eba’a Atyi & Simula, 2002; Fischer et al., 2005; Markopoulos, 2003; Molnar, 2003). Therefore, the impact of forest certification has been more notable in large-scale industrial and state-owned temperate and boreal forests in
developed countries, than in small-scale individual and community-owned tropical forests in developing countries (Nussbaum & Simula, 2004).

**Efforts to deliver benefit from forest certification for SFEs, especially in tropical forests of developing countries**

As explained previously, the main challenges for SFEs in developing countries in gaining forest certification are financial limitations. Costs of certification can be divided into direct and indirect categories. Direct costs are those that must be paid by the applicants for certification to cover inspection/auditing and administration expenses. An auditing cost is a payment for professional auditors who conduct field inspections, reports and annual follow-ups (Fischer et al., 2005; Hansen et al., 2006; Simula, 1996). Indirect costs are those incurred in preparing for certification before inspection and in improving performance as recommended by auditors (Fischer et al., 2005, Simula, 1996). The total cost of certification depends on the size of the forest areas to be certified and the forest certification programs chosen (Sample et al., 2003). Landowners who have smaller forests are obliged to pay a higher cost per hectare than those who have larger forests (Fletcher, Rickenbach, & Hansen, 2002). The other challenges for SFEs are technical and administrative limitations. There are several ways to overcome them:

1. To reduce the certification costs and simplify procedures, small-scale or privately-owned forest enterprises are allowed to use group certification by forming a forest management unit. The forest management unit could act as a single entity to apply for one forest certification for all members of the group so as to undergo one assessment (Fischer et al., 2005; Hansen et al., 2006);

2. To overcome the financial and administrative limitations of SFEs, FSC has developed the small and low-intensity managed forest initiative (SLIMF) that offers simpler and more flexible procedures for forest producers (FSC, 2002) whose forest is smaller than 100 hectares (which can be increased to less than 1000 hectares), and whose harvesting rate is less than 20 percent of the mean annual growth increment of total production: and whose total harvest is less than 5000 cubic meters per year in one forest management unit (Durst et al., 2006; Hansen et al., 2006);

3. The International Tropical Timber Organisation (ITTO) has promoted ‘stepwise’ or phased approaches to certification because those standards that
focused on the end result, rather than progress made, were too high for tropical countries. Implemented in various ways, the stepwise approaches allow forest producers to achieve certification standards by following several steps or phases (Durst, 2006; (Eba'a Atyi, Nussbaum, & Simula, 2002)

4. Some international donor communities and international environmental NGOs (e.g. The World Bank, the World Wildlife Fund/ WWF, Alliance for Forest Conservation and Sustainable Use) (Durst, 2006) provide financial and technical support for SFEs to gain forest certification, sometimes as part of their development initiatives (Fischer et al., 2005; Markopoulos, 2003). While external financial and technical support has helped SFEs to pursue forest certification, the control by external actors of the certification process may cause passive participation. This situation may create dependence and decrease self-help capacity, a problem that may undermine the commitment of the communities to improving their forest management practices (Markopoulos, 2003). Moreover, these external supports may force the forest producers to take market risks that are beyond their capacity (Richards, 2004) and interests. Therefore such aid cannot guarantee the successful penetration of certified timber markets by SFEs, and does not provide strong enough motivation for them to compete in certified timber markets (Markopoulos, 2003); and

5. To reduce certification costs, many developing countries (e.g. Brazil, Malaysia, and Indonesia) have introduced national forest certification programs that are suitable to local conditions. This initiative was followed by ASEAN countries who agreed on a Pan-ASEAN timber certification scheme; as well as by African countries with a Pan-African forest certification scheme (Durst, 2006).

**Forest certification in Indonesia**

In Indonesia, forest certification gained momentum in the early 1990’s when Indonesia, as a member of the International Tropical Timber Organisation (ITTO), signed the *Guidelines for Sustainable Management of Natural Tropical Forest*, and agreed to develop national guidelines and implement them by 2000. The main pressure to introduce forest certification came from an international boycott of Indonesian wood products in the European and US markets. In line with international pressures, there was also increased domestic concern
about forest management, motivated by a view that it needed to accommodate community rights and roles more (Elliot, 2000).

FSC and LEI (Lembaga Ekolabel Indonesia) are forest certification schemes that operate in Indonesia. LEI (Indonesian Eco-labelling Institute) is an Indonesian accreditation body that was established in Indonesia to create standards for sustainable forest management in Indonesia. In certifying community forests, FSC uses the forest certification scheme of Small and Low Intensity Managed Forest (SLIMF), while LEI uses a forest certification scheme for sustainable management of community and cooperatives’ forests/ *Pengelolaan Hutan Berbasis Masyarakat* / PHBM (Hinrichs, Muhtaman, & Irianto, 2008). LEI and FSC signed a Joint Certification Protocol in September, 2000. This agreement means that, to achieve an LEI/FSC label, forest operations in Indonesia must satisfy the certification standards of both LEI and FSC (LEI, 2005).

LEI’s certification includes schemes for:

1. *Community-based forest management certification*: for management units of community forests in which an individual or community manages privately-owned, state, communal or customary forests for commercial and subsistence needs;
2. *Natural forest certification*: for forest concession holders that manage natural production forests;
3. *Plantation forest certification*: for companies that manage plantation forests;
4. *Phase-based forest certification*: so that forest producers can reach these standards in several phases; and
5. *A chain-of-custody standard*: a log tracking system for industries that process forest products, such as furniture, plywood, sawn wood, and pulp and paper (LEI, 2009)

The implementation of forest certification in Indonesia has received support from many NGOs, among which are The Indonesian Tropical Institute (LATIN), The Indonesian Network for Forest Conservation (SKEPHI), The Tropical Forest Trust (TFT), and The Nature Conservancy (TNC). Those NGOs believe that forest certification has potential: first, to promote participative mechanisms for stakeholders in all stages of forest certification; second, to improve concession management so that it focuses not only on economic, but also ecological and social aspects of forest management; third, to influence
forest policy through definition of management standards, transparent and independent auditing, and participative approaches to conflict resolution; and fourth, to promote community forests and to help them to gain legal recognition for their forest practices through certification of community forests (Colhester, 2003; Hinrich, 2005).

Despite these supports, many other NGOs have criticised the implementation of forest certification. While NGOs, such as Friends of the Earth Indonesia (WALHI), the Alliance of Indigenous People of the Archipelago (AMAN), the Rainforest Foundation, the Rainforest Action Network, and the Down to Earth Network have not rejected the idea of forest certification, they have asked for a moratorium on its availability for forest concession holders that have neglected indigenous peoples’ land rights (Colhester, 2003; Hinrich, 2005).

These NGOs consider that pre-conditions for implementing forest certification should be revised (e.g. the concession system should be revised; indigenous peoples’ land rights should be clearly defined and recognised; and tenure conflicts should be managed). Without improving the pre-conditions, forest certification for concession holders will only legitimate the present unfair system rather than improving forest management (Colhester, 2003; Hinrich, 2005).

Between October 2004 and November 2007, LEI and FSC issued six certificates covering community forestry areas in Indonesia. The certified areas in Central Java and Southeast Sulawesi have been established on private land by local people for several decades. The certified areas are dominated by small-scale teak plantations, even though in some areas, the teak stands are complemented by mahogany and acacia. The certification process in these areas was supported by donors though the involvement of local NGOs and a private sector organization (TFT) (Hinrichs et al., 2008).

Several other community forestry areas in Indonesia are currently undergoing preparations for CBFM certification. A main difference between those areas and the previously certified is that local governments are becoming more involved in the process by promoting CBFM – such as in the case of Central and East Java, along with Aceh. In addition, preparations are underway for natural forests in Indonesia to become certified
(Hinrichs et al., 2008). Certified community forestry areas in Indonesia and areas currently under preparation for CF certification in Indonesia are illustrated in Appendix A.6.
Chapter four
Research methodology

4.1 Introduction
This research focuses on how two NGOs (Trees-4-Trees and PERSEPSI) play their roles in supporting peasants to develop community forestry in Central Java, Indonesia. In order to explore how NGOs can optimise their contribution to farm forestry in Indonesia, three main aspects were studied:

- The extent to which the NGOs’ approaches to developing farm forestry meet with peasants’ livelihood strategies;
- The extent to which the NGO-led approaches to farm forestry (i.e. the way in which NGOs encourage local people to participate in farm forestry programs, and the outcomes of the NGO-led farm forestry) improve participation levels as well as address poverty, deforestation, and lack of timber supply; and
- The challenges faced by the NGOs in implementing their farm forestry programs.

This chapter describes the methodology adopted in order to answer the research questions. It begins by explaining several factors that influence social research, namely theory, epistemology, and researcher’s value orientation. This chapter also explains justifications for selecting the particular NGOs I used as case studies, and the broader research design.

The explanation of the research design includes how relevant theories were used, what kind of questions were appropriate for my topic, the case study methods, interviewee selection criteria, the determination of units of analysis, and how the data were collected and analysed. In order to deal with the limitations of case studies, several strategies were included in the research design, such as how to answer common criticisms of the approach (e.g. bias and generalisation) and how to enhance the quality of this research by optimising its validity and reliability.
4.2 Social research

The simple definition of research is “a way of going about finding answers to questions” (Neuman, 2006, p. 2). Building on this definition, social research is “a collection of methods and methodologies that researchers apply systematically to produce scientifically knowledge about social world” (Neuman, 2006, p. 2). Compared to other ways of accumulating knowledge (e.g. authority, tradition, common sense, media and personal experience) that often have flaws (e.g. gross generalisations, unsubstantiated conclusions), social research is likely to have fewer defects (Neuman, 2006).

To create new knowledge about the social world, social research should follow a set process and be based on science, which is defined as human invention in order to produce knowledge (Neuman, 2006). Science is essentially conducted by means of measurement and interpretation (Babbie, 2004), and can be broadly divided into hard/physical/natural science and soft/human/social science. As distinct from natural sciences that deal with aspects of the physical world (such as blood, rocks, and plants), social science is study aiming to observe and understand the social life of people by investigating human beliefs, behaviour, interaction and institutions (Neuman, 2006).

4.2.1 Factors that influence social research

Elements of the social research process (e.g. formulation of research questions, research design and method, data collection techniques, selection of the research area, how to implement data collection and data analysis), are influenced by several factors. Among them are theory, epistemology, and researcher’s values (Bryman, 2008).

Theory

Theory is “a set of logically interrelated propositions, presented in a systematic way, (that describes and explains) social phenomena” (Sarantakos, 1993, p. 10); for example concepts such as ‘sustainability’ and ‘development’ are part of theory. Thus, concepts are founded on words that define experiences, events, and relationships (Sarantakos, 1993).

Theory is important to social research in that it provides a template for understanding and interpreting research findings. There are two essential questions about
the relationship between theory and research. The first is what kind of theory is more likely to be useful as a guide for social research, and the second is whether the purpose of data collection is to test or to build theories (Bryman, 2008).

In relation to the first question, theory can be categorised into two main types, ‘grand’ and ‘middle range’ theories. Grand theories, such as structural-functionalism and post-structuralism, provide a more abstract and general explanation than middle range theories. Therefore grand theories are rarely used to guide the application of social research due to the difficulty of connecting the level of abstraction to empirical inquiries (Merton, 1967 cited in Bryman, 2008).

In dealing with the question of whether data collection is to test or to build theories, one must consider that theory can be deductively or inductively derived. The deductive process begins with a theoretical proposition, followed by the building of logical relationships into a hypothesis. Concepts to be translated into operational terms are included in the hypothesis, to provide empirical evidence for confirming or rejecting it (Bryman, 2008). In the inductive theory process, theory is an intended outcome of the research. This approach begins with observations followed by the drawing of generalised inferences in order to develop theory. Even though the creation of deductive and inductive theories is different processes with different aims, it is possible to combine them iteratively (Bryman, 2008).

This research was informed by several grand theories (e.g. neo-liberalism, global governance) as well as several middle range theories (e.g. peasant rationality, agroforestry). When combined they acted as a guide for constructing my research questions and creating templates to interpret and analyse results. In this research, theories were used mainly in a deductive way, in that they were presented initially to guide or loosely frame the research; however this research was's not aimed at testing these prior theories. Instead, it examines the practice of NGOs in their farm forestry programs, and whether it could be extended to develop a new body of knowledge. More explanation of how theory is used in this research is presented in Sub-Section 4.4.1, below.
Epistemological considerations

Epistemology refers to what is accepted as knowledge. The two main epistemological positions in research are *positivism* and *interpretivism* (Bryman, 2008). Neuman (2006) classed both as approaches suitable for social research and added *critical social science*. Of the three epistemological schools of thought, positivism is used most widely (Sarantakos, 1993).

Positivism is an approach that prefers to apply the methods of the natural sciences to social study. Positivists hold the principle that accepts certain phenomena as knowledge if they are confirmed by the human senses (Bryman, 2008; Neuman, 2006; Wignjosoebroto, 2001). Therefore, positivism focuses more on empirical than symbolic reality, believing that science should be objective or value free (Neuman, 2006; Wignjosoebroto, 2001). Quantitative research is usually framed within a positivist paradigm seeking to describe or explain social phenomena, especially focusing on causality among variables (Faisal, 2001; Neuman, 2006), and often examines phenomena based on numerical data (Sarantakos, 1993), statistical data, and quantifiable patterns (Veal, 1997).

In contrast to positivism, interpretivism views people and their institutions as a different kind of subject matter than that observed and analysed by natural science. Interpretivism agrees with the phenomenologist view that people’s actions are based on the way they interpret their world. Therefore, a person’s interpretation of the social world must be understood in order to seek the meaning of that person’s behaviour or social action. The major influences affecting interpretivism are the hermeneutic-phenomenological tradition; Weber’s notion of *verstehen* is perhaps best explained as symbolic interactionism (Bryman, 2008; Neuman, 2006). The other influence on interpretivism comes from symbolic interactionism (Bryman, 2008), which views human life as being full of symbols that convey meanings (Wignjosoebroto, 2001). In their interaction with others, individuals continually interpret the symbolic meaning of their past actions, actions of others and their environment then behave accordingly (Bryman, 2008).

In brief, interpretivism requires the social researcher to analyse a person’s interpretations of their action, actions of others and their environment to understand social phenomena. Then researchers link their own interpretation to the relevant concepts,
theories and literature (Bryman, 2008). Critical social science is a process that tries to reveal hidden multiple layers of social reality in order to encourage people to correct existing conditions to reform society (Neuman, 2006). Qualitative research usually chooses interpretivism as a way to understand social phenomena from the meanings inside human beings, especially when focusing on reasons for social actions (Neuman, 2006) and to understand social phenomena from the meanings inside human beings (Faisal, 2001). Qualitative research is compatible with the goal of critical social science, which seeks to reveal hidden phenomena and to empower people through an activist orientation (Neuman, 2006).

This research considers that peasants and NGOs are subjects within the social sciences instead of objects of natural science. Therefore, for epistemological reasons, I adopted an interpretivism approach for this research. It enabled me to interpret how peasants perceive their goals and interests, what they consider their livelihood limitations to be, and how they propose to solve them. The interpretivist approach also allowed me to clarify the behaviour of NGOs in promoting farm forestry by investigating how the organisations understand their position, roles, goals and limitations. This approach allowed me to link my interpretation of the peasants, NGOs and other key informants to the relevant concepts, theories and literature. Since the research aims at understanding social phenomena by revealing the connection of individuals’ views to their actions, qualitative research is more appropriate than quantitative research.

**Researcher’s values**

Values are derived from personal belief or, in this case, the researcher’s conviction about something. A researcher’s values can be reflected in personal bias that influences each step in the process of social research. Although ideally a valid and scientific study should be value-free, indeed it appears to be impossible to avoid personal bias affecting all scientific research in some way. Nowadays there is greater recognition that personal bias can influence the research process, with researchers designing strategies that minimise the extent such bias influences their results (Bryman, 2008).
4.3 Case studies to ground research

As with all disciplines of scientific inquiry, method in social research has its advantages and disadvantages. Because of its distinctive nature, and despite its limitations, the case study was perceived as the best method for this research. Before deciding to use this method, it was necessary to compare the strength and weaknesses of the case study to those of other methods.

4.3.1 Comparing social research methods

Differentiation of the research methods should not be based on a simplistic appraisal, which can cause misconceptions about their essential features. For instance, case studies are not identical to exploratory researches, nor are surveys and life histories always used for descriptive purposes. Moreover, experiments are not the only method of explaining causal relationships. Every research method including the case study can be used for exploratory, descriptive, and explanatory purposes (Eisenhardt, 1989; Yin, 2009).

The case study method is different from other research methods (e.g. the experiment, historical analysis and survey) in that it aims to examine a complex social phenomenon with regard to the connection between the phenomenon and its context. Therefore, as there are many variables to be studied and multiple sources of evidence, the use of triangulation in data analysis becomes a necessity. It is also important to develop theoretical propositions before conducting a case study, as a guide for data collection and analysis (Yin, 2009). A case study allows researchers to examine a real-life phenomenon in-depth in such a way that the phenomenon and its context are richly understood and viewed as interlinked. In contrast, an experiment deliberately controls the context by separating a phenomenon from its context, and simplifies the context to limit the variables operating within it (Yin, 2009). While a historical analysis does not try to separate the phenomenon from its context, it prefers to examine non-contemporary phenomena using historical data (McCutcheon & Meredith, 1993; Yin, 2009). Similarly, a survey as a method does not try to separate a phenomenon from its context, but nevertheless limits the variables to be analysed. Consequently, it is less able to examine the context (Yin, 2009).
Even though the boundaries between the methods are not always firm, and their characteristics are often overlapping, there are three conditions that distinguish the case study from other methods. These are:

- The type of research question being posed (Yin, 2009);
- The extent of control over actual behavioural events by a researcher (Fidel, 1984; Yin, 2009); and
- The degree of focus on contemporary events as opposed to historical events (McCutcheon & Meredith, 1993; Yin, 2009).

The differences between the case study and other methods are illustrated in Table 4.1, below.

**Table 4.1: Different research methods**

<table>
<thead>
<tr>
<th>METHOD</th>
<th>Type of Research Questions</th>
<th>Control over Behaviour</th>
<th>Focus on Contemporary Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment</td>
<td>How, Why?</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Survey</td>
<td>Who, What, Where, How many, How much?</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Archival Analysis</td>
<td>Who, What, Where, How many, How much?</td>
<td>No</td>
<td>Yes/ No</td>
</tr>
<tr>
<td>Historical Analysis</td>
<td>How, Why?</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Case Study</td>
<td>How, Why?</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*Source: Yin (2009).*

Even though all the questions (in the above table) can be addressed by multiple methods, some questions can be more thoroughly examined by certain methods. For instance, the ‘what’ question in an exploratory study can be answered through a *survey*, *experiment*, or *case study*, but the ‘what’ question that is related to prevalence (i.e. ‘how many’ and ‘how much’) is likely to be better answered by the *survey* method or *archival analysis*, rather than other methods (Yin, 2009).

Moreover, ‘how’ and ‘why’ questions are more easily addressed by *case study*, *experiment*, or *historical analysis*. The distinction between these methods here relies on the second condition in the table above. *Experiment* differs from both *case study* and *historical analysis* in the degree of control over actual behaviour exerted by the researcher. This process is conducted well when a researcher can isolate the variables from external factors.
by manipulating or controlling behaviours directly and systematically (Yin, 2009). In contrast, both the case study and historical analysis methods provide better results when there is no such control over behaviour (Fidel, 1984; Yin, 2009).

The historical analysis can be distinguished from the case study as it is applied to ‘dead’ past phenomena, while the case study prefers to focus on contemporary events; nonetheless historical analysis can be used to examine contemporary events. In this sense it is possible for the case study and historical analysis to overlap in examining contemporary events. However, the case study can be distinguished from historical analysis because of its ability to use direct observation and interviews as sources of evidence (McCutcheon & Meredith, 1993; Yin, 2009).

In summary, while the various methods mentioned above are not mutually exclusive, the case study method is likely to be the best choice if a researcher wants to ask ‘how’ and ‘why’ about contemporary real-world events, where there is no (or minimal) control of them by the researcher. The use of the case study method is supported by Yin (2009, p. 4) who said it “allows investigators to retain the holistic and meaningful characteristics of real-life events, such as individual life cycles, small group behaviour, organisational and managerial processes, neighbourhood change, school performance, international relations, and the maturation of industries”.

**Reason for choosing the case study method for this research**

To gain a thorough understanding, this research prioritised ‘how’ and ‘why’ questions that are effectively addressed through a case study. In view of its characteristics, the case study method was chosen for this research because it enabled me to make a holistic and in-depth investigation of the dynamics of the two selected NGOs in implementing their respective community forestry programs. The case study method also allowed me to deeply understand the views of peasants regarding the programs, their livelihood strategies/agroforestry practice (including reasons for planting and harvesting trees); as well as the opportunities and limitations regarding benefits flowing from the NGO-led community forestry.
In addition, the case study method enabled me to delimit this research, as it helped in framing and defining the scope of this research in terms of the geographical, social, economic, and policy boundaries. The selection criteria for the case studies used will be described in more detail in the next section.

4.4 Designing the case study

In research design, it is important to distinguish between the theories that inform the research and the specific questions that guide data collection to allow independent conclusions to be drawn. There are several important steps in designing research based on a case study method, without which the research is unlikely to provide valid findings:

1. Construction of preliminary theory related to the topic for study;
2. Choice of appropriate questions that are suited to the research topic and method to be used;
3. Decision on the number of cases to be examined in the case study and selection criteria for them;
4. Definition of the unit(s) of analysis, including sub-units, if any;
5. Choice of appropriate strategies for sampling design, data collection and data analysis; and
6. Concentration on validity and reliability during the whole process of the research (Yin, 1994, 2009).

4.4.1 Preliminary theory and propositions

For this research, some literature reviews and theory development were conducted before data collection as a foundation for it. Other theoretical propositions were developed later in the research process to assist data analysis. According to Eisenhardt (1989), a case study can be conducted to develop a new theory, meaning that preliminary theory development (including theoretical propositions) is not necessary, and may even limit the exploration process for constructing new theory. However, in this research, the initial theory development, including theoretical propositions, is essential before data collection, because its aim is not to develop new theory; nor is this approach like ethnography or grounded
theory that avoids developing specific theories and propositions before the collection of data (Meyer, 2001; Yin, 2009).

The roles of preliminary theory development in this case study were to guide the determination of research focus, and the strategy for data collection and analysis. It enabled me to decide what kind of phenomenon would be examined and in what way. It also helped me to choose where and how to find relevant evidence (Yin, 2009). Theory development is also closely related to analytic generalisation in this case study since “a well-developed theory explains how something operates in general ... and it enables one to move beyond the finding of any single research study” (Johnson and Christensen, 2004, p. 19). The process of analytical generalisation enable me to generalise research findings to theory (Yin, 2009, p. 38), which could then become the vehicle for examining other similar cases. My reason for using analytic generalisation instead of statistical generalisation in this research will be explained in Sub-Section 4.4.9 below.

4.4.2 Research issues and key questions

Before deciding on a research focus and developing appropriate questions, I reviewed some related literature and previous studies to find research gaps. Even though the purpose of a case study can be exploratory, descriptive or explanatory, in this research the ‘how’ and ‘why’ questions are likely to be necessary. They are directed towards the ‘gap’ concerning the failure of post-Suharto forest management policy to achieve its aims of promoting community forestry. Non-government organisations (NGOs) are an important player in shaping Indonesian forest policy and practices, particularly in relation to enhancing benefits from forestry for rural communities. However, it is not always clear how these organisations can enhance community-based forestry most effectively, so that it improves people’s livelihood and participation level as well as forest sustainability.

The main concern of this research is how to optimise the contribution of NGOs to developing farm forestry in Indonesia. Its inquiry examines several questions:

1. To what extent do the approaches of the selected NGOs towards developing farm forestry meet with peasants’ livelihood strategies?
How do the two selected NGOs view opportunities to enhance benefits for the peasants from plantation program and timber enterprise development programs initiated by them?

How do the two selected NGOs perceive their limitations or challenges in realising the goals of their programs?

How do peasants perceive their opportunities and limitations in implementing, and benefiting from these programs?

2. To what extent do the selected NGO-led approaches to farm forestry improve participation levels and address poverty, deforestation and lack of timber supply?

How do the two selected NGOs implement their program, especially in encouraging the peasants to participate in the farm forestry programs?

To what extent do the NGOs’ programs deliver changes in terms of addressing poverty, deforestation and lack of timber supply?

Who has received benefits from the farm forestry programs, who is missing out on benefits from them, and what are the benefits being provided?

3. What are the challenges faced by the selected NGOs in implementing their approaches to farm forestry?

4.4.3 Number of cases: a single-case study or multiple-case studies?

After choosing a case study as the research method, it is important to decide whether a single-case study or multiple-case studies is to be used to answer the research questions. Single or multiple-case studies have advantages and disadvantages, and are appropriate for different conditions. For several reasons, I preferred to conduct multiple-case studies rather than a single-case study in this research, as it enabled me to gain deeper understanding of the chosen social phenomenon (Zach, 2006) and to derive more extensive analytic conclusions (Yin, 2009). Multiple-case studies allowed me to produce a literal replication if the selected cases provided similar findings. It also created the possibility of seeking a theoretical replication if the selected cases show contrasting results in the manner predicted before selecting the cases. The replication procedures are important in
developing a theoretical framework that can be used for generalising about new cases. Therefore, the multiple-case studies can provide more analytic benefits and stronger conclusions than the single-case study (Yin, 2009).

### 4.4.4 Sampling design

In social research, there are two types of sampling design: probability and purposive sampling design. However there are other types categorised as convenience and mixed methods. Convenience sampling is a method of selecting samples whose participants are accessible and voluntarily take part in the research (Neyman, 1934; Onwuegbuzie & Collins, 2007; Teddlie & Yu, 2007). In probability sampling design, samplings are selected to achieve representativeness of a population. By contrast, purposive sampling design is based on specific purposes for selecting units (comprised of individuals, groups and/or institutions) that are related to research questions and objectives (Onwuegbuzie & Collins, 2007; Teddlie & Yu, 2007).

This research did not seek to generate statistically significant data to generalise to the wider population. Instead, it sought to yield a deep understanding of two selected NGOs with a strong focus on farm forestry programs. Therefore, I used ‘purposive sampling design’ in selecting research sites, NGOs and key interviewees by deciding the purpose I required informants to serve. The comparison between purposive and probability sampling designs is illustrated in Table 4.2, below.

The purposes for selecting NGOs were that they had conducted community forestry programs on private land that engaged rural communities in order to raise the living standard of local people; or to rehabilitate land and/or to enhance the supply of sustainable timber. Based on these criteria, the selected NGOs were Trees-4-Trees and PERSEPSI. Further explanation of the selection of research sites and related NGOs is given in Sub-Section 4.4.5 below.
Table 4.2: Comparison between purposive and probability sampling designs

<table>
<thead>
<tr>
<th>Point of Comparison</th>
<th>Purposive Sampling</th>
<th>Probability Sampling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative names</td>
<td>Purposeful sampling</td>
<td>Random sampling</td>
</tr>
<tr>
<td></td>
<td>Qualitative sampling</td>
<td>Quantitative sampling</td>
</tr>
<tr>
<td>Overall purpose of sampling</td>
<td>Designed to generate a sample that will address research questions.</td>
<td>Designed to generate a sample that will address research questions.</td>
</tr>
<tr>
<td>Issue of generalisability</td>
<td>Sometimes seeks a form of generalisability (transferability).</td>
<td>Seeks a form of generalisability (external validity).</td>
</tr>
<tr>
<td>Rationale for selecting cases/ units</td>
<td>To address specific purposes related to research questions. The researcher selects cases she or he can learn the most from.</td>
<td>Representativeness. The researcher selects cases that are collectively representative of a population.</td>
</tr>
<tr>
<td>Sample size</td>
<td>Typically small (usually 30 cases or less).</td>
<td>Large enough to establish representativeness (usually at least 50 units).</td>
</tr>
<tr>
<td>Depth / breadth of information per case/unit</td>
<td>Focuses on depth of information generated by the cases.</td>
<td>Focuses on breadth of information generated by the sampling units.</td>
</tr>
<tr>
<td>When the sample is selected</td>
<td>Before the study begins, during study, or both.</td>
<td>Before the study begins.</td>
</tr>
<tr>
<td>How selection is made</td>
<td>Utilises expert judgment.</td>
<td>Often based on application of mathematical formulae.</td>
</tr>
<tr>
<td>Sampling frame</td>
<td>Informal sampling frame somewhat larger than sample.</td>
<td>Formal sampling frame typically much larger than sample.</td>
</tr>
<tr>
<td>Form of data generated</td>
<td>Focuses on narrative data</td>
<td>Focuses on numeric data</td>
</tr>
<tr>
<td></td>
<td>Numeric data can also be generated.</td>
<td>Narrative data can also be generated.</td>
</tr>
</tbody>
</table>

Source: Adapted from Teddlie and Yu (2007, pp. 84).

The selection of case study sites for this research was conducted after identifying the two NGOs. The main criteria for selecting case study sites was appropriateness for the research and accessibility for the researcher. The selected villages (Bageng Village and Selopuro Village) were selected for this research for several reasons:

- Bageng Village is where Trees-4-Trees has been playing an active role in farm forestry on private land, while Selopuro Village is where PERSEPSI has been playing an active role -- also in farm forestry on private land;
- Both villages demonstrate similarities and contrast in their operational environment that make them suitable for comparison and form a basis for useful conclusion;
- Farm forestry was advocated at the villages (due to poverty pressures);
- Rural communities there were engaged in farm forestry;
- The situation there has relevance to other parts of Indonesia and so can inform farm forestry development elsewhere; and
Due to limited time and research funding, it was desirable that the selected villages were relatively close to each other.

I also used purposive sampling design in selecting key informants as interviewees. Key informants are people who know what is going on in their community, so they can explain their beliefs, attitude, behaviour and actions as well as events due to their involvement in and knowledge of an area (Jacob, Bourke, & Luloff, 1997; Luloff, Bourke, Jacob, & Seshan, 1995). They are selected to enable collection of information from a wide range of people – including community leaders, professionals, and residents – who have the necessary firsthand knowledge, so they can provide insight into the nature of problems and make recommendations for solutions (UCLA, 2012). Some of the key informants were found during interviews, as interviewees often suggested a certain person to be contacted and interviewed regarding certain issues. The process of contacting and selecting key informants was conducted until there were no more new insights to be gathered (Elmendorf & Luloff, 2001).

Therefore, I selected actors whose interests, roles, information and/or authority could produce a wide variety of perceptions about the NGOs’ programs and the dealings of these organisations with other actors in the programs (Dewuf et al., 2005; Long, 2002). In total, I selected 75 key informants for in-depth interviews. Regarding the staff members of NGOs, I selected those who are or have been directly in charge of conducting the NGO programs from the initial stages to the present. Such informants could provide detailed information about the planning, implementation and recent operations of the community forestry programs. I interviewed four staff members of Trees-4-Trees and three from PERSEPSI. I selected a field coordinator from Trees-4-Trees, who is regarded as the most active official in implementing the program, so he could give as much information as possible about its activities.

In relation to the forestry service, I interviewed four officers who are or were in charge of implementing government plantation programs at the selected research sites (Bageng Village and Selopuro Village). To obtain rich information about the NGOs’ programs and local conditions, various peasants were also chosen as interviewees. I selected those who have been both participants and non-participants in the NGO programs.
They included the elite and non-elite, men and women, peasants who have land access and landless peasants. In Bageng Village, 34 peasants were interviewed, of which 23 were members of the Trees-4-Trees program, one was a participant in Trees-4-Trees, and 10 were non-members. In Selopuro Village, 31 peasants were interviewed. I also consulted an NGO expert who could provide information about the potential and limitations of NGOs. Moreover, I interviewed an owner of a furniture factory who could explain the relationship between the factory and the relevant NGO.

4.4.5 Two case studies in this research

Initially, I had planned to investigate two different types of NGO (service delivery and advocacy), expecting to obtain more comprehensive data about the roles of NGOs in community forestry. I hoped to use this data to provide a theoretical framework that could be applied to different types of NGOs operating in Indonesia and other regions. Service-delivery NGOs are those that focus more on delivering benefits from, and empowering people to participate in, the development process. Advocacy NGOs are those that try to influence government policy and shape the existing social, economic, or political system (Yaziji & Doh, 2009). This research planned to investigate the roles of Trees-4-Trees and WALHI. While they share a concern for community forestry, these organisations have different visions and approaches. Trees-4-Trees adopts a socio-economic approach that seeks to raise the living standard of local people, and enhance the supply of sustainable timber. In contrast, WALHI conducts socio-ecological campaigns to: realise a fair and democratic social, economic and political structure; to advocate for the rights of civil society regarding natural resources; and to address environmental issues.

Unfortunately, due to natural disasters in Central Java (a volcanic eruption, earthquakes), WALHI was more focused on supporting people affected by them at the time, so had not been conducting community forestry programs in Central Java. As a result, before starting the fieldwork, I changed the plan and decided to only investigate Trees-4-Trees. However, during the fieldwork, I received information about another NGO called PERSEPSI that assisted peasants in Central Java in developing small-scale timber enterprises through a forest certification program.
The interesting fact is, even though Trees-4-Trees and PERSEPSI operated as service delivery NGOs through their programs in Central Java, there are several points of comparison that might provide rich data about the dynamic of NGOs’ roles in community forestry. The target area of Trees-4-Trees (Bageng Village in Pati District) is relatively fertile, whereas that of PERSEPSI (Selopuro Village in Wonogiri District) has an infertile terrain consisting of limestone. Also, peasants in Bageng Village have more access to fertile agriculture lands and options to plant diverse crop species. By comparison, peasants in Selopuro Village have less access to such lands, so they have less choice of crop species to cultivate.

Moreover, peasants in Bageng Village prioritise agricultural crops (e.g. rice, beans, cassava, and maize) and estate crop (e.g. sugar cane, coffee, coconuts) over the cultivation of trees for timber. However, peasants in Selopuro Village prefer to plant high-value trees (e.g. teak, mahogany) in their rocky terrain, since agricultural crops do not grow well there.

**Figure 4.1:** Research sites: Bageng Village-Pati District and Selopuro Village-Wonogiri District
These two NGOs work at different stages of community forestry. Trees-4-Trees in its plantation program works at the initial stage of community forestry development by encouraging the peasants in Bageng Village to grow trees. By contrast, when PERSEPSI came to Selopuro Village, farm forestry was already being practiced there, as peasants in Selopuro Village have grown trees for 40 to 50 years. PERSEPSI’s forest certification program was designed to assist the peasants to gain forest certification, and included fostering their forest enterprises. Trees-4-Trees has implemented its program in Bageng Village since 2008, while PERSEPSI completed its forest certification program in Selopuro Village in 2004.

Case study 1: Trees-4-Trees in Bageng Village

Trees-4-Trees
The initial idea for establishing Trees-4-Trees came from furniture manufacturers and exporters in Indonesia. Due to considerations related to the higher price of and complicated procedures to buy certified timber, they were motivated to find a short-cut process for supplying overseas demand for ‘green’ timber products. They decided to establish a non-profit foundation that could supply green hang-tags for their exported products.

For every shipment of exported furniture products, these manufacturers make a financial contribution to Trees-4-Trees, who then gives them a green hang-tag for every item of furniture in return. Trees-4-Trees allocates the money it receives from manufacturers to the planting program that is located at its project sites in Central Java. Manufacturers and retail participants provide funds for the plantation activities of Trees-4-Trees aimed at the replacement of trees used in their products. Trees-4-Trees place GPS details of the tree planting locations on their hang-tags. Thus the end-users of this furniture can check where and by whom the trees were grown, and how many have been planted to replace timber used for the items they have bought. Any manufacturers, exporters or retailers in Indonesia can be participants of Trees-4-Trees, and use its green label if they make contributions to the planting program and agree to follow its guidelines on procedures, ethics, and wood sourcing.
The goals of Trees-4-Trees are: promoting sustainable forest management and reducing poverty in rural areas, especially in developing countries, through community based forestry; increasing knowledge and skills among tree growers so as to develop assets and provide benefits for them; improving the environment; and producing high value timber for sustainable utilisation in business. To realise its goals, the organisation provides a plantation program for helping peasants to plant trees, reforest their land, and sell timber products to responsible manufacturers and retailers. It provides free seedlings to peasants and resident landowners, along with technical guidance on planting and long-term monitoring. To raise awareness of the environmental and economic benefits of growing healthy trees, Trees-4-Trees has been conducting educational programs in local communities and schools. The plantation program is expected not only to empower local communities, but also to reduce the negative effects of deforestation and renew the environment. From 2008 to 2011, it planted over 677,298 trees. Through its program it tries to benefit both the environment and the stakeholders involved such as peasants, manufacturers, retailers, and consumers (Trees-4-Trees, 2008).

In empowering peasants through partnership reforestation initiatives and the related education program, Trees-4-Trees works with 3,871 tree growers in 14 districts of Central Java whose forest plantation covers about 3,863 hectares (Trees-4-Trees, 2008). Until now Trees-4-Trees has only operated in Central Java. In the future, however, it intends to implement its program in other locations in Indonesia as well as abroad. Further information about Trees-4-Trees (e.g. its achievements, participants, and program in Bageng Village) will be given in Appendix A5 and Chapter 5 (research results).

**Bageng Village**

Of the 14 districts from Trees-4-Trees’ target areas, Pati District is perceived by the organisation’s officials as that which hosts the most comprehensive activities (i.e. planting, maintenance and harvesting). In Pati District there are eight Field Coordinators/ FCs who assist peasants in 40 villages from among which each FC can choose more than one target area (TA). According to the Trees-4-Trees officials there is a field coordinator (assisting peasants in Gembong Sub-District, Pati District) who is the most active FC and has been managing Gembong Target Area. This area covers five villages, namely: Bageng, Gembong, Plukaran, Ketanggan and Klakah kasihan. Of these five villages, only Bageng
Village has been a member of Trees-4-Trees, the remainder being participants. Members of Trees-4-Trees sign an MOU with the organisation and agree to be assisted by it, and follow its planting and maintenance procedures. However, there is no obligation for members to sell their timber through Trees-4-Trees. As members they can choose their level of involvement (e.g. from planting through until harvesting, or only maintenance and harvesting). Participants of Trees-4-Trees do not have to sign an MOU. They only receive its tree seedlings and plant them without its assistance; they then maintain and harvest the trees themselves. Based on these facts, I decided to choose Bageng Village as a research site since I expected to gather more data about the role of Trees-4-Trees there.

Located on the slopes of Muria Mountain, Bageng Village is one of 11 villages in the Gembong Sub-District of Pati District, Central Java. It is located 380 metres above sea level on terrain consisting of latosol soil. With total rainfall of 2,204 millimetres per year and fertile soil, the area is suitable for agricultural and estate crops (BPS-Pati, 2010). With these altitude and soil conditions, Bageng Village can produce quality large seedless sweet oranges called ‘honey oranges’ that have won horticultural prizes at national level. The orange can also be grown in other places but will be of poorer quality.

The land area of Bageng Village is 663 hectares and consists of about 20 hectares of wetlands (paddy field) and 642 hectares of dry lands. The latter area comprises 124 hectares of house compounds and their surroundings, 378 hectares of agricultural land (cassava, maize, and beans), about 130 hectares of estate crops (coffee, cotton trees, sugar cane, oranges, and coconuts) and another 9 hectares (BPS-Pati, 2010). Bageng Village like other villages in Gembong District has a high potential for erosion, because of its location on the slopes of Muria Mountain which have a gradient of about 30°. This tendency has worsened because the main land use in the area is agricultural cropping. Pictures of Bageng Village are given in Appendix A3.
Case 2: PERSEPSI in Selopuro Village

PERSEPSI

PERSEPSI (Association for Economic and Social Study and Development/ Perhimpunan untuk Studi dan Pengembangan Ekonomi dan Sosial) used to be one of LP3ES’s (Lembaga Penelitian, Pendidikan dan Penerangan Ekonomi dan Sosial) program activities in Klaten District, Central Java, from 1979 to 1984. Then it became a branch office of LP3ES in that district from 1989 to 1992, and was separated from LP3ES as an independent institution in 1993. The head office of PERSEPSI is in Klaten District, while it has branch offices in Tulung Agung (East Java) and Wonogiri (Central Java). The organisation has a value orientation towards justice, freedom, democracy, equality, and solidarity. It also has a fundamental principle of participation which centres on respecting human rights, rational partiality, diversity, self-reliance, fraternity, transparency, accountability, and environmental awareness.

PERSEPSI’s vision has many aspects, including the social, economic, political and environmental. Its vision is creating social capital and promoting wealth-sharing based on democracy, and gender justice, as well as respect for human rights and the environment. According to its vision, PERSEPSI is not only a service provider but also an advocacy NGO. Guiding its efforts, PERSEPSI’s missions are:

- Realising social norms based on gender justice and local resources;
- Strengthening access to and social control of political, economic, and cultural resources;
- Advancing consciousness about the role of civil society through critical education and advocacy; and
- Improving social awareness of environmental management.

On separating from LP3ES in 1993, PERSEPSI underwent some changes. The program has broadened from focusing only on livelihood enhancement to including an environmental perspective, as well as gender, democracy and human rights issues. Membership of PERSEPSI has expanded to include anyone who is interested in community empowerment.
The main programs carried out by PERSEPSI are: first, facilitating social movements to alleviate poverty by creating dynamic groups; second, fostering small-medium enterprises/SMEs development through the reform of cooperatives, training activities, productivity enhancement, financial services and marketing to fight unemployment and poverty; third, encouraging social initiatives for the protection of the environment, dry land farming and sustainable forest management in the river-bed and critical lands; fourth, advocating for marginal groups and women to increase awareness of their rights and interests; and fifth, being a consultant for programs or activities performed by other organisations. PERSEPSI programs could be applied anywhere in Indonesia but due to limited organisational capacity, they only operate in three provinces: Yogyakarta, East Java (all districts), and Central Java (Wonogiri, Klaten, Sukoharjo, Sragen, Kudus, and Temanggung Districts). This year (2011) its program area will be expanded to West Nusa Tenggara and Lampung. More explanation of PERSEPSI will be given in Appendix A6 and Chapter 5 (research results).

**Selopuro Village**

PERSEPSI has assisted eight villages/Forest Management Units/FMUs to gain Forest Certification of Sustainable Forest Management along with timber enterprise development since 2004. Of six villages assisted by PERSEPSI to receive forest certification, I chose Selopuro as a research site since it was the first of these villages to receive forest certification. By investigating the area where PERSEPSI’s program has been implemented longest, I hoped to observe more significant changes or outcomes due to its operation than could be seen in an area where the program had just been implemented.

Selopuro Village is one of eight villages in Baturetno Sub-District, Wonogiri District, Central Java. The eight villages are located in the hilly limestone areas that extends along the south coast of Java Island, from Kebumen District (Central Java) to Blitar District (East Java). With annual precipitation of 1,538 millimetres per year and no rain during the dry season (May to October), Selopuro is one of the arid locations with poor soil and recurrent water shortages to be found in Southern Java. The soil mostly consists of limestone and is less fertile than that in other areas of Java. Even though soil is to be found in some parts of the village, it is relatively thin with a layer of limestone underneath (BPS-Wonogiri, 2010). At an altitude of 290 metres above sea level, Selopuro
Village is now covered with teak and mahogany forest. Its total land area is 708 hectares, of which only 70 hectares is used as arable dry land farming or non-irrigated paddy fields. The remaining 638 hectare area consists of house compounds and their surroundings or home gardens (92 hectares), agricultural land (251 hectares), forest (240 hectares) and other lands (55 hectares) (BPS-Wonogiri, 2010). Pictures of Selopuro Village are given in Appendix A4.

4.4.6 Unit(s) of analysis

A unit of analysis can be understood in terms of ‘what the case is about’, and is closely related to the primary research questions and propositions. Research questions and propositions will narrow the application of the unit of analysis to fit the intended focus of the research. Incorrect identification of the unit of analysis will result in lack of correlation between research questions and findings (Yin, 2009).

A unit of analysis can be individual(s), group(s), organisation(s), and events or entities such as decisions, programs, implementation processes, and organisational change. Instead of being an abstraction (e.g. a topic, arguments or hypotheses), a unit of analysis should be a real-life phenomena that is more concrete than abstract. Definition of a unit of analysis should be followed by clarification of its spatial, temporal and other boundaries that will help to limit the scope of data collection and differentiate the phenomenon from its context (Yin, 2009).

This research employs multiple-case studies approach with an embedded design in which each case has more than one unit of analysis, namely:

- Peasants: leader and members of peasant groups, landless peasants, and those who are not involved and/or used to be involved in peasant groups;
- The opinion of peasants regarding the NGOs’ programs;
- Peasants’ agroforestry practices and livelihood strategies;
- Trees-4-Trees’ officials, its field coordinator and PERSEPSI officers;
- How Trees-4-Trees and PERSEPSI play a role in farm forestry and the degree of participation by local people in it;
The outcomes of the farm forestry program that is supported by Trees-4-Trees and PERSEPSI;
The opinion of NGO observer regarding the potential and limitations of NGOs;
The opinions of manufacturers about their experience of supporting Trees-4-Trees; and
Government officials from the forestry service/ Dinas Kehutanan (at provincial and district level) in Pati and Wonogiri District and their views of the NGO programs in these areas.

4.4.7 Data collection: multiple sources of evidence and data triangulation

An important advantage of the case study is that it allows the use of more varied sources of evidence (Eisenhardt, 1989; Fidel, 1984; McCutcheon & Meredith, 1993; Yin, 2009) than do other research methods. Using multiple sources of evidence in a case study is beneficial, not only for addressing historical and behavioural issues, but also for developing converging lines of inquiry or corroboration of evidence through data triangulation. The main advantage for this research in using them is the opportunity to triangulate the data collected. Data triangulation is a process that uses multiple sources of evidence to support converging lines of inquiry; it can enhance construct validity because it provides multiple measures to examine the same phenomena (Yin, 2009).

This research undertook data triangulation by using the multiple sources of evidence to thoroughly examine every research question, despite this method being expensive and time-consuming. It required the application of knowledge and skill so that complex data collection techniques could be conducted properly. Multiple sources of evidence that are triangulated in this research are:

- **Interviews:**
  There are three types of case-study interview, namely the in-depth interview, focused interview and survey. An in-depth interview is intensive and open-ended, not merely following a certain set of questions to gain the insight of key informants about facts or events. A focused interview is less intensive, but is still open-ended, being conducted by means of a set of case study questions rather than broader
discussion topics. The survey is even more structured in its use of questions (Elmendorf & Luloff, 2001; Yin, 2009).

In-depth interviews were the main source of primary data for this research because they can provide information about people’s insights into affairs or events, and even historical experiences. However, the disadvantage of such an interview is interpersonal influence, such as that of informants over the researcher or vice versa, causing the information to become less accurate or reflect bias. Therefore, it is important to check the interview results using corroborating or contrary evidence from other sources (Yin, 2009). For this research, I conducted in-depth interviews with several key informants that were selected purposefully and based on the issue involved (Elmendorf & Luloff, 2001). Interview and observation guide for interviewees is given in Appendix A2.

Regarding the key informants, interviews were semi-structured with open-ended questions to encourage the interviewees to suggest lines of inquiry. Some were based on a written list of questions used as an interview guide. Ethical procedures were followed by informing the interviewees beforehand about voluntariness, confidentiality, and approvals for recording and publishing the interviews. They were conducted informally or in a flexible but still ordered manner (Dunn, 2005) by initially raising the most interesting issue from the key informants’ points of view. I then gave an opportunity for respondents to describe their ‘story’ while checking the completeness of the information according to the list of questions. Then I asked the questions that were not answered by interviewees in their ‘story telling’. To examine the livelihood of peasants’ households, I also used closed-ended questions for the peasants. Household is “All persons living under one roof or occupying a separate housing unit, having either direct access to the outside (or to a public area) or a separate cooking facility. Where the members of a household are related by blood or law, they constitute a family” (Business Dictionary, 2015)
• **Documentation:**
  Documents can take the form of personal documents, written reports of events, internal records, formal studies or evaluations of a case, and media reports. They can be valuable for data collection in a case study because they can provide exact and detailed information about names and events, can be reviewed repeatedly, are unobtrusive and thus provide opportunities to make inferences. However, they are not always accurate, can reflect bias from their authors, and can be difficult to access (Yin, 2009).

  Documentation was collected for this research to supply secondary data about Trees-4-Trees and PERSEPSI as organisations, the programs that have been initiated by them, and the impacts of the programs on local people. The documents included quarterly or annual reports of Trees-4-Trees and PERSEPSI, as well as monitoring and evaluation reports of their programs. From those documents, only information that was relevant to this research was selected as secondary data.

• **Archival records:**
  Archival records include ‘public use files’ or data made available by federal, state and local governments for public use, service records, organisational records, maps or charts of geographical characteristics of a certain place, and previous surveys of the research sites. These records can be highly quantitative but may not always provide accurate information for a case study, because the purpose of establishing the records, and their target audience, may be different from those of the case study (Yin, 2009). Archival records contained valuable information for this research, especially regarding the social, economic and political contexts in which the two selected NGOs operate. The archival records that were used as sources of data included, maps of the geographical characteristic of research sites (Central Java), and demographic annual records of Central Java from BPS (Badan Pusat Statistik/ National Statistics Agency).

• **Direct observation:**
  Direct observation provides additional information for a case study since there is no control exerted over phenomena or behaviour in a case study. It can be formal or
casual: formal observations are usually arranged to assess a kind of behaviour that might occur during a certain period, while casual observations are usually conducted during field visits or interviews. Direct observation can capture events and their context in real time but might be time-consuming and costly (Bryman, 2008; Yin, 2009). This research conducted casual direct observations of the housing conditions of the peasants, species they planted in their fields, how the NGO officials interacted with peasants, and the dynamics of peasant group meetings.

4.4.8 Data analysis method: thematic analysis

In this research I used thematic analysis to analyse the results. An important method for qualitative research, thematic analysis identifies, presents, and evaluates important themes emerging from data into a pattern of themes to guide exploration of phenomena from field work (Daly et al., 1997; Fereday & Muir-Cochrane, 2006). Steps in thematic analysis include familiarising data, generating codes, searching for themes, reviewing themes, defining and naming themes, and producing the report (Braun & Clarke, 2006) as illustrated in Table 4.3.

It is important to reveal the purpose in developing themes used in thematic analysis (Mitchell, 2008). In this research, I indentified the themes deductively (based on the theoretical framework and research questions) as well as inductively (based on interviews). I followed the steps of thematic analysis by initially recording interviews, then writing transcripts of them and coding the data. Then, I assembled the codes into potential themes that were derived from theoretical reviews, the research questions and sub-research questions. For example, I assembled codes about initiatives to plant trees and peasants’ livelihood strategies into the theme of local conditions and dynamics. After identifying, reviewing and defining the resulting themes, I analysed them by connecting them to the research questions and literatures in order to understand the roles of the NGOs. This analysis included their potential and limitations in developing farm forestry programs, and to what extent the programs met with local conditions, including livelihood strategies. An advantage of thematic analysis is that it can be utilised by various theoretical and epistemological approaches. However, the themes can be overlapping and the analytical claims may not correlate to the research theories (Braun & Clark, 2006).
### Table 4.3: Phases of thematic analysis

<table>
<thead>
<tr>
<th>Phase</th>
<th>Description of the Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Familiarisation with Data</td>
<td>Writing down data (if necessary), reading and re-reading the data, writing up down initial ideas.</td>
</tr>
<tr>
<td>Generating Initial Codes</td>
<td>Coding interesting features of the data in a systematic method across the whole data set, assembling data relevant to each code.</td>
</tr>
<tr>
<td>Searching for Themes</td>
<td>Assembling codes into potential themes, collecting all data relevant to each potential theme.</td>
</tr>
<tr>
<td>Reviewing Themes</td>
<td>Checking that the themes work in relation to the coded extracts (Level 1) and entire data set (Level 2), producing a thematic “map” of the analysis.</td>
</tr>
<tr>
<td>Defining and Naming Themes</td>
<td>Ongoing analysis to filter the specifics of each theme, and the overall story the analysis tells; producing clear definitions and names for each theme.</td>
</tr>
<tr>
<td>Producing the Report</td>
<td>The final opportunity for analysis. Selection of vibrant, compelling extract examples, final analysis using the research questions and literature, producing a scholarly report of the analysis.</td>
</tr>
</tbody>
</table>

*Source: Adapted from Braun and Clark (2006).*

### 4.4.9 Dealing with limitations of case study: representativeness, validity and reliability

As stated above, the strengths of the case study lie in flexible procedures that can allow in-depth examination of real-life phenomena. However, the case study method has been criticised for several reasons, the three most important of which are:

1. A lack of rigour and less systematic procedures that can lead to biased views, findings and conclusions (Yin, 2009);
2. The problem of how a single or even several case studies can represent a population and how its findings can be generalised to a wider population (Gable, 1994; Stake, 1978; Yin, 2009); and
3. A lack of means of improving quality of case study through enhancing validity and reliability (Yin, 2009).

**Representativeness**

The objection about the representativeness of a case study confuses statistical with analytic generalisation. In the process of statistical generalisation, samples represent the whole population and thus research findings can be generalised to a wider population. The chosen cases in case studies are not samples that represent the whole community, so that the research results cannot be generalised to a wider population or to another place. Instead of enumerating frequencies or drawing a ‘statistical generalisation’, this case study aims to
make ‘analytic generalisation’ by generalising a particular set of findings to some broader theory in order to help develop and refine previous theories about NGOs and their related contexts (Yin, 2009). Therefore, this research is aims to interpret data in the light of some specific theories, instead of using it to describe a wider population.

To deal with such objections, I conducted a review of preliminary theories to guide me in analysing data and facilitate the process of analytical generalisation. I also chose the multiple case study method by using replication design that is similar to replication logic in multiple experiments. Replication design is important in developing a theoretical framework that can be used for generalising to new cases, as such a model allows me to derive a literal replication if the selected cases provide similar findings. It also enables me to seek a theoretical replication if the selected cases show contrasting results to those predicted before selecting the cases. Moreover, various kinds of interviewees were selected to provide as much variety of information as possible, and data collection was conducted until there were no significant new findings at each site.

**Validity**

There are three important factors to be considered in data collection for establishing construct validity and the reliability of case-study evidence: using multiple sources of evidence (Eisenhardt, 1989; Fidel, 1984; McCutcheon & Meredith, 1993; Yin, 2009), constructing a case-study database, and maintaining a chain of evidence (Yin, 2009). Validity is related to the integrity of conclusions formulated from research (Bryman, 2008). There are several kinds including construct, internal, and external validity (Bryman, 2008; Yin, 2009) as well as ecological validity (Bryman, 2008). Research has construct validity if it determines a sufficient and correct operational set of measures to collect the intended data (Bryman, 2008; Yin, 2009). To increase construct validity, I used multiple sources of evidence (as has been explained before) and established a chain of evidence during data collection.

Establishing internal validity is the way to build a causal relationship that is not spurious, and in which certain conditions lead to other conditions (Bryman, 2008; Yin, 2009). Even though this research was not aiming to explain how and why phenomenon $x$ led to phenomenon $y$, internal validity can be achieved by specifying units of analysis,
developing prior rival theories, and collecting and analysing data to test these theories (Bryman, 2008).

External validity refers to the way in which research findings can be generalised to a wider population or to other cases (Bryman, 2008; Yin, 2009), and is the main basis of criticism of the case study. Selected case(s) in this case study are not samples that represent a certain population, therefore they were not intended to be generalised statistically to a larger population. The analogy with the sample and population in a survey is thus not relevant to a case study, as a survey is used to pursue statistical generalisation while a case study is a means of analytic generalisation, in which the results are abstracted to form a broader theory. To achieve external validity I used replication logic in multiple-case studies as mentioned above (Yin, 2009).

Social research achieves ecological validity if it can be applied by people in their everyday lives, within their natural and social context (Bryman, 2008). To attain ecological validity, I chose cases that were not rare, but had similar natural, social, economic and political conditions to those of other regions, especially in Indonesia.

**Reliability**
Reliability is important to minimise research bias, and refers to how by repeating the same procedures as previously conducted, the researcher can derive the same findings and conclusions (Bryman, 2008; Yin, 2009). Among many efforts to improve reliability are developing case-study protocol, case-study databases, and chains of evidence constructed during data collection (Yin, 2009). To increase the reliability of my research, I developed a study protocol for guiding other investigators in following the same procedures for data gathering. I also created a case-study database by separating the raw data from the research report and result findings; and by organising, categorising and storing the raw data (e.g. handwritten, typed, audio taped, that were stored in files). This is an important means of increasing the reliability of the case study because, through a formal and presentable database of raw data, a subsequent researcher can review the evidence directly, rather than only referring to the written case-study report.
The database includes notes, documents, tabular materials, and narratives. Notes can be results of interviews, observation, or document analysis. Documents are any case-study related documents that are collected during the research. Tabular materials are materials that commonly include quantitative data. Narratives are open-ended answers to questions. The most important requirement is that raw data should be organised, categorised and stored so that they are available for later access (Yin, 2009).

The other way to increase reliability in a case study is maintaining a chain of evidence, which gives the opportunity for an external observer (or the reader of the case study) to trace the evidentiary process from research questions to conclusion, or vice versa. To maintain the chain of evidence, this research report included sufficient citations related to the database. Moreover, the database also mentioned actual evidence and circumstances such as the specific time and place of an interview. These circumstances followed procedures in the case-study protocol. Reliability was further enhanced by the content protocol, which was linked to the initial research questions (Yin, 2009).
Chapter five
Research results

5.1 Introduction
This chapter presents the results of my research to explore the roles and approaches of two non-governmental organisations (NGOs), called Trees-4-Trees and PERSEPSI, in optimising farm forestry in their target areas. The two NGOs have similar aims: to enhance the livelihood of peasants and to improve or maintain the sustainability of private forest, but have implemented different programs. The two target areas of these NGOs are also significantly different in terms of their ecological, economic and social conditions; as well as in the motivation of peasants to plant and sell trees. The first research site to be explored in this chapter is Bageng Village, one of the target areas of Trees-4-Trees. The second research site is one of the target areas of PERSEPSI called Selopuro Village.

Firstly, this chapter discusses the dynamics of local conditions, which include historical background, tree planting initiatives, ecology, socio-economics, livelihood strategies of peasants, factors that influence these strategies, incomes and expenses of peasant households, as well as an account of peasant groups in the villages. The dynamics of local conditions are important to explore because they affect peasants’ acceptability for the NGOs’ programs. Moreover, an account of peasant groups is also relevant to this research because peasant groups are important in supporting the implementation of these programs. Secondly, to investigate outcomes of the NGOs’ program (related to participation, poverty, deforestation, and timber supply) this chapter discusses the NGOs’ efforts in developing farm forestry, how they have implemented their programs, and the changes observed following program implementation. Thirdly, the opinions of peasants about the NGOs and their programs are also explored in this chapter. These opinions are important in this discussion because they are closely related, not only to peasants’ acceptability for -- and sustainability of -- the programs, but also to the legitimacy of NGOs in the eyes of their beneficiaries.
5.2 Case study 1: Trees-4-Trees in Bageng Village

5.2.1 Dynamic of local conditions

**Peasants’ livelihood strategies and the context for forestry**

Peasants in Gembong Sub-District, including at Bageng Village, have many options to cultivate various kinds of plants because their soils are fertile and vehicles can reach even the higher locations. Moreover, many manufacturers in Pati District as well as local markets can absorb their products (e.g. cassava, maize, sugar cane, beans, cotton, coconuts and oranges). The peasants usually cultivate a variety of plants that have different harvesting periods. Planting different species not only reduces the risk of harvest failure, it is also an income generation strategy and a way to spread out their income stream (n = 31).

The plantation program at Bageng Village started in 1976, when the government conducted a coconut plantation program. In the last 10 years, there has been significant change in the villagers’ farming strategies from wetland to dry land cultivation (n = 29). Massive amounts of illegal timber extraction in the state forest near the village during the reformation era in 1998 (a reaction against corruption during the New Order or Suharto era) caused silting up of reservoirs and irregular floods that damaged irrigation networks in the area. This destruction affected residents by reducing the water available for irrigated paddy fields. The difficulty of accessing water for irrigation has motivated peasants to alter their strategy from wetland to dry land farming. In addition, rice has more pest problems than dry land plants (e.g. cassava, maize, and beans). Thus the peasants cultivate more cassava and less rice. They cultivate non-irrigated rice during wet season and cultivate cassava, maize and beans in the dry season (n= 29).

This adjustment was followed by changes in dry land cultivation. Over the last four years, peasants have commonly replaced some of the food crops, especially cassava, with coffee. The reason is that coffee is lower maintenance, and less labour intensive, and is thus less costly to cultivate and harvest (n= 30). Rice, cassava, maize and other food crops are labour intensive. Replanting is required after harvesting, and there are stages in crop maintenance that need many labourers. While coffee needs constant attention during the
first three years, after that peasants can harvest it every year without having to replant it. Plant maintenance is also easier after three years (e.g. pruning, grass clearing, and pest eradication). Planting cassava on land that is far from the road would cost more to plant, maintain and harvest than coffee or trees.

The peasants replace some of their food crops with coffee that is less labour intensive because there is less labour available for farming work in the village. In recent times, farming has become less attractive for the younger generation of Bageng Village. Not only are the plots growing smaller for each person due to population growth, but better education for the younger generation has also given them more options to work in other sectors. Moreover, the rapid growth of the industrial sector of urban areas that absorbs many labourers has enticed young people to work as factory labourers in urban areas (n=31). The younger generation is also less familiar with farming activities because their parents have not prepared them to be peasants. Instead, they have worked hard to provide a better education for their children. They have spent large sums of money on education expenses in the hope that their children can be government employees, teachers, factory labourers or something other than peasants. Thus the younger generation has spent more time at school than in their parents’ fields (n=6). From 20 interviewees’ children in Bageng Village (16 up to 25 years old), only 5 percent are involved in farm forestry activities. The children usually help their parents to collect grass for their livestock. One older peasant (55 years old) explained the reason why the younger generation is less interested in farming activities:

“The young people rarely go to the fields. They do not want to get dirty in the mud or get sunburnt. Working in the field is too hard for them. They use their mobile phones everywhere and all the time. Their hands are too smooth to hold a hoe.” (Interviewee D25)

Job opportunities for overseas labourers are another reason for the people of Bageng Village to work in the off-farm sector. Labour agents come to their village and organise labour training, and then arrange their departure for overseas countries. Even though jobs are available both for women and men, it is mostly women who accept them because the men need to take care of their fields and livestock. The overseas labourers usually work in Saudi Arabia, Malaysia and Hong Kong for a much higher salary than the
minimum rate of pay in Indonesia. Most of the women (between about 25 and 45 years of age) at Bageng Village have been overseas labourers. When their wives go overseas, husbands are very busy being ‘temporary single parents’ as well as taking care of domestic work and their fields. Normally for cultivation, maintenance, and harvesting, the peasants pay each other to work in their fields. However, overseas jobs taken by women means the men have less time to work on the others’ plots.

The lack of farming labour results in increasing wages for farming labour, and costs for cultivating species that are labour intensive. Moreover, the peasants also realise that cultivating land becomes harder as they grow older and weaker. Based on these factors, they consider that lower maintenance and less labour intensive species are more suitable for present and future conditions (n = 23). One old male peasant (50 years old) explained his reason for changing to coffee cultivation:

“I am getting older and weaker, so are other peasants. My children do not want to work hard in the fields, neither do others’ children. Besides, there is much work to do for cassava. Now I can still handle it, but it would be difficult in the future. I have to plant something else that is easier and simpler to maintain and can be harvested every year. So I changed some of my cassava fields to coffee fields.” (Interviewee DX9)

The more people engage in off-farm activities, the more options they have regarding farming strategies. Income from off-farm activities can reduce the peasants’ dependency on their plots for their daily needs, so they do not have to rely on short-term harvested plants, but can plant coffee as well as long-term harvest plants (e.g. Albizia, teak/Tectona grandis L. f, and mahogany/Swietenia macrophylla). Peasants with less income from off-farm activities are likely to grow short-term rather than long-term harvest plants (n= 28).

Coffee seems to be the new farming trend at Bageng Village, as they found that it is suitable for local conditions and more profitable, even though some of them plant coffee because everybody else does (n= 5). However, not all of the peasants have changed some of their cassava fields into coffee fields. Peasants with smaller sized plots (less than 0.1 hectares) are reluctant to plant coffee because it would take three years until the first harvest was possible (n= 2). They need plants that can be harvested every three months
(e.g. beans, maize) or every year (e.g. cassava) to fulfil their daily needs. Thus their available capital, especially the size of their plots influences their decision about what to plant. It is easier for peasants who have a larger land holding to change some of their cassava fields into coffee fields. They still have other sources of income for fulfilling short-term needs while waiting for three years until the first coffee harvest.

For the peasants, the terms of land access are also a main consideration in choosing a certain crop. On the basis of access, the land can be categorised as permanently accessible (e.g. privately owned lands) or temporarily accessible (e.g. leased, shared or for other temporary usage). Most lands under the authority of the village and district government are leased, while others are provided to the head of village and village officials on a temporary basis, as a replacement for salary until their term of task period has come to an end.

Land to which peasants have permanent access provides more options for them to plant short-, medium-, or long-term harvested crops. In contrast, temporary access to land does not afford any other option than short-term harvested crops. On land to which they have temporary access, they prefer to plant short-term harvested crops (e.g. rice, cassava, maize and beans) even though the gradient may be very steep and have potential to cause erosion. In this situation planting long-term harvested plants on short-term access-land will not benefit them. The forestry service has encouraged them to plant coffee or trees on village land to reduce erosion but its officials at the district level do not have authority to force the issue. The village government has not taken the initiative to plant trees on the village-owned critical lands, because it needs income from renting the lands to pay for village expenses (e.g. public services, elections at village level).

Agricultural knowledge can also motivate the peasants in choosing species to plant, and is traditionally passed from generation to generation. Some peasants who do not have knowledge of coffee cultivation do not want to take a risk with it (n= 8). Before the trend towards planting coffee began, peasants mostly grew trees, especially cotton trees as a border on their lands. When they know that coffee needs trees to cover it from direct sunlight, they are motivated to plant more trees (e.g. *Albizia*, *lamtoro*/*Leucaena diversifolia*, and *tereside*/*Glerecidae sepium*) between rows of coffee plants (n= 30). They
Another consideration of the peasants in cultivating certain species is that there are markets available for the products. There are many manufacturers and local markets in Pati District that can absorb sugar cane, cassava, maize, beans, coffee, cotton, oranges, coconuts and timber. They sell their products to local traders who come to their residences, who then sell them at the local market and to manufacturers (n= 30).

Support, incentives and information from the government, NGOs, and other organisations to cultivate certain plants have also been important in motivating the peasants to choose those species. Some of them admitted that the Forestry Service at district level has encouraged them to plant more species that can absorb rainfall especially on steeply sloping areas. They received ecological information from the Forestry Service employees, that cassava can reduce minerals in the soil and thus fertility, loosen the soil and cause erosion, so they are motivated to plant more coffee as it can absorb more water (n= 11).

The Department of Agriculture has provided incentives of food-crop seedlings, fertiliser, and pesticide to enhance their agricultural income. Similarly the Ministry of Forestry implemented the Land and Forest Rehabilitation program in the area by providing free tree seedlings as well as money for tree planting and maintenance costs. The most critical area in every village was chosen for rehabilitation, so that peasants whose land was included in it received the seedlings and money, which encouraged them to plant trees on their critical land. In 2008 Trees-4-Trees also implemented its plantation program. Trees-4-Trees delivered free tree seedlings and technical assistance but did not provide money for plantation and maintenance costs. The peasants could order any kind of tree species as long as Trees-4-Trees still had the seedling in stock. Every peasant (i.e. not just those whose lands are critical) could order tree seedlings. The free seedlings encouraged peasants to plant more trees, but the people prefer to plant Albizia rather than teak (Tectona grandis L,f) because it can be harvested after six years, while teak takes a longer time to be ready for harvest (n=29).

Most peasants at Bageng Village have livestock, some of which are incentives from the government. As the livestock need food, they are motivated to plant grass and fodder
trees (e.g. lamtoro/ *Leucaena diversifolia*, and tereside/ *Glerecidae sepium*). Livestock are also a form of life savings that can be sold for cash, so the more livestock, the more options they have in choosing their farming strategies (n= 13).

**Table 5.1**: Dynamic of farming strategies and tree planting activities at Bageng Village

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976</td>
<td>Coconut plantation program</td>
</tr>
<tr>
<td>1998</td>
<td>Massive illegal timber extraction in the state forest</td>
</tr>
<tr>
<td>1998-2007</td>
<td>• Silting up of reservoirs and irregular flooding</td>
</tr>
<tr>
<td></td>
<td>• Damaged irrigation network in the area</td>
</tr>
<tr>
<td></td>
<td>• Reduced water for irrigated paddy fields</td>
</tr>
<tr>
<td></td>
<td>• Shift of farming strategy from wetland to dryland farming (from paddy field to cassava field)</td>
</tr>
<tr>
<td></td>
<td>• Land and forest rehabilitation program</td>
</tr>
<tr>
<td>2007-now</td>
<td>• Changing from cassava to coffee</td>
</tr>
<tr>
<td></td>
<td>• Planting more trees as canopy for coffee</td>
</tr>
<tr>
<td>2008</td>
<td>Tree planting program from Trees-4-Trees</td>
</tr>
</tbody>
</table>

**Household incomes and expenses**

The three main sources of cash income for peasants at Bageng Village are food crops (e.g. cassava, maize, and beans), estate crops (e.g. coffee, cotton, sugar cane and coconuts) and off-farm activities (n= 25). The food crops are also a source of non-cash income for them, as they use some of the food products for daily consumption. Paddy fields at Bageng Village are only 3 percent of the total village area. They plant rice mostly for daily consumption and to satisfy social obligations (e.g. wedding gifts) (n= 25).

They have not relied on trees as a source of income (n= 27). They log them occasionally when they need to build or renovate a house, or if they need cash immediately. Most of them only plant trees as a border for their lands and between rows of coffee (n= 24). Only peasants who have larger plots (more than 8 hectares), plant trees on some of their land as a monoculture (n= 1).

Off-farm activities are an important source of cash income for them, including working as a teacher, government employee, trader, and farm labourer. Some of them, especially the young people, work in urban areas as factory and builders’ labourers,
supermarket employees and at other jobs typically found in cities. As has been mentioned before, most of the women (25-45 years old) in Bageng Village have worked in Saudi Arabia, Malaysia and Hong Kong, mostly as housemaids. Due to the low value of the Indonesian currency compared to those of the countries in which they work, their salary is much higher than for the same job in Indonesia. They used their additional income on building or renovating their house and other capital investments (e.g. livestock, land, vehicles).

Among their expenses, wedding gifts are the most burdensome (n= 25). For every wedding invitation they are obliged to give about 10 kilograms of rice, 5 kilograms of sugar, 2 large cartons of cigarettes, and money totalling US$5. Altogether they should allocate US$25 per wedding gift, and double that amount of money if the invitations are from close relatives. If they do not have enough cash for the wedding gifts, they sell livestock or trees if they have them, or borrow money from others. On average, about 1,000 people attend the wedding party. Even though the social obligation is burdensome, it is impossible to change the custom. It has been a way of building social cohesion in the village for many years. The wedding ceremonies for Javanese people are usually held in certain appropriate months of the Javanese calendar, during which there can be more than ten invitations for every household. If they accept the invitations, they have the gifts reciprocated when they have wedding parties for their children. An example of households’ livelihood strategy is described in Box. 5.1, while economic profiles of interviewees are presented in Table 5.5.
Box 5.1: Example of one peasant household and its livelihood strategies in Bageng Village

**Members of the household**
The household has 4 members:
- Father aged 54 years; highest education level: year 6;
- Mother aged 44 years; highest education level: year 6;
- Son aged 18 years; present education level: year 11;
- Son aged 10 years; present education level: year 4.

**Land access**
- Home garden: 130 m² (land status: owned; land-use: coffee, banana).
- Dry-field: 200 m² (land status: owned; land-use: teak, albizzia, cotton tree).
- Dry-field: 200 m² (land status: owned; land-use: cassava, maize, cotton tree).
- Dry-field: 200 m² (land status: owned; land-use: cassava, maize, cotton tree).
- Dry-field: 5000 m² (land status: owned; land-use: cassava, cotton tree).

During wet season, the father replaces cassava and maize cultivation with rice.

**Time allocation for farming activities**
Time allocation for farming activities depends on various purposes/seasons:
- Daily routine and maintenance: the father spends 6 to 7 hours daily collecting grass for livestock and the mother spends 1 hour collecting grass for livestock;
- During planting and harvesting: the household hires 7 people for 15 days
  (The children do not get involved in the farming activities).

**Sources of income**
The household has several sources of cash income and non-cash income:
- Off-farm activity: 5 percent of cash income is from the father’s off-farm activity as a farm labourer in others’ fields;
- Cassava: 4.5 million IDR per year or about 40 percent of the whole cash income;
- Maize: 3 million IDR per year or about 30 percent of the whole cash income;
- Cotton: 2.3 million IDR per year or about 20 percent of the whole cash income;
- Rice: the household plants rice for self-consumption and wedding gifts and does not sell it;
- Coffee: 600,000 IDR per year or about 5 percent of the whole cash income.

The coffee has just been planted, so it has not reached the maximum production. The coffee field used to be a cassava field. The household exchanged cassava for coffee because it is costly to plant, maintain and harvest cassava. By contrast, after three years, the yield for coffee is higher and it is less labour-intensive and less costly to maintain;
- Livestock: 2 cows.
  It is as an investment. The household usually gets a profit of US$5 to US$10 for each cow, if the household sells them after 6 month;
- Trees: The teak and albizzia are still small, having been planted 3 years ago.
  The 500 tree seedlings are from Trees-4-Trees. The household started to plant trees because they are low maintenance plants. The father realised that in the future the labour supply for farming would be decreasing. He is getting older and weaker and the younger generation is becoming less interested in farming. Thus he believes that trees can be his future source of income when he cannot work hard any more.

Source: Interviewee DX9, March, 2011.
Compared to cassava; coffee and trees (*Albizia*) are more profitable. However, due to a shorter harvesting period and other reasons explained before, not all peasants want to plant coffee and trees. One of them compares the possible expenses of and income from coffee, cassava and *Albizia* in Table 5.2 below.

**Table 5.2:** Comparison of possible profit from coffee, cassava and *Albizia*

<table>
<thead>
<tr>
<th>Assumption: The fields for these crops are optimum quality and the price for the product is the maximum price.</th>
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</thead>
<tbody>
<tr>
<td><strong>Coffee</strong></td>
</tr>
<tr>
<td><strong>Production per Hectare</strong></td>
</tr>
<tr>
<td><strong>Total production per year:</strong></td>
</tr>
<tr>
<td>35,000,000 IDR</td>
</tr>
<tr>
<td><strong>Cost</strong></td>
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*Source: Interviewee D25, March, 2011.*
5.2.2 Peasant groups at Bageng Village

Peasant groups at Bageng Village have existed since 1978, but have been dispersed and reformed more than once. The groups were created by the local government when there were projects to be implemented. However, when the projects were finished the groups became less active and dispersed; they reformed when there were new projects for them to participate in. Now there are 12 peasant groups at Bageng Village that are concerned with a mixture of agriculture, estate crop, and forestry. There are other separate groups that have a specific focus (e.g. sugar cane, orange, and livestock groups).

The main reason for the peasants to join the groups is to receive subsidised fertiliser and other incentives. The 12 peasant groups were re-established when the district Agricultural Service provided a ‘fertiliser incentive program’ in 2007/2008. At the time, fertiliser was scarce and expensive, the price per sack being US$70. This price was too high for them and they could not afford to buy it. The government provided a fertiliser incentive of US$6 per sack, and encouraged them to form new peasant groups to coordinate the distribution of the fertiliser. Only members of peasant groups were allowed to apply for the incentive. Many other incentives from government were given in the form of food crop seedlings and pesticide (n= 23).

Another reason for the peasants to join peasant groups is to access credit. The 12 peasant groups are still in existence, some of which also organise microfinance for their members. The money for this facility comes from members’ savings, and credit from the village cooperative unit (KUD). Every member is obliged to deposit a fixed amount of US$1 when they join. Then every month they must save US$0.30. Every member can borrow money at 2 percent interest. The peasant groups profit from the 2 percent interest and distribute it at the end of the year to all members who have deposits. Members who cannot save the money to deposit are still able to borrow but they are not entitled to a share of the profit. To raise more capital for providing credit, some peasant groups are loaned money from the village cooperative unit at 1.5 percent interest. The groups lend money to members at 2 percent interest, and so they save the interest difference (0.5 percent) in the groups’ treasury. Non-members are not eligible for credit from the microfinance facility (n= 11).
The field staffs of the Agricultural and Forestry Services occasionally attend the peasants’ meetings to provide information about agricultural, estate and forestry programs. They are most likely to take part when there are new projects to be implemented or problems to be addressed. The information provided about agricultural, estate and forestry matters has motivated the peasants to join, and attend the meetings (n=14). However, some of them are reluctant to come to the meetings because of their inconvenient time. The meetings are held at midday when they are still working in the field, so full-time peasants and peasants’ labourers rarely attend the meetings (n=6).

Even though women may have equal power with men in their domestic/household decision making, they also rarely attend the meetings and are less involved in the peasant groups, except women who are elected as a board member of the groups. One reason is that some of the women of Bageng Village are working overseas. Besides, based on Javanese culture, men are the head of the household, so they play more roles in public activities; exceptions to this norm are the women who have no husband, or whose husband cannot be involved actively in the peasant group for some reason (e.g. sickness, work in other regions). In the beginning (when the peasant groups were established) meetings were held monthly, but now some of the groups convene every three months, as a monthly meeting can cause the members to become less enthusiastic and even bored.

The district Agricultural Service also formed a forum of peasant groups at village level (Gabungan Kelompok Tani/ GAPOKTAN) in 2008/2009. The forum was established when the district Agricultural Service provided low interest credit for agribusiness development called PUAP totalling US$10,000 for each village. The board of the forum consisted of government officials at village level and was elected by the district Agricultural Service. However, as the board was not representative of each peasant group, the forum was less than fully legitimate in the opinion of group members. The forum wanted to allocate the money for buying fertiliser, organising its distribution to all members and making a profit for the forum’s treasury. By contrast, the peasants wanted the money distributed to each of their groups in differing amounts depending on the number of members in each group. Since the PUAP had been created for agribusiness development, the forum decided at length to lend the money to members of peasant groups whose agribusiness proposals were approved. However, the members of peasant groups
were disappointed because only a small number of people received credit from PUAP. They were suspicious that the board of the forum had not been fair and had lent the money to people with a close relationship to the board of GAPOKTAN. Since the PUAP money has been distributed, there has been no meeting of GAPOKTAN and it has produced no financial report.

5.2.3 The role of Trees-4-Trees at Bageng Village

In implementing its program, Trees-4-Trees collaborates with farming high schools, or Islamic-based schools in areas that do not have a farming high school. In offering the opportunity for collaboration, Trees-4-Trees provided information on its program to the ‘Working Discussion Forum of Headmasters of Farming Schools of Central Java’. When a headmaster of a farming school agrees to collaborate with Trees-4-Trees, they sign an MOU, which means that the headmaster is appointed as Area Manager. Area Managers are coordinators who nominate teachers, school employees or alumni of the farming school as a ‘field coordinator’. Each field coordinator must choose five villages as target areas that have a shared boundary. There are two kinds of field coordinators: field coordinator ‘category A’ and field coordinator ‘category B’. Those in ‘category A’ only conduct planting activities while field coordinators in ‘category B’ assist peasants with planting, maintenance and harvesting. It is their choice whether to operate in category A or B. The field coordinators who are teachers and employees of farming schools must make their school duties their first priority. The field coordinator position is only a casual or part-time job for them. The payment of a field coordinator is not in the form of salary, but is given after the completion of a certain task; thus they do not receive it if they do not conduct any activities.

Each field coordinator can choose more than one target area. In Pati District, there are eight field coordinators for 40 villages. The Gembong Target Area lies in Pati District, and covers five villages: Bageng, Gembong, Plukaran, Ketanggan and Klakah kasihan Villages. Of these villages, only Bageng Village has been a member of Trees-4-Trees. The other villages are only participants in Trees-4-Trees. Member status is different from participant status, as members sign an MOU with Trees-4-Trees and agreeing to be assisted by it and follow its planting and maintenance procedures. There is no obligation for members to sell their timber through Trees-4-Trees. As members they can choose their
level of involvement (e.g. from planting until harvesting or only following maintenance and harvesting activities). Participants of Trees-4-Trees do not have to sign an MOU, simply receiving tree seedlings from Trees-4-Trees that they cultivate without assistance with planting, maintenance and harvesting from Trees-4-Trees. Trees-4-Trees started its program in Pati District in 2008, when 185 peasants participated. In 2009, there were 506 new participants and in 2010, 10 peasants participated in the plantation program. The total number of peasants who participated in the Trees-4-Trees program in Pati District from 2008 to 2010 is 707.

The plantation program of Trees-4-Trees
Trees-4-Trees employees and the field coordinator of Gembong Target Area have conducted several activities at Bageng Village:

1. **Program promotion or program information.**

   Trees-4-Trees employees and the field coordinator submitted its program plan to the Forestry Service at district level and the head of Bageng Village. There has been no collaboration between Trees-4-Trees and the district Forestry Service even though their goals are similar (n= 13). Trees-4-Trees employees and the field coordinator contacted heads of the eight peasant groups in Bageng Village when the head of village allowed Trees-4-Trees to implement its program in the local area. Then Trees-4-Trees promoted its program to the boards of these peasant groups. Of twelve peasant groups, eight of those were interested to join as members of Trees-4-Trees and signed an MOU to that effect; six of the groups agreed to be assisted by Trees-4-Trees from planting, through maintenance until harvesting, while two peasant groups agreed to adopt the maintenance and harvesting program.

   After the peasant groups signed the MOU, Trees-4-Trees reconvened them adding two sections, one for production and marketing and the other for forest management. Then the field coordinator promoted the Trees-4-Trees program to each of the eight peasant groups at their meetings. The field coordinator and boards of the groups asked every member whether they were interested to become a member of Trees-4-Trees, or simply wanted to be a participant (only engaged in planting). The field coordinator and boards of the groups explained the rights and obligations of members of Trees-4-Trees. If the peasants agreed with these, they
signed a declaration letter to join as members of Trees-4-Trees. If a member of Trees-4-Trees is not active within six months, he/she is automatically disqualified from membership of Trees-4-Trees and has no right to be assisted by Trees-4-Trees:

2. **Social impact assessment.**

Employees of Trees-4-Trees conducted a social impact assessment of both individual and village level.

The individual social impact assessment was a survey about:

- Personal details: main occupation, secondary occupation of peasants;
- Opinion of the Trees-4-Trees program: whether they supported, opposed or did not know about the program;
- Tree species they would like from Trees-4-Trees and the reason to choose certain species;
- The plant management model: their tree planting, maintenance, harvesting and marketing regimen; and
- Sources of income.

The village social impact assessment contains:

- The potential of peasant organisations to form Forest Management Unit (FMU);
- Types of tree species that have been commercialised;
- The percentage of forest area and proportion of village land that was reforested; and
- Production and marketing links.

3. **Planting inventory**

The field coordinator collected a copy of the resident card, certificate of land ownership and other relevant documents from each member. Then the field coordinator and boards of peasant groups conducted a land and tree inventory involving tree numbers, and species, planting locations and existing standing trees, with diameters of 20 cm or more on each member’s land;
4. Site inspection and mapping
The field coordinator and boards of the peasant groups checked availability of lands (e.g. legal, social and technical forestry aspects) and conducted area mapping by using GPS, to record the positions of planting areas;

5. Grower training
Trees-4-Trees and the field coordinator provided information about planting, maintenance and tree measurement at peasant group meetings. There were practical training sessions in the field but only for board members of the peasant groups;

6. Seedling distribution
Trees-4-Trees delivered the tree seedlings. The board of each group then coordinated the seedling distribution to each member in accordance with the tree species requested. The activity steps of the Trees-4-Trees program do not always follow a set order. This order depends on the condition of each village or area. Peasants can be involved in harvesting before engaging in planting. For example, two peasants from Jrahi and Giling Villages, both in Gunung Wungkal Sub-District in Pati District, wanted to sell their Albizia trees through Trees-4-Trees before joining as members; and

7. Harvesting assistance
As part of its harvesting activity, Trees-4-Trees looked for interested buyers, and if they were found, it formed a harvesting team that consisted of Trees-4-Trees production and marketing staff, the field coordinator (of Gembong Target Area), timber administrator, timber measurer, and the board of the peasant group. In helping the peasants with harvesting and marketing, Trees-4-Trees did not keep any of the profits. After measuring the tree size and calculating harvesting and transportation costs, Trees-4-Trees paid an amount of money to the tree owners before logging them. If the sale price realised were higher than the money given to the tree owner, Trees-4-Trees would pay the difference in the amounts to the tree owner. However, if the sale price were lower than the money given to the tree owners, it would be Trees-4-Trees’ loss. Salaries for the members of the logging team were paid by Trees-4-Trees. Members of Trees-4-Trees do not have to sell
their trees by means of it, but they are required to report any sale to Trees-4-Trees for the purpose of updating its timber database.

Through its tree plantation program, T-4-T offers opportunity for peasants to benefit from timber enterprises, as an alternative source of income. In offering the opportunity, Trees-4-Trees was promising to assist peasants not only in planting and maintenance but also in harvesting and marketing their timber. In terms of timber harvesting and marketing, the timber price offered by manufacturers is the standard price, but Trees-4-Trees can offer a higher price and better profit than local traders, for the reasons given below:

- Trees-4-Trees sells the timber directly to manufacturers, so as to shorten the timber marketing chain. By contrast, local traders sell the timber to wholesalers who often sell it to other timber collectors. The length of the usual timber marketing chain reduces profits for peasants. Moreover, even though Trees-4-Trees provides support for tree planting, there is no obligation for the peasants to sell their timber through it. They can choose the higher price on offer after comparing Trees-4-Trees’ and local traders’ (n= 23). Therefore, Trees-4-Trees can be a competitor of local traders’ and can raise the timber price offered by local traders (n= 9);

- Trees-4-Trees uses a tree measurement method that is more beneficial for peasants than that of local traders (n= 10). Trees-4-Trees measures tree diameter about 130 cm from the ground while local traders measure it at the highest level their hand can reach which is about 200 cm there from. The measurement method of Trees-4-Trees results in a larger diameter than that of the local traders (n= 20). The larger the diameter, the higher the price; and

- Trees-4-Trees does not take any profit from tree marketing, based on observation of how it assisted with harvesting in Jrahi Village. It is also open about the tree measurement, calculation of harvesting, and transportation costs, as well as the price obtained from manufacturers. Harvesting costs include rental of harvesting tools and vehicles, as well as salary for loggers’ labourers and Trees-4-Trees’ harvesting team. There are five to six people in the harvesting team, which consists of the field coordinator, harvesting cost estimator, and three or four tree administrators. Trees-4-Trees would estimate
the harvesting cost and make cash payment before harvesting. If the estimated cost were more than the real cost, Trees-4-Trees would pay the difference, using the money from the manufacturers to reimburse tree owners. If the estimated cost were less than the real costs, Trees-4-Trees would pay the extra cost.

Despite these advantages, there are limitations affecting Trees-4-Trees in its ability to meet the expectations of peasants:

- **Trees-4-Trees** sells the timber directly to the manufacturers that only want to buy large amounts of timber, so that it prefers to buy a large quantity of timber, which fills at least one truck to reduce harvesting and transportation costs. Yet peasants sometimes only have a small quantity of timber, and hope Trees-4-Trees could buy it (n= 17). However, it is difficult for Trees-4-Trees to reduce harvesting and transportation costs if it buys a small quantity of timber in different areas that are far apart. Therefore, the peasants who sell a small quantity of timber prefer to sell it to local traders (n= 10);

- **Trees-4-Trees** is only concerned with planting, maintenance, and harvesting. However, the peasants need short-term sources of income for their daily needs. Thus it is impossible for them to plant trees as a monoculture, as they are a long-term harvested source of income. They hope Trees-4-Trees will also provide support for additional income sources (n= 18) (e.g. incentives for planting food crop or spices below the tree canopy and multipurpose tree species/ MPTS); and

- Even though Trees-4-Trees makes a direct cash payment after it estimates the harvesting cost, the process of selling timber through Trees-4-Trees (1-7 days) is longer than that of local traders (1-2 days). The process of selling timber through Trees-4-Trees and obtaining cash is illustrated in Figure 5.1.
Figure 5.1: Process of selling timber through Trees-4-Trees

5.2.4 Changes after implementation of Trees-4-Trees program: tree planting, maintenance, harvesting and marketing behaviour

Before tree plantation programs by the Ministry of Forestry and Trees-4-Trees were implemented, the most common tree species in the village was cotton tree, planted along the border of plots to produce cotton instead of timber. The peasants received teak (*Tectona grandis* L.f) and mahogany seedlings mostly from the tree plantation programs. They planted seedlings donated by the Forest and Land Rehabilitation program in certain critical areas. However, trees have not been a main source of income for them. They prioritise food and estate crops over trees because trees are long-term harvested plants. Therefore, when Trees-4-Trees provided free seedlings, only some of the peasants planted trees as a monoculture in one area of their land (n= 1), the others preferred to plant the trees on the border of their cassava fields or in between rows of their coffee trees to provide a canopy. They preferred to plant *Albizia* rather than teak because *Albizia* could be harvested sooner.

While almost two years have passed since program implementation at Bageng Village, according to the peasants (n= 25), the field coordinator and Trees-4-Trees
employees have not communicated with members of peasant groups at group meetings or conducted tree monitoring in that time. Thus the peasants continue their farming activities as usual. They do not spend a specific amount of time every day maintaining the trees, but attend to them while engaged in other activities in their fields (e.g. collecting firewood and grass, or maintaining their food crops and coffee). To fertilise their trees they use organic and chemical fertiliser, and they use chemical pesticide to combat tree pests. Some of them said that the survival rate of their trees from Trees-4-Trees was less than 60 percent (n= 7) because some seedlings were not in good condition when they were received, and some of the trees were damaged by strong winds. However, some of them did not report this problem and thought that it did not matter to them. Some of them reported the damaged trees to the heads of the peasant groups but these officials did not forward the report to the field coordinator, because the field coordinator had stopped his field-visiting.

The local people mostly log trees to build or renovate their houses, or to meet urgent needs. Since timber at Bageng Village has not been prioritised as a source of income, there are still small numbers of harvest-ready trees in the village. The trees from the Ministry of Forestry and Trees-4-Trees are still less than four years old, so they have not harvested timber at this time. Trees-4-Trees is still busy expanding its program to other target areas in Cilacap District and conducting program promotion to attract more manufacturers, retailers and distributors at a furniture exhibition to support its program. The field coordinator and Trees-4-Trees are engaged in harvesting and marketing activities at other villages in Pati District (e.g. Jrahi and Giling Villages). The field coordinator and Area Manager provided information to the effect that everything is going well and according to plan, but one Trees-4-Trees employee informed me that in 2009-10 Trees-4-Trees experienced financial difficulty. The manufacturers that lent the money to cover its operational costs suddenly wanted it returned. The money had been allocated to buy a large number of seedlings. Therefore, Trees-4-Trees had to temporarily halt all activities of the field coordinators until it had enough money from the contributions of its supporters.
5.2.5 Opinion of members of peasant groups about Trees-4-Trees and its program

Board members of the peasant groups had a better knowledge of Trees-4-Trees and its program than did the members (n = 4). Some of the members knew that they received free seedlings, but not who donated them or anything in detail about Trees-4-Trees or its program (n = 21). When the field coordinator promoted the Trees-4-Trees program, some of them did not attend the peasant meetings that are held at midday, which is the middle of their working day (n = 6); while some of them attended the meeting, but they have continued to be ignorant about the subject (n = 15). A male peasant (40 years old) gave the reason he rarely attends the meetings:

“I do not know about Trees-4-Trees. Rarely do I attend the meetings because the usual meeting is at 1 pm. It is in the middle of my working day. I am so busy working in my field and it is quite far.” (Interviewee D19)

Some of the peasants expressed their appreciation of what Trees-4-Trees had done. They recognised advantages and limitations of Trees-4-Trees’ initiative by comparing it with the government’s re-greening program. These advantages were:

- They could choose any species of tree they wanted and Trees-4-Trees delivered their order, as long as the ordered species matched the site conditions, marketing potential and available seedling stocks of Trees-4-Trees. Conversely, in the re-greening program the species of seedlings had already been decided (n = 20);

- Every peasant who has available land to be planted can order tree seedlings from Trees-4-Trees. Under the government re-greening program, the re-greening locations are only in areas that are categorised as critical lands. Only peasants whose lands are in these areas receive the seedlings (n = 25);

- Trees-4-Trees is more flexible in its budget arrangement for its plantation program and has less complicated procedures for providing the seedlings. However, the government must wait for certain annual program allotments and budget outlays in order to provide free tree seedlings. Sometimes the seedlings from the government arrived when the planting season was already over (n = 17);
- Trees-4-Trees could assist the peasants with tree harvesting and marketing while the government only focused on tree planting activities (n= 12); and
- In implementing its program Trees-4-Trees works directly with each peasant group and does not involve ‘the forum of peasant groups’. By contrast, the government implemented its program through the ‘forum of peasant groups’ (n= 13). In the eyes of the peasants, the forum is not legitimate as the government established the board of the forum, which consists of government village employees. Further, according to them, the forum is less transparent about its budget (n= 5).

Despite its advantages compared to the government’s re-greening program, Trees-4-Trees’ plantation program has limitations, in that it does not provide incentives or money for tree planting and maintenance costs, while the government does. Some of the peasants can accept this (n= 5) but the others lose enthusiasm for maintaining their seedlings (n= 19). Advantages and limitations of Trees-4-Trees program in assisting the peasants in tree planting, maintenance, harvesting and marketing are summarised in Table 5.3.

**Table 5.3: Advantages and limitations of Trees-4- Trees tree plantation program**

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Works directly with each peasant organisation.</td>
<td>No collaboration with the district Forestry Service.</td>
</tr>
<tr>
<td>Possibility of choosing tree species.</td>
<td>No incentive for planting and maintenance.</td>
</tr>
<tr>
<td>Planting areas are not limited to certain critical areas.</td>
<td>No regular monitoring after planting activities as had been planned.</td>
</tr>
<tr>
<td>Possibility of peasants choosing tree species.</td>
<td>Prefers to buy a large quantity and high quality of timber as demanded by manufacturers.</td>
</tr>
<tr>
<td>Peasants can order seedlings as long as they have space for them and do not sell them.</td>
<td>No support for planting short-term harvested plants or other alternative short-term sources of income.</td>
</tr>
<tr>
<td>Less complicated procedure to obtain seedlings.</td>
<td></td>
</tr>
<tr>
<td>Not only provides assistance in planting but also for harvesting and marketing the trees.</td>
<td></td>
</tr>
<tr>
<td>Offers a higher price than local traders because Trees-4-Trees can shorten the chain of timber marketing and use more beneficial tree measurement methods.</td>
<td></td>
</tr>
<tr>
<td>No obligation to sell timber through Trees-4-Trees.</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Interviews with peasants in Bageng Village (n= 25), March, 2011.*
5.3 Case study 2: PERSEPSI in Selopuro Village

5.3.1 Dynamic of local conditions

Tree planting initiatives
During the Japanese colonial era (1942-1945), the government built water reservoirs in some village areas that are fertile and located in a lower part of the landscape. Some village inhabitants were relocated to outer islands and others to the infertile, elevated, rocky area characterised by wild grasses, bushes, bamboo and rock that is now called Selopuro Village. At that time trees cover was sparse and only consisted of local species that were self-grown.

The infertile land did not provide many options for the Selopuro inhabitants to plant irrigated rice or other varieties of food crops. During the 1960s they relied on cassava as their staple food instead of rice. However, cassava production was not enough to fulfil their calorie needs because it was grown in shallow, infertile soil lying among the rocks. Therefore, during the 1960s the people struggled for their livelihood because of food scarcity. The state of their land became even more critical because they cut down the self-grown trees for firewood or sold it to buy food. As a result the soil conditions worsened and there was more erosion, as well as food and water scarcity. These problems have motivated local people to cultivate plants that are more suitable to the natural conditions of their village (n= 26). An old peasant told a story about the difficulty of getting sufficient food during that era:

“When I was a kid in 1965, we struggled for survival. Food was very rare, so we hardly ate three times a day. We only ate ‘gaplek’ (steamed dried cassava) with salt. Actually, the land was not good for cassava but we did not know of any other option. We thought it was only cassava that could grow here. Many people got malnutrition at the time.”
(Interviewee A9)

Selopuro Village is adjacent to state forest that is managed by a state forest corporation called PERHUTANI, but tree planting initiatives on the village land first began in the 1960’s. It is difficult to say whether they came from the local people, or
government, or a combination of both. It is preferable to describe the initiatives and related activities as occurring in several stages.

In the 1960’s, the first initiatives to plant trees were taken by individuals. There were no government programs or incentives to plant trees, nor did peasants form peasant groups. The pioneering tree growers replanted seedlings (e.g. *Albizia falcata*ria and *lamtoro/ Leucaena diversifolia*) that had grown naturally on their lands. Replanting teak (*Tectona grandis L.f*) and mahogany (*Swietenia macrophylla*) was high-risk at the time because taking seedlings from state forest was considered a crime (n= 2). One of the tree planting initiators criticised the government of the era for having discouraged individuals from planting teak and mahogany on their land:

“One of my friends took teak seedlings from the state forest (PERHUTANI forest). He was treated as a thief and was jailed for a week. It was mistaken for a monopoly of teak and mahogany to be given to PERHUTANI. We just wanted to support our life and our lands. What stupidity!” (Interviewee A27)

One of these individual initiatives came from several high school students. They took part in Boy Scout activities at school that taught them to plant trees along fences. Then they repeated them by planting acacia (*Acacia mangium*), teak and mahogany on their lands. Another person also planted trees on part of his plots. Other local people followed after seeing evidence that limestone soil was more suitable for trees than agricultural plants.

In the 1970s the district government allowed them to cultivate the water reservoir area during the dry season, when the water level decreased. Since then, the Selopuro inhabitants have depended on the water reservoir area for their food crop because most other areas of the village are unsuitable. Accordingly, they have planted more trees than food crop in the rocky areas as, compared to other species, trees can grow better there.

The Indonesian government started to get involved in tree planting activities at Selopuro Village through PERHUTANI in 1976, with the MALU (*Mantri-Lurah*) project. PERHUTANI provided *lamtoro gung* (*Leucaena leucocephala*), local *Albizia* and *Acacia*...
mangium seedlings, and other materials for tree planting but no technical support. Since then, many incentives for arboriculture programs have come from various actors and schemes.

In 1986, the peasants began to form peasant groups and established a village seedling plot (KBD/ Kebun Bibit Desa). The village seedling plot (KBD) supplied tree seedlings (i.e. mahogany, teak), and silk-cotton tree/ Ceiba pentandra and lamtoro gung/ Leucaena leucocephala) for people in the village. In 1986 there were four peasant groups but the number has steadily grown. In 1989, one of the groups (Percabaan peasant group) received an award at district-level for self-initiated re-greening program.

In 1992 the peasant groups collaborated with the World Bank to make seedling plots for Multi Purpose Tree Species/ MPTS (e.g. stink beans/ Parkia speciosa, melinjo/ Gnetum gnemon Linn, and cashew tree/ Anacardium occidentale) that can better fulfil the short-term needs of the people. The seedling plot project involved students from the primary and high schools and women’s groups; it not only provided for the MPTS seedling needs of Selopuro Village but could also supply those of other sub-districts such as Pracimantoro, Karang tengah and Sendangsari.

Over more than five decades, the vegetation of Selopuro Village has changed significantly, from sparse bush cover to forest with almost 50 percent of its area covered by teak and mahogany. From 1999 to 2002 many external actors from local government, universities, NGOs and other organisations, including ICRAF, CIFOR, Brawijaya University, the Indonesian Eco-Labelling Institute (LEI) and NGOs such as PERSEPSI were keen to repeat the success of private forestry in Selopuro Village. They hoped to apply its model for developing private forests in other regions. These external actors have been conducting research, facilitating comparative or exchange scheme studies and implementing programs that derive from the sustainable forest management at Selopuro Village.

According to some research and comparative studies, PERSEPSI and the Indonesian Eco-Labelling Institute (LEI) saw the importance of supporting Selopuro Village’s application for Certification of Sustainable Forest Management. The certification
project began in 2003 and was funded by WWF for 18 months. Finally in August 2004 Selopuro Forest Management Unit/ Selopuro FMU, as a single unit comprised of all peasants in Selopuro Village, was granted Certification of Sustainable Forest Management from LEI. After Selopuro was granted the certification, it supplied certified timber for international trade in 2005. PERSEPSI, supported by LEI and WWF, offered another source of income by assisting a home industry to produce furniture and handicrafts made from unused certified timber products. The process and outcome of the forest certification program will be explained below. The dynamics of local conditions, including tree planting initiatives, are summarised in Table 5.4.

**Table 5.4: Tree planting initiatives in Selopuro Village**

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960-70</td>
<td>Food scarcity, drought, and famine.</td>
</tr>
<tr>
<td>1965</td>
<td>Individual initiatives to plant trees began, but no formal peasant groups were in existence.</td>
</tr>
<tr>
<td>1976</td>
<td>Government implemented the MALU project by distributing <em>Acacia</em>, <em>Albizia</em>, and <em>Leucaena leucocephala</em> seedlings but provided no technical assistance.</td>
</tr>
<tr>
<td>1986</td>
<td>Government implemented ‘village seedling plot’ (KBD) project. The first formal peasant groups were established to conduct the KBD project.</td>
</tr>
<tr>
<td>1992</td>
<td>Collaboration between peasant groups and World Bank to make seedling plots of MPTS.</td>
</tr>
<tr>
<td>1992-2003</td>
<td>Several organisations (e.g. ICRAF, CIFOR, Brawijaya University, Indonesian Eco-Labelling Institute /LEI and PERSEPSI) were keen to repeat the success of private forestry in Selopuro Village.</td>
</tr>
<tr>
<td>2003-2004</td>
<td>PERSEPSI assisted with preparation for applying for a Certification of Sustainable Forest Management with funding from WWF.</td>
</tr>
<tr>
<td>2004</td>
<td>Selopuro FMU was granted Certification of Sustainable Forest Management.</td>
</tr>
<tr>
<td>2005</td>
<td>First international trade of certified timber from Selopuro. PERSEPSI, supported by LEI and WWF, assisted a home industry to produce furniture and handicrafts made from unused timber products.</td>
</tr>
<tr>
<td>2005-now</td>
<td>More external actors are interested to learn from the Selopuro case and more projects are planned and implemented for Selopuro FMU.</td>
</tr>
</tbody>
</table>

**Ecological, economic and social dynamics**

During the last five decades, inhabitants of Selopuro Village have been experiencing ecological, economic and social change. In the 1960s, before tree planting activities began, Selopuro Village was a hot and barren location. Thirty years after the instigation of tree planting initiatives, people in Selopuro Village started to recognise the significant ecological differences. They felt that their village was cooler at midday than 30 or 40 years
ago. Since they have planted many trees around their gardens, their homes are well-shaded now (n= 28).

Some people also acknowledged that there are more water sources than before. They used to depend on one water source at Soko, which is located at west Selopuro Village. Now, debits from water sources at Soko and other places (e.g. those at Gentungan, Pancuran, Salam-salam, Kedung lempung) are increasing. There are also more new water sources in the village. Moreover, some people realised that trees can trap the rainfall run off and reduce erosion. Now, less soil is washed away by rainfall (n= 26).

Since Selopuro Village land has been covered by trees, many wild animals (e.g. monkeys, deer, chipmunks, wild pigs, and snakes) have moved from the state forest to their forest. These animals often eat their food crops, and their numbers are increasing except for the bird population, which is decreasing; indeed, some species have become rare due poaching of birds to sell on the market (n= 20).

Along with tree planting activities in the village, the livelihood strategy of peasants has also changed. In the 1960s they only cultivated cassava and other food crops but, on realising that most of their lands are not suited to agricultural plants, they started to plant fodder trees in the 1970s (e.g. Leucaena leucocephala). Then, the Leucaena leucocephala was attacked by a pest, so they planted more teak and mahogany. In the 1990’s they were given incentives to plant multipurpose tree species (MPTS) to support their short-term needs. Recently, the price of mahogany dropped, so they logged and sold it as firewood, and planted fast growing trees (e.g. Albizia) as a replacement. To fulfil their short-term needs, they grow spices and food crops that can grow in the under storey (n= 26).

In Selopuro Village, over more than five decades, trees have become an important way to enhance residents’ livelihood. The fodder trees support their livestock production system. They can also use tree branches for firewood. The forest has supported the peasants’ effort to give a better education to the younger generation (n= 26), and provided more job opportunities (e.g. as timber traders, tree loggers, truck drivers, saw-millers and sawmill labourers). An elderly male peasant (65 years old) illustrated the economic changes that have resulted from tree planting activities:
“When I was a kid, most kids did not go to school. There are only two people in the village that went to high school, including me. Most of them were illiterate. Even fulfilling daily needs was difficult, so it was very hard for parents to finance their child’s schooling. Now, our trees have grown big enough and many of them are ready to be harvested. We rely on trees to support our child’s education. The younger generation in Selopuro Village have had a better education than us, the old generation. With better education they can have more job opportunities as government employees or factory labourers. So they do not have to depend on our lands that are less for each person due to population growth.” (Interviewee A4)

Since the peasants’ success in changing barren land into forest has been publicised, many actors from Indonesia and overseas have been paying more attention to Selopuro Village. For example, they have given incentives to help sustain the forest and enhance local people’s livelihood. One of these came from the district government in 2000 to meet residents’ crucial need of water by helping them to build a water storage that could be connected to each house. Before the infrastructure was built residents had to walk to the water resource and back approximately two hours’ journey. It consumed time and energy (n= 23), as one male peasant (49 years old) recalled:

“We used to walk a long way to get water from the source. We had to go at night if we did not want to wait in a long line. It was hard, especially during the dry season when water debits had to be smaller. Now we have plenty of water in our houses. We also have more time and energy to do something else that is productive.” (Interviewee A14)

The peasants used to have a reciprocal work arrangement and worked on each other’s land without payment. They formed working groups that consisted of five to ten people. The working groups then developed a schedule for every member. Now, however, less people are willing to work on a reciprocal basis. They considered it would be unfair for a peasant who had less plots to work on another’s larger plots. The other reason is their need of cash. Thus they prefer to spend their time doing off-farm paid activities rather than unpaid work (n= 4). A peasant explained the social change:

“I used to have a working group, but now it is difficult to ask people to form one group.”
Working groups are good for maintaining social cohesion, but now social cohesion has decreased. We still work without payment on special occasions as a working bee to repair or build infrastructure.” (Interviewee A16)

Livelihood strategies of households
Several factors (e.g. land access, labour supply, financial capital, knowledge, off-farm activities, market access, organisations’ programs and policies, and infrastructure development) have been influencing livelihood strategies at Selopuro Village. Based on those factors, local people would decide how to fulfil their livelihood needs. However, as their circumstances are unique, their livelihood strategies are also distinguishable from those of other communities.

Based on land ownership and authority, land at Selopuro Village can be categorised into three types: first, state production forest that is managed by PERHUTANI; second, land under the authority of local people; and third, land at Ngancar water reservoir that is owned and managed by the district government. The district government rents out some areas at the reservoir to local people for seasonal crop plantation. Some people at Selopuro Village can access their former plot at Ngancar reservoir (the land they used to live on before they were relocated to Selopuro Village) for free, and cultivate it during the dry season when the water level decreases. Based on the land use system, their lands can be categorised into home garden (pekarangan), dry field (kebon/tegal) and paddy field. They usually plant multiple plant species between trees, including MPTS, agricultural crops so that it is difficult to measure what proportion of certain plants is cultivated on their land.

The status of the land can influence peasants’ decision about what to plant. They rarely plant trees, either MPTS or other slower-growing varieties, on rented lands or land in the water reservoir area. If they plant trees on rented land, they usually plant a small number of ‘medium-term harvest trees’ (e.g. Albizia) and MPTS. Rented lands can be used for a limited time, so they consider it useless to plant something that somebody else will harvest. Moreover, they prefer to plant food crops on rented land and in the water reservoir area because food crops are short-term harvest plants; also the soil of the reservoir area is fertile and good for the food crops (n= 26).
The younger generation of Selopuro Village can establish their own household when they inherit land from their parents. However, the rising population, limited land availability and reduced land access devalues their inheritance. Moreover, better education, less interest in the agricultural sector, and more job opportunity in urban areas, are reasons for young people to seek work outside their village. From 18 interviewees’ children in Selopuro Village (16 up to 25 years old), only 5.5 percent were involved in farming-forestry activities.

Since the industrial sector has absorbed much of the labour force from agricultural areas, it is mostly the older generation who work in the agricultural sector. Yet the ageing process deprives the older people of strength and energy needed to cultivate their lands. Therefore, agricultural labour is becoming rarer and more expensive; while the supply is adequate for now, over the next ten years it might be difficult to mobilise enough labour in the agricultural sector. The trend towards a decreasing agricultural labour supply has motivated people at Selopuro Village to plant more trees, as they are low maintenance and not labour intensive compared to agricultural plants (n= 6). A male peasant (57 years old) explained how his decision to plant trees was influenced by the labour supply:

“A human being is similar to a machine. The older you are, the less power you have. Now I can hoe, let’s say 500 m² per day. Ten years from now, maybe I can only do a quarter of that. That is why I plant trees. They can be my pension income when I cannot work hard anymore.” (Interviewee A4)

For peasants at Selopuro Village, land size is not a factor that motivates them to plant trees. As long as the land is not fit for food crops, they will plant trees on it. Their experiences of the natural limitations of their land have taught them that the rocky, limestone soil is better for growing trees than agricultural plants. From a trial and error process lasting more than five decades, they have learned what kinds of plants are suitable for their land, and should be planted in a certain season. To fulfill their daily and short-term needs, they grow food crops, spices and MPTS. During the dry season they usually plant cassava, maize, and beans on lands that are flat and have a deeper soil layer. During the wet season they replace these crops with rice. On the sloping areas and terrace edges they prefer to plant teak, mahogany, Albizia, Acacia, and other MPTS to strengthen the
terraces and conserve the soil. In planting the trees, however, they cannot implement forestry theory about inter tree distance. They only plant the trees in the soil lying between rocks so distance between trees is random and forest density varies.

Some peasants are taught at school about the importance of trees for ecological balance. They have also experienced the ability of trees to absorb rainfall, preserve it and allow for increased debits at water sources. Since Selopuro Village has become greener, the debits at the water sources have been increasing without causing a shortage. There are also several new water sources beneath the large trees. This experience motivates them to grow more trees (n= 7).

Economic considerations are important in deciding what to plant. The residents need to survive and their lands are vital for their growing family. Thus they choose plants that can provide as much benefit as possible for their family, both now and in the future (n= 25). One peasant explained his reason for planting teak:

“One of my reasons for planting teak is as an investment for my children and grandchildren. Cash savings can be used up quickly, but standing teak trees are more valuable, especially for the next generation, because the price of teak will not drop. Besides, the longer until the teak trees are harvested, the better the quality of the teak.”

(Interviewee A13)

Market conditions also influence the peasants in Selopuro Village in deciding what kind of plants to choose, i.e. those that are more profitable. Recently the price of mahogany dropped, so they logged it to sell for firewood and replaced it with teak and Albizia. They are sure that even though teak is a long-term tree crop, its price will be stable and gradually increase. It is evident that economic factors are a key influence in livelihood strategies (n= 20).

The external actors’ interventions (e.g. the government MALU/Mantri-Lurah project, government’s livestock program and rice supply program for poor households) have both directly and indirectly influenced the farming system of peasants of Selopuro Village. The direct influences are; for example, tree planting programs and food crop or
agricultural incentives. An indirect influence from these organisations comes from incentives for schemes generating alternative income from non-agricultural and forestry sectors (e.g. livestock incentives, small business development). Incentives for households to find alternative income derived from shorter-term harvest plants were crucial for the peasants, since long-term harvest plants dominated their land use. The support from external actors for peasants to earn alternative income might reduce their dependence on trees for their daily needs which in turn might encourage them to plant more trees and rely less on logging.

PERSEPSI is one of the NGOs that has provided some support for the peasants in Selopuro Village. The first PERSEPSI program in the area was aimed at empowering poor households. Through the program, PERSEPSI provided livestock for breeding purposes, veterinary medicine and training in livestock rearing. PERSEPSI also offered an alternative income source to poor households by providing spice and root seedlings that could be planted below the tree canopy. PERSEPSI also facilitated training in making spices into partially processed products. The other PERSEPSI program, operated independently of these schemes, was the forest certification program. PERSEPSI assisted the peasants to gain certification of sustainable forest management and sell the certified timber, so they could earn a higher price and more profit (the details of the PERSEPSI interventions will be explained below).

Long-term harvest trees and limited amounts of food production that are only sufficient for self-consumption have motivated them to find other sources of income that can pay for daily needs (e.g. electricity, wedding gifts, education). For the peasants of Selopuro Village, off-farm activities are the main source of cash. The younger generation usually work in urban areas but the older generation usually seek off-farm employment in their village (e.g. as a small-scale grocery retailer, teacher, builder, handyman, government employee, logging labourer, farm labourer, or timber trader). For them, off-farm activities can be a motivation to plant more trees and not to log their existing trees, because they are better able to fulfil their daily needs (n= 25).

Livestock is also an important source of life insurance for them. For urgent needs, they prefer to sell livestock rather than trees. Thus the more livestock they have, the less
they log trees. If their urgent needs can be satisfied by selling livestock, they tend to grow more trees without worrying about long-term harvest periods. Besides, livestock need food, which has motivated them to grow fodder plants such as lamtoro gung/ Leucaena leucocephala, grass, and kaliandra/ Calliandra haematocephala (n= 18).

**Household incomes and expenses**

The peasants in Selopuro Village derive non-cash income from food crop products, but only peasants with larger plots sell food products to get cash income. Peasants with limited land consume their food crop products themselves, reserving some to use as wedding gifts or meet other social obligations (n= 18).

Cash income is mostly generated from off-farm activities (e.g. working as a teacher, village government employee, trader, handyman, grocery seller, builder, or agricultural labourer). They spend cash on food that cannot be obtained from their lands (e.g. oil, sugar, salt, meat etc.), on paying utility and tax bills, and on social obligations such as wedding gifts (n= 25). They also spend some of their cash income on food production inputs (e.g. food crop seedlings, fertiliser, pesticide, and farming tools) and to add more capital value to their assets (e.g. livestock, house renovation). Not many of them deposit their money in the bank because according to them banking is a complicated process, from which they only gain a small amount of interest, and for which they are obliged to pay monthly bank fees (n= 3).

For urgent needs (e.g. medication, education, funerals, coping with harvest failure and filling seasonal harvesting gaps), their preferred source of cash income is borrowing money from relatives or neighbours. If the amount borrowed is not enough or nobody lends them money, the usual alternative is selling livestock. If they need US$10 to US$50, they sell a chicken or duck. If they need between US$50 to US$100, they sell a goat. To obtain more than US$100, they sell a cow. If there are no other sources of available cash or if the other sources are unable to fulfil their needs, they log and sell trees as a last resort. Even though the trees are ready to be harvested, they usually log them for urgent needs only. Thus trees are the basis of coping strategies times of cash shortage, and are sold as the last resort when there is no money left from selling agricultural products, or from off-farm activities (n= 30). One male peasant (49 years old) explained the reason for
logging trees:

“I know that my timber is ready to be harvested, but why should I sell it if I do not have urgent needs, and if I still have cash money from other sources? If I sell the trees for large amount of money, I am worried that I will spend it on fancy frivolous items that are not really important. Then when someday I really need cash for something urgent, somebody gets sick for example, where can I get the money? Money is easy to lose, but trees are not.” (Interviewee A14)

The expense of wedding gifts is a particular burden in Javanese culture, as explained above and illustrated with the following comment:

“Living costs in the village are cheaper than those in town. We do not need fancy things. Our sources of income are enough for buying basic goods but will not be enough for social obligations, especially wedding gifts. How can I change it? It is part of our customs and it is important for social cohesion. At least in return, we will receive a lot of support from family and neighbours when we celebrate our children’s weddings. It is just like long-term saving.” (Interviewee X2)
An example of one household’s livelihood strategy is described in Box 5.2.

**Box 5.2:** Example of one household and its livelihood strategies in Selopuro Village

**Members of household**
The household has 3 members:
- Father, aged 49 years; highest education level, year 9;
- Mother, aged 44 years; last education level, year 6;
- Daughter, aged 11 years; present education level, year 11.

**Land access**
- Home garden: 3,185 m² (land status: owned; land use: teak, mahogany, albizia, acacia).
- Dry-field: 7,300 m² (land status: owned; land use: teak, mahogany, acacia).
- Dry-field: 50 m² (land status: rented from district irrigation service; land use: cassava, maize).
- Dry-paddy field: 50 m² (land status: rented from district irrigation service; land use: rice).

**Time allocation for farming activities**
Time allocation for farming activities depends on various purposes/seasons:
- During planting: the father and mother spend 9-10 hours per day for a week;
- During harvesting: the father and mother spend 9-10 hours per day for three days;
- During cultivation: the father spends 5 hours per week;
- Daily routine: the father spends 1-2 hours daily to collecting grass for livestock
  (The daughter does not get involved in the farming activities).

**Sources of income**
The household has several sources of cash and non-cash income:
- Off-farm activity: 70 percent of cash income is from the father’s off-farm work as a tailor;
- Cassava & maize: 30 percent of cash income is from cassava and maize;
- Rice: the household plants rice for self-consumption and wedding gifts and do not sell it;
- Livestock: the household has 6 goats (the goats are for additional and alternative income, and they are sold when income from tailoring and food crop is not enough for the household’s daily or urgent expenses);
- Trees: in the household’s home garden there are 293 teak trees with total volume 44.55 m³ and 306 mahogany trees with total volume 12.74 m³. The biggest teak has a circle line of ‘circumference’ about 170 cm and some trees are ready to be harvested, but the household does not want to log and sell the trees unless the timber is needed to build or renovate a house; or for cash or urgent needs (medical, education and funeral expenses). The household only sells trees when other sources of income are not enough to fulfill urgent needs.

**PERSEPSI** has encouraged the household to log mature trees that are ready to be harvested and plant new trees as replacements, so every year the household can harvest some. However, the household insists on keeping the trees for future urgent needs and as an inheritance for their child. The price premium for certified timber of 15-30 percent compared to uncertified timber has not motivated the household to log and sell the trees.

*Source: Interviewee A14, April, 2011.*
### Table 5.5: Economic profile of interviewees

<table>
<thead>
<tr>
<th>Village</th>
<th>Average of estimated monthly income from agricultural crops, estate crops and non-timber forest products *</th>
<th>Average of estimated monthly income from off-farm activities **</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bageng Village (n=34)</td>
<td>IDR 1,570,000.00</td>
<td>IDR 2,240,000.00</td>
</tr>
<tr>
<td>Selopuro Village (n=31)</td>
<td>IDR 700,000.00</td>
<td>IDR 1,825,000.00</td>
</tr>
</tbody>
</table>

Note: IDR 10,000.00 = Au$1.00 (approximately at November 2013).

Source: Interviewees at Bageng Village (n=34) and Selopuro Village (n=31).

* = Estimated monthly income of peasants from timber in Bageng Village: It is difficult to estimate monthly income from timber sales as most tree plantations grown by interviewees are still at an immature stage and not ready to be harvested. The trees are planted as a land border and cover crop for coffee plants.

** = Estimated monthly income of peasants from timber in Selopuro Village: It is difficult to estimate monthly income from timber as sales occur irregularly for most interviewees, usually as house materials and other infrequent needs are to be met (e.g. education, health, wedding, funeral cost).

### 5.3.2 Peasant groups at Selopuro Village

Informal peasant groups (i.e. without a specific name or authority structure) have existed since the 1960s but have only focused on agricultural issues and activities. Since 1971 when external actors started to implement their projects at Selopuro Village (e.g. the UN World Food Programme of eucalyptus plantation and government plantation program of Acacia, teak and mahogany, the groups have become more organised and have included forestry issues. To be able to work with many peasants effectively, the external actors required the establishment of formal peasant groups with a board (e.g. chair, secretary, and treasurer) to govern their members.

The first formal peasant group established at Selopuro is called ‘Percabaan Peasant Group’. Percabaan means a place for thinking, meditation and learning. The group has been playing an important role in forestry development, thereby coordinating the peasants to build terraces and plant trees based on a reciprocity system. Due to population growth increasing the number of peasants and the size of the area under cultivation, the group was divided into several peasant groups. Now, there are eight peasant groups in Selopuro.
Village and each group covers one sub-village.

Membership of peasant groups is flexible. Any local peasants can be members, no matter their plot size, gender, etc. Moreover, peasants who live in a certain sub-village can be members of a peasant group of another sub-village because a peasant might have several plots situated in different sub-villages. While membership of peasant groups is optional, most people decide to join them when they get married and receive their own household card. Even if they are still living with their parents, they are eligible for a household card and membership of the peasant groups.

For peasants in Selopuro Village, the main reason for being a member of a peasant group is social necessity. Peasant group meetings are opportunities to make contact with other peasants and build social cohesion. They do not want to be considered anti-social and thus excluded (n= 25). The next most important reasons are to qualify for seedlings, pesticide and fertiliser incentives from the government and other institutions (n= 29). These incentives are only distributed through peasant groups, so it is difficult for a non-member to obtain them.

Another reason to attend the group meetings is to access the microfinance service, syndicate, and rental facility, provided by the peasant group. The peasant groups manage small-scale savings and credit facilities for members (for amounts of less than US$400) this capital can be derived from their incentive payments, fixed contributions and obligatory contributions, as well as from their savings. It is only microfinance but it helps the members to obtain cash to meet their farming expenses or for urgent needs. The interest rate for credit is 3 percent per year, and the profit of this facility is distributed to all members at the end of each year. Some of the profit is allocated for buying party equipment (e.g. chairs, tables, plates and glasses) that every member can rent. The profit from this rental is added to the peasant group’s capital. The groups also organise ‘arisan’ (ROSCA/ Rotating Savings and Credit Association) to which members contribute money to create a cash pool from which prize money will be drawn. The winner receives all of the contributions to the syndicate. At the next meeting each of them including the previous winner, is obliged to contribute the same amount of money, which provides the prize pool for the next winner. The process is repeated until all members have been winners.
The board of every peasant group consists of a head, secretary, treasurer, and several divisions. Since the groups engage in both farming and non-farming activities, the divisions include food crop, livestock, fishery, dry land, seedling, environment, property and public relations. While peasant groups in the 1970’s played a crucial role in forestry activity on individual plots, they have mostly been replaced by households who decide how many trees will be planted in which areas, as well as how many will be logged and where timbers will be sold. However, these groups are still involved in building infrastructure and social cohesion. When a certain project derived from an incentive has ended, peasant groups coordinate a working bee in the village using self-reliance funds to build infrastructure (e.g. a water tank, village road, or fence repairs). Sometimes field staffs from the agriculture department and district forestry service come to the meeting to share information but only occasionally and usually relating to a certain project. Thus, other reasons for local people to attend peasant group meetings are to hear information about working bees that will be conducted and about agroforestry.

The elected board members are usually people with relevant experience, government officials, or literate or elite residents of the village. They are elected as board members because they are believed to have initiative; also the capacity to organise a large group, communicate with external actors, and speak in public. Therefore, one person can be a board member for a long period of time even though peasant groups’ regulations state that elections for board members must be held every three years. For example, Ngudi Rejeki 2 group still has had the same head it had in since 1975. The members do not want to risk electing non-elite residents even though they may be suitable, and want to be on the board (n= 20). The well-educated younger generation is certainly capable of producing board members. However, as mentioned before, they prefer to work in cities. Moreover, it is the board which decides the meeting agenda, with the result that members are reluctant to ask questions or raise issues that are not related to the agendas (n= 10) because members believe the board members with their superior education know better than ordinary peasants.

When PERSEPSI implemented its forest certification program in 2003, it reformed the eight existing peasant groups, which became known as the eight groups of Peasant
Community for Certification (KPS). Technically KPS groups are not significantly different to peasant groups. Each KPS has the same board structure, members and regulations as the peasant group from which it was formed. The KPS concept merely emphasises that each KPS is a group of peasants that are concerned about and practises sustainable forest management in their areas. PERSEPSI also established the Forum of Peasant Community for Certification (FKPS), to coordinate KPS groups at village level. Further explanation regarding KPS and FKPS will be provided below.

The peasant group or KPS is one of several organisations in the village. These groups have usually been established to implement specific projects promoted by certain institutions. When the project has been completed, the group continues in readiness for the next possible project so as to receive any future incentives. One person may be involved in more than one of these groups, listed below:

- a. The Village Development Organisation/ IDT, to implement the IDT program whose members are heads of households/ men;
- b. The Sub-Village Cooperative, providing microfinance for sub-villages, whose members are heads of households/ men;
- c. The Youth Group/ Karang Taruna, whose members are local youth and which coordinates sport and cultural activities/ events;
- d. The Household Welfare Group/ PKK, whose members are housewives/ women;
- e. The Poor Household Group/ Keluarga sekeng, formed by PERSEPSI for poor households;
- f. The Livestock Group/ KUBE, formed by the government to coordinate the livestock incentive program, whose members are households which have received livestock incentives; and
- g. The Women’s Group/ P2WKS, whose members are housewives/ women.

Even though these projects have finished, the groups involved in it still conduct routine meetings to organise microfinance activities. However, some groups become inactive after their project has been completed. In any month, only 10 days are free from group meetings, so that residents become bored with attending them.
5.3.3 The roles of PERSEPSI at Selopuro Village

**Poor households program**

In 1998 PERSEPSI conducted a project aimed at economic empowerment of dry land peasants that was funded by FADO/ VeCO from Belgium. Then PERSEPSI integrated its project with the Ministry of Forestry labour intensive scheme to create employment in the forestry sector. The project focused on empowerment of poor households consisting of forest-dwelling peasants. Members of peasant groups in the village selected the poor households, based on their own criteria, resulting in a total of 90 poor households from the eight sub-villages being selected. Then, PERSEPSI formed a poor households group, the members of which elected a board. To enhance the livelihood of group members, PERSEPSI provided several incentives and forms of technical assistance to promote alternative income sources:

1. **Goat incentive.**

   PERSEPSI provided 18 goats (i.e. every sub-village received two to three goats) to be passed from one household to another after breeding has occurred. PERSEPSI also gave an incentive for the 10 poorest households to start a goat stall, as well as for livestock medication, and training in how to use it. After two years, PERSEPSI’s assistance ended, resulting in the goats’ transferral to another village. One member of a poor household group in Selopuro Village can still treat sick livestock but, while the group still has a meeting every 35 days, it now has only six members actively attending to access microfinance; and

2. **Spice and food crops below tree canopy**

   PERSEPSI is supplying spice seedlings and food crops that can be planted below the tree canopy. PERSEPSI is also providing training in making the spice and food crop produce into half-processed and processed products so poor households can benefit from value-adding. They continue to plant and consume these crops, and also sell them at the local market. However, they sell the raw products instead of the processed ones, due to the difficulty of marketing the latter.
Certification of sustainable forest management program

When PERSEPSI implemented the economic empowerment project for dry land peasants at Selopuro Village, it recognised that trees have been supporting dry land farming production systems for those peasants. During the economic crisis in 1998, many Indonesians struggled for survival but Selopuro’s inhabitants experienced no significant difficulty, indicating the potential of forestry to prevent peasants being further marginalised during economic downturns. Therefore, PERSEPSI considered that the development of the forestry sector for the village is an important priority. As forestry and the environment are subjects of public concern at the moment, PERSEPSI has promoted the development of the farming and forestry sectors. One related forestry development issue is sustainable forestry development through certification of sustainable forest management.

The idea of a certification program also resulted from discussions among PERSEPSI, other NGOs, manufacturers, the Indonesian Eco-Labelling Institute (LEI) and WWF about the opportunity to assist the certification process for private forest. LEI prepared the relevant systems, and provided an expert panel and Accredited Certification Body. WWF donated funding for the introduction of certification and establishing a market for the certified product. For this purpose, Selopuro and Sumberejo Villages received about US$2,800 from WWF. Every three-and-a-half years the certification institute monitors conditions in the certified forest, so that if they are inadequate, the certification will be withdrawn. The certification is valid for 15 years, after which every Forest Management Unit/ FMU must apply for renewal of certification; however, there is no guarantee that the second application will be approved.

Certification of Sustainable Forest Management became an important goal for PERSEPSI and other actors because:

a. Peasants could gain a price premium from selling certified timber of 15 to- 30 percent compared to uncertified timber. Thus the certification of sustainable forest has potential to improve the livelihood of peasants;

b. The recognition of sustainable forestry encourages peasants to maintain the sustainability of their forest, so that they can derive future benefit from selling environmental services (e.g. water, carbon trade etc);
c. It is important for accessing incentives and initiatives from many actors in support of sustainable forest management and enhancing the livelihood of peasants;
d. It would help manufacturers to source certified timber for their products; and
e. The certified forest could be a model for developing other water catchment areas.

According to one program coordinator of PERSEPSI (interviewee T 1), the benefits for the NGO in assisting FMUs to gain forest certification:

a. There is no economic benefit for PERSEPSI, because it is a non-profit organisation. PERSEPSI only gets operational fees from donors to conduct activities to gain certification;
b. PERSEPSI can continue its relationship with ‘the ground community’ who maintain the sustainability of their forest resources.
c. PERSEPSI can be a mediator, or develop business links, between timber owners and buyers; and
d. PERSEPSI gains more recognition especially from governments and other NGOs at the regional, local, national and international levels for its contribution in developing sustainable forestry. This publicity will attract other actors to form collaborations with PERSEPSI in its certification projects, which is important for the viability of PERSEPSI as an organisation.

The forest certification program conducted by PERSEPSI covered Selopuro and Sumberejo Villages, and operated from June 2003 to August 2004 with funding from WWF. The aim of the program was to gain recognition from the Indonesian Eco-Labelling Institute and thus worldwide acceptance of Selopuro and Sumberejo Villages’ Forest Management Units as practising sustainable forestry. PERSEPSI formed each Forest Management Unit/ FMU as one unit of forest management covering all peasants in the each village, because the group application is less expensive and more practical than an individual application.
The forest certification process consisted of several steps at Selopuro Village:

1. **Introducing LEI’s forest certification scheme to the peasants.**
   PERSEPSI broad cast information about forest certification before the project started. Even though people at Selopuro Village had practiced sustainable forest management since the 1980’s based on their local wisdom, they had not understood the linkage between their forest and global interests, as their view of the world was simple. Sustainability for their forest was important because trees were their safety net and an inheritance for future generations. They were not aware of the advantages of external recognition of sustainable forestry.

2. **Organisation and institutional reform.**
   The existing peasant groups of the eight sub-villages of Selopuro Village coordinated the production system for food crops, forest and livestock. PERSEPSI reformed them and thus they became Peasant Community for Certification Groups (KPS/ Kelompok Petani Sertifikasi). The KPS groups integrated their work on sustainable forest management based on the certification system. After the eight KPS were established, PERSEPSI formed the Forum of the Peasant Community for Certification (FKPS/ Forum Komunikasi Petani Sertifikasi) at village level. Each KPS group delegated some members to elect the board of the FKPS. The FKPS was formed to coordinate and strengthen efforts and initiatives by KPS groups within the Selopuro Forest Management Unit (Selopuro FMU) towards maintaining forest sustainability. This new structure also aimed at enhancing peasants’ livelihood by means of the certification system, and strengthening social cohesion among the groups at village or FMU level. In addition, the FKPS was formed to build linkages with other FKPS organisations to strengthen their position in domestic and international timber markets.

3. **Land and tree inventory.**
   A land and tree inventory is required procedure for pursuing certification. PERSEPSI commissioned the board of each KPS group to conduct the inventory in their area, a lengthy process that included listing the status and size of land, as well as the land use system of each household. The tree inventory surveyed the
kinds and number of trees for each household.

4. **Completion of required forms for applying for forest certification.**

PERSEPSI and the board of each KPS group collated all documents about the group’s profile, general history, history of forest management, rules of conduct, activity schedule, land inventory, land map, tree inventory and logging records.

After all required documents were submitted in August 2004, PT. Mitra Agung Lestari/ MAL, the LEI’s Accredited Certification Body, sent the expert team to examine whether the forest at Selopuro FMU was sustainable. There were 32 to 33 criteria to be used covering the three categories of social, production and environment aspects. Finally in October 2004 Selopuro FMU, together with Sumberejo FMU (the Selopuro neighbourhood), received ‘Community-based forest management certification’. This certification type is for management units of community forests in which an individual or community manages privately-owned, state, communal or customary forests for commercial and subsistence needs.

The FMUs that were assisted by PERSEPSI and were granted Certification of Sustainable Forest Management in Indonesia are:

a. Selopuro/ Wonogiri District : 260 hectares (2004);
b. Sumberejo/ Wonogiri District: 574 hectares (2004);
c. Four villages in Giriwoyo Sub-District/ Wonogiri District: 2434 hectares (2007);
d. Weru Sub-District/ Sukoharjo District: 1136 hectares (2007); and

After Selopuro FMU received Certification of Sustainable Forest Management, PERSEPSI made various efforts to help the peasants benefit from their certified forest and to develop other alternative income sources:

1. **Advocacy for peasants to join Bank Credit Scheme of Sustainable Forest Management/ Bank credit with tree stands as collateral security.**

This form of credit can be used for developing estate crop or farming. The microfinance mechanisms of peasant groups have not been enough to cover
members’ need of capital, so the Bank Credit Scheme of Sustainable Forest Management can be an alternative source. While this credit facility was started in 2008, only a small number of people use it. Indeed, some of the peasants interviewed did not know about it.

2. **Training.**

PERSEPSI provided training in maintaining and measuring trees. The participants in the training course were board members of KPS groups. PERSEPSI hoped they could share their knowledge with other KPS members.

3. **Establishing Certified Wood Management Unit and other organisations.**

Following Selopuro and Sumbirejo FMUs being granted Certification of Sustainable Forest Management, the two FKPS organisations formed the Certified Wood Management Unit (TPKS/ Tempat Penitipan Kayu Sertifikasi) to manage the harvesting and trading of certified timber from the FMUs on the certified timber market. PERSEPSI also developed the Alliance of Managers for Certified Forest (APHS), the members of which are FMUs that have received certification, such as Gunungkidul, Sumberejo, Selopuro, Giriwoyo and Weru. By this means supply shortfalls of certified timber in a certain area can be reduced, because members of APHS could produce enough timber.

4. **Market facilitation for certified wood and forest products.**

One of the forest certification benefits expected by the peasants is a price premium for certified timber. PERSEPSI and WWF linked the Selopuro FMU to the certified timber market, with the result that Selopuro FMU received orders for certified timber from UNICEF through Novica Co. Many other orders also came from European countries.

5. **Small-medium enterprise (SME) development.**

Another effort made by PERSEPSI towards enhancing the livelihood of Selopuro FMU members is SME assistance for processing unused timber products. LEI and WWF provided the tools to process the unused part of trees to create furniture and handicrafts. While the peasants usually sell logs, PERSEPSI hoped they could sell
processed timber and benefit from value adding. PERSEPSI also connected the local industry with buyers/ exporters in Yogyakarta province that export timber products to Hong Kong.

After Selopuro FMU had been granted forest certification, TPKS had been established, and connection to the certified timber market was made, the funding stopped and PERSEPSI ceased its involvement with the Selopuro FMU.

5.3.4 Changes after implementation of PERSEPSI’s pro-poor program and the forest certification program

In terms of the poor household program, participants derived benefit from it, mainly in the form of livestock incentives and training in the treatment of sick livestock. Some of the participants still breed the livestock, one of whom can treat them, so they do not have to ask a veterinarian for help.

Even though the poor households thought that PERSEPSI had made many efforts to improve their livelihood, they experienced difficulty in implementing and continuing its training in processing spices and food crops grown below the tree canopy. They still plant spices (e.g. turmeric, ginger, and lemongrass) and food crops (e.g. uwi, gembili, garut) but sell the raw rather than the processed form at the local market. According to some poor households, product marketing for the processed spice and food crops is the main challenge for them. PERSEPSI provided training in processing the crops but did not link them to the market. The poor households also realised their limitations, which are lack of persistence and focus, and inability to change their social paradigm from that of subsistence agriculture to entrepreneurial capitalism (n= 4).

After several training courses for poor households were completed, they utilised their knowledge. However, when the program ended, there were no efforts to ensure continuity and no monitoring or evaluation of the implemented program by PERSEPSI (n= 4).

“Our capability is limited. Just because training is conducted does not mean that we can apply it easily. We still need assistance to solve any possible challenges until we are ready to be independent. Many programs have a previously determined cut-off date without taking
In terms of forest certification program, there were no significant changes in peasants’ practices of tree cultivation after its implementation. Their supply of tree seedlings mostly came from those that grow naturally on their own land. They believe that tree seedlings grown from logged trees are of better quality and have a higher survival rate than those from the seedling nursery. During the wet season they usually move the seedlings that are more than one year old to less densely wooded areas. Their practice in planting does not follow the theory of a 2 m × 2 m inter-tree space. They plant seedlings among the rocks wherever the soil is relatively deep. For replanting, they have been following a common rule of the peasant groups that recommends at least ten trees be planted if one is logged.

There has also been no change in tree maintenance practices. They usually do not allocate a certain time every day for tree maintenance because trees do not need daily attention. They maintain their trees while tending their food crop, or collecting firewood or grass for livestock. They clear grass around the trees for livestock feed and cut branches for firewood. To fertilise their trees they use organic fertilizer (e.g. composted leaves from the forest floor). They combat tree pests manually rather than using chemical pesticides.

Since the Selopuro forest management unit was granted certification of sustainable forest management, there have been no significant changes in tree harvesting, even though the forest certification provides opportunity for the peasants to gain higher profits from selling certified timber. Tree harvesting in the area is still based on urgent need instead of tree age and diameter. Even though their trees are ready to be harvested, they would not log them if they did not require ready cash or still have other sources of capital. However, they would log trees when there were no other options to get cash, even though the trees were not ready to be harvested (e.g. diameter less than 20 cm). Thus, they only log tree in small quantities, occasionally, for urgent needs and as a last option (n= 30).

Although it is almost six years since the Selopuro FMU was granted the forest certification, the peasants at Selopuro FMU together with those at Sumberejo FMU have only been able to fulfil an order once and supply less than 4 percent of total domestic and
international demand. The peasants derived economic benefit from selling the certified timber through TPKS (at a price premium of about 8 to 15 percent over local timber), but it did not last long because overseas orders for certified timber required a large quantity of timber regularly. It is thus impossible for the people to meet the orders. Even though they would receive 15 to 30 percent more profit from certified timber, selling a large quantity of timber regularly is contrary to their values and style of sustainable forest management, as practised for more than four decades. Their trees are like life insurance or a safety net and an inheritance for the next generation. They are not ready to fully commercialise their plantation for gaining maximum profit (n= 29). They prefer to sell small amounts of timber occasionally (whenever there is an urgent need of cash) at the local market and local price. Timber supply and demand in Selopuro and Sumberejo FMUs are presented in Table 5.6 below.

Table 5.6: Demand for and supply of certified timber in Selopuro and Sumberejo Villages

<table>
<thead>
<tr>
<th>Year</th>
<th>Demand (m³ of timbers)</th>
<th>Supply (m³ of timbers)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Domestic</td>
<td>International</td>
</tr>
<tr>
<td>2001</td>
<td>20.0</td>
<td>0.0</td>
</tr>
<tr>
<td>2002</td>
<td>30.0</td>
<td>0.0</td>
</tr>
<tr>
<td>2003</td>
<td>35.0</td>
<td>0.0</td>
</tr>
<tr>
<td>2004</td>
<td>0.0</td>
<td>250.0</td>
</tr>
<tr>
<td>2005</td>
<td>60.0</td>
<td>300.0</td>
</tr>
<tr>
<td>2006</td>
<td>84.0</td>
<td>&gt;600.0</td>
</tr>
</tbody>
</table>


* = Production includes village use

During the six years following implementation of the forest certification program, there has been no change in timber marketing practices. Before Selopuro FMU received certification, the peasants sold their timber to local traders. Rather than selling the sawn timber, they sell tree stands to local traders, who estimate the volume of timber and offer a price quote after estimating logging costs, transport costs, the sale price to the first broker and possible profit. The transaction is then made, if the tree owners accept the price; however the tree owners do not really care whether the traders’ tree measurements are accurate or not, as they usually log timber to meet urgent needs. They only want to obtain cash as soon as possible and without engaging in a complicated process. When they want
to sell their trees, they usually contact certain local traders directly. If the tree owners sell their timber for urgent needs they usually do not have time to offer it to several local traders, so as to elicit the highest possible offer. Nevertheless, they choose the highest price if there is more than one trader offering a price at the same time (n= 25).

The peasants understand that compared to local traders, TPKS has some advantages: first, TPKS buys their trees as certified timber at a price that is higher than that of uncertified timber, while local traders buy it as uncertified; second, TPKS also eliminates middle men in timber marketing by directly connecting the tree owners with manufacturers, unlike local traders; and third, TPKS uses a more beneficial tree measurement method than do local traders. TPKS measures the tree diameter about 130 cm above ground level, but local traders measure it from about 200 cm from the ground or as high as their hand can reach. How TPKS shortens the marketing chain for timber is illustrated in Figure 5.2.

**Figure 5.2:** Various marketing chains for timber

![Diagram of various marketing chains for timber](source: Interviews with peasants in Selopuro Village (n= 21), April, 2011.)

Source: Interviews with peasants in Selopuro Village (n= 21), April, 2011.
However, despite the advantages offered by TPKS, since Selopuro FMU was granted forest certification the peasants still prefer to sell their trees to local traders. This preference exists for many reasons:

- Cash payments are made sooner by local traders than TPKS. Local traders can deliver cash payments to tree owners directly after measuring trees and calculating the harvesting cost, while TPKS cannot. To obtain cash from TPKS, tree owners must follow a longer process. Since TPKS has limited financial capital, it is obliged to wait until it receives money from manufacturers to be able to pay cash to tree owners (n= 25). The process for obtaining cash payment from and procedures for selling timber through local traders are described in Figure 5.3;

**Figure 5.3: Process for obtaining cash payment to tree owners from local traders**

![Process Diagram]

*Source: Interviews with peasants in Selopuro Village (n= 21), April, 2011.*

- The sale of timber to local traders occurs via less complicated procedures than that to TPKS. If tree owners sell timber to local traders, local traders will complete all documents, but in the case of TPKS, tree owners must follow procedures in order to complete the documents. They need to inform the head of their peasant group, who then informs TPKS. TPKS notifies PERSEPSI who contacts the manufacturer. If the manufacturer agrees to buy the timber, PERSEPSI contacts
TPKS. TPKS then measures the tree/s, hires labour, vehicles, and tools for harvesting. Along with the tree owners it completes all required documents. The manufacturer makes cash payment after receiving the timber. Thus the TPKS would deliver cash payment to tree owners after receiving money from the manufacturer (n= 23). The process for obtaining cash payment from, and procedures for, selling timber through TPKS are described in Figure 5.4;

**Figure 5.4: Process for obtaining cash payment to tree owners from TPKS**

- Moreover, local traders can buy trees of any size, or quality, and any quantity of timber, while TPKS prefers to buy a certain size, quality and quantity according to the manufacturer’s requirements. Since it sells certified timber directly to manufacturers, it is impossible for TPKS to trade in small quantities of small-sized, low quality timber. If it had enough financial capital, TPKS might be able to buy small quantities of trees, make cash payments directly to tree owners, and harvest the trees later when they provide adequate timber to meet manufacturers’ orders. However, it lacks capital since repaying a loan from PERSEPSI about US$500 (n= 26); and
TPKS supplies the demand for certified timbers from manufacturers that require a regular supply, but it is difficult for peasants to fulfil such a demand since they prefer to sell their timber only occasionally based on urgent needs. Therefore they prefer to sell their timber to local traders who do not require a regular supply of timber (n= 23). Thus, both TPKS and local traders have advantages and limitations, which are summarised in Table 5.7.

Table 5.7: Comparison between TPKS and local traders

<table>
<thead>
<tr>
<th></th>
<th>TPKS</th>
<th>LOCAL TRADERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advantages</td>
<td>TPKS may offer a higher price because it:</td>
<td>• Local traders take less time to deliver cash payment to tree owners, because the cash is given directly to the tree owner after local traders measure trees and estimate the harvesting cost;</td>
</tr>
<tr>
<td></td>
<td>• buys timber as certified timber, with a price premium 15-30 percent over uncertified timber;</td>
<td>• it is possible for local traders to buy small amounts of timber from tree owners, since local traders do not sell it directly to manufacturers; and</td>
</tr>
<tr>
<td></td>
<td>• shortens the marketing chain, by linking the tree owners to manufacturers; and</td>
<td>• local traders can buy it in any condition, since they sell to the local market, that can accept timber of any quality.</td>
</tr>
<tr>
<td></td>
<td>• uses more beneficial timber measurement, by measuring tree diameter about 130 cm from the ground.</td>
<td></td>
</tr>
<tr>
<td>Disadvantages</td>
<td>• TPKS uses a longer process for cash payment to tree owners, that passes on the manufacturer’s payment for the timber;</td>
<td>Local traders may offer a lower price because local traders:</td>
</tr>
<tr>
<td></td>
<td>• TPKS is more suitable for tree owners who sell large amounts of timber, since it sells directly to manufacturers that usually need bulk quantities; and</td>
<td>• buy timber as uncertified timber;</td>
</tr>
<tr>
<td></td>
<td>• TPKS prefers to buy high quality of timber, since it sells to manufacturers that prefer to buy such timber.</td>
<td>• use a longer marketing chain from tree owners to manufacturers via wholesalers who may sell to larger wholesalers; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• use less beneficial timber measurement by measuring the tree diameter about 200 cm from the ground, resulting in smaller diameter than the measurement used by TPKS.</td>
</tr>
</tbody>
</table>

Source: Interviews with peasants (n= 19) in Selopuro Village, April, 2011.

After receiving the certification PERSEPSI assisted local people to establish a handicraft home industry, as mentioned above. This initiative started in 2006, with eight young people from Selopuro Village as employees. They were trained by PERSEPSI and received a daily wage within one year. Management of the business was handled by PERSEPSI, which developed a link between the home industry and PT Green Living. PT
Selopuro FMU has become more widely acknowledged. Many external actors and organisations from Indonesia and other countries have been interested to learn from the Selopuro case, to seek any possibilities to enhance

“Our human resources are not enough to produce high quality furniture. The product standard of Java Furni was too high to reach. If Java Furni was not satisfied, we had to fix the rejected product. The payment was based on the amount of furniture items accepted and there were no payments for fixing the rejected products. Fixing the rejected furniture means working twice as hard to get the same amount of pay. During our collaboration with Java Furni, many products (about 25-30 percent) were rejected and returned. It was hard for us. My friends who worked for the home industry now work in town for a higher salary.” (Interviewee X1)

Every KPS still has a routine group meeting every 35 days, the main reason for which is to participate in the microfinance facility run by the group (n= 30). Since Selopuro FMU was granted certification, FKPS has held a meeting only during the first two years. From that time until now, there have been no activities or meetings held by FKPS. Selopuro FMU still acts as a forum but has not sought legal status as a cooperative because it would result in peasants to pay tax whether there were any transactions of certified timber or not. On the other hand, establishing a legal status for the FMU is important for becoming an equal entity with other entrepreneurs in the certified timber market.

Since being granted the certification, Selopuro FMU has become more widely acknowledged. Many external actors and organisations from Indonesia and other countries have been interested to learn from the Selopuro case, to seek any possibilities to enhance
the livelihood of peasants. Several organisations have also implemented re-greening or tree plantation programs in the area. However, at this stage they do not need tree seedlings, since their lands are now well-wooded. What they need more are livestock, funds or other incentives to support their short-term needs (n= 5). One of the peasants accused these organisations of implementing tree-planting programs as a public relation exercise.

“What our forest has been there in such a good condition, many organisations have tried to implement their programs in our village by providing tree seedlings. Our village is already well-wooded and there are no spaces to plant the seedlings. We keep saying that we prefer other incentives but they insist on implementing tree planting programs such as the Government Land and Forest Rehabilitation program in 2007 and CSR programs by other organisations. So we only planted small amounts of trees in the border of our plots, but they put a sign board on it and claimed that the forest is part of their projects. After receiving certification, many more organisations have claimed the forest as part of their projects. Come on, we made our forest. We peasants are only treated as objects. Other people tried to benefit from our hard work. It hurts my feelings.” (Interviewee A27)

Discussions with the head of Selopuro FPKS 12 months after my field work period indicated that there had not been any substantial changes to the implementation of the NGO’s community forestry program in Selopuro Village.

5.3.5 Opinions of peasants about PERSEPSI and its program

In comparison to the ordinary members, the boards of peasant groups know more about PERSEPSI and its program in Selopuro Village, even though not all members of the board have detailed knowledge (n= 7). Only some of the board members understand the aim and mechanism of the certification (n= 4). The remainder know only that officials from PERSEPSI attended their group meetings and would help them to gain forest certification. Some of them could explain that certification is recognition for having managed the sustainability of the forest (n= 4). The most important benefit of forest certification to them is the higher price they could obtain for their certified timbers (n= 26). One member of a peasant group stated what he knew about certification:

“I do not know what FKPS and TPKS are. PERSEPSI explained about certification once. It was too difficult for me to understand the explanation. I did not pay any attention and it
happened several years ago. I have already forgotten it.” (Interviewee X4)

The boards of peasant groups were more actively involved in the process of certification than the members. They engaged in some training in tree measurement, carried out land and tree inventories, and prepared documents needed for certification. By contrast, the ordinary members do not know why their trees are marked and counted. Nor do they care whether they knew anything about certification before the program was implemented, or should be involved in the certification process. The most important priority is ensuring the board and PERSEPSI do not log their trees (n= 20). However, the members also realise that they are not as important as the board (n= 6). One member of a peasant group explained why he does not know much about certification:

“We are just members and we are not important people. We do not know a lot about certification because we were not invited if they had a meeting about certification. Only the board were invited, so they might know more about certification than we do.” (Interviewee A29)

Even though both men and women can be members of the groups, compared to men, women at Selopuro Village understand less about PERSEPSI’s forest certification program, as women attend the meetings less often and are less involved in peasant groups. According to some women, men are the head of household, so men play more roles in public activities (n= 4). The exception are those women who are elected to the board of peasant groups and women who have no husband, or whose husband cannot be involved actively in the peasant groups due to some reasons (e.g. sickness, work in other regions). Besides, based on observation, women who come to the meetings are likely to more focus on preparing and serving snacks during the meeting than following discussion in the meeting.

After receiving certification they were proud of it (n= 25). If they are asked what certification means to them, they say it is about recognition, or a positive image for Selopuro FMU and the possibility of a higher price for certified timber (n=23). Nevertheless, they have not derived significant economic benefit from forest certification. A notable change since it occurred is the presence of many visitors in their village. They are surprised that there are many visitors from Indonesia, as well as foreigners who have
come to their village since then (n= 27). The peasants are curious as to what the visitors want from their forest but they are reluctant to ask the board about it. A peasant shared their opinion about the influx of visitors:

“Since certification, many visitors have come to our village. They usually come in one or more buses. They are not only Indonesian but also foreigners. They take some photos of trees and hold meetings at the head of FKPS’ house. We do not have any idea what they want, or why they take pictures, or what they discuss. We are not invited to the meetings so we do not know. Only certain people are invited.” (Interviewee X5)

The members of the peasant groups have noticed that since certification, the head of FKPS has often received an invitation to visit Jakarta and Bogor. However, they do not know what the purpose of the invitation is, and the head of FKPS has rarely explained what he gained from these meetings. PERSEPSI has had no recent contact with them except with the head of FKPS (n= 16). As a result, jealousy exists among ordinary members as well as elite villagers (n= 11) as explained by one head of a KPS group who initiated the forest development:

“PERSEPSI only invites the head of FKPS to Jakarta and Bogor. I was the initiator in developing our forest and the certification. Maybe I am too vocal, too inquiring and critical, so now I am forgotten. The forest visitation and invitation regarding certification are also directed to KPS Ngudi rejeki 2. In fact, KPS Percabaan has had a big role in developing our forest from the beginning.” (Interviewee A27)

Some of them thought that certification produced most benefit for PERSEPSI and the head of FKPS (n= 3):

“We have developed our place into forest. It was our initiative and our hard work. PERSEPSI came when the forest was already established. Suddenly PERSEPSI made a submission to get an appraisal. It is PERSEPSI and not we who get benefits from the certification. Now PERSEPSI has become famous but our condition remains the same. Somebody who creates the forest does not apply for an appraisal, but somebody who has not created it applies for an appraisal.” (Interviewee A23).

Therefore when the valid date of certification has passed, they do not want to
reapply and pay the certification cost. They said that with or without certification they have maintained the sustainability of their forest and will always do so (n= 12). They also said that the benefit they derived from receiving certification has not met with their expectation (n= 25). A male member of a peasant group stated his opinion:

“PERSEPSI said that we could borrow money with tree stands as the collateral security. PERSEPSI also said that if we sold our certified timber we would get a higher price. The reality is it does not work well. It is a big lie!” (Interviewee A22)

They are sceptical of the importance of certification because FKPS, TPKS and the home handicrafts industry are inoperative (n= 20). Some of the board members considered that the process for gaining certification was difficult, but the result was not worth the trouble (n= 2). One board member of a peasant group stated their opinion about it:

“The process for gaining certification was hard. There were many activities to be completed and many assessments to be made. I was really nervous when the experts from the certification body interviewed me. When we received certification I was relieved and proud. However, after certification there were no significant differences. Certification can be important and can be unimportant. Certification can be just an expensive piece of paper.” (Interviewee A28)

Based on the interviews, perspectives from peasants and PERSEPSI are summarised in Table 5.8, below.
Table 5.8: Perspectives from peasants and PERSEPSI officials

<table>
<thead>
<tr>
<th>Peasants</th>
<th>PERSEPSI Officials</th>
</tr>
</thead>
<tbody>
<tr>
<td>• PERSEPSI has made many efforts to help poor households in the village.</td>
<td>• Peasants get used to receiving charitable support, so they lack initiative and make little effort to become self-reliant.</td>
</tr>
<tr>
<td>• PERSEPSI left them before they were ready to be independent.</td>
<td>• PERSEPSI has tried to connect peasants to manufacturers but they cannot meet the manufacturers’ demand.</td>
</tr>
<tr>
<td>• Certification of Sustainable Forest Management has not brought significant benefits to them.</td>
<td>• It is difficult to guarantee project continuity, because projects conducted by PERSEPSI depend on funding from donors.</td>
</tr>
<tr>
<td>• They developed and maintained the forest. PERSEPSI only submitted their forest for appraisal. PERSEPSI and the head of FKPS get the most benefits from the certification.</td>
<td>• It is becoming more difficult to attract funding because many donors are choosing other countries as targets and become project executors instead of employing NGOS.</td>
</tr>
<tr>
<td>• FKPS and TPKS have not played significant roles.</td>
<td>• Many donors impose bureaucratic procedures that are difficult to follow. It is also challenging to build collaboration with local government due to time frame and program inflexibility.</td>
</tr>
<tr>
<td>• The head of FKPS has not been open about information he has gained from meetings about certification.</td>
<td></td>
</tr>
<tr>
<td>• When the valid date of certification has passed they do not want to apply for a new certification unless they derive a significant benefit from it.</td>
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</tbody>
</table>

Source: Interviews with peasants (n= 21) and PERSEPSI officials (n= 3).
Chapter six

Discussion of key results

6.1 Introduction

Both Trees-4-Trees and PERSEPSI are Southern local NGOs that depend on donors for their day-to-day survival and activity funding, and act as service delivery agents in implementing their farm forestry program. Trees-4-Trees has relied on consumer-manufacturer contributions, while PERSEPSI has received funding from donors (e.g. WWF) to carry out its programs. These NGOs are working within boundaries. Not only must they follow state regulations, but also their donors’ aims. These limitations cause doubt about the extent of the two organisations’ effectiveness in benefitting their peasant clients.

This chapter will analyse the adequacy of Trees-4-Trees and PERSEPSI in supporting peasants to develop farm forestry in their target areas. The yardstick used will be the extent to which the two NGOs’ forestry programs meet with the peasants’ livelihood strategies. From this analysis it is possible that the programs could be improved - leading to more participation for peasants and economic benefits, as well as preventing deforestation and enhancing timber supply.

6.2 The extent to which the selected NGOs’ approaches to develop farm forestry meet with peasants’ livelihood strategies

In order to illustrate the capability of the NGOs to respond to peasants’ intentions and of peasants to utilise opportunities offered by these groups, it is important to understand: first, the nature of the NGOs and their programs; second, the livelihood strategies and behaviours of peasants in both villages; and third, how opportunities offered by the NGOs through farm forestry programs are viewed by the peasants.
6.2.1 Understanding the nature of the two selected NGOs (Trees-4-Trees and PERSEPSI) and their programs

Trees-4-Trees was established by some furniture manufacturers to provide green labels for their export products and for other manufacturers’ products; as well as to implement a tree plantation program funded by the manufacturers. Therefore, consistent with the typology described by Yaziji and Doh (2009), Trees-4-Trees is both a self-benefitting and other-benefiting NGO. Trees-4-Trees is a self–benefiting NGO, because it was established to benefit the manufacturers themselves and has been dependent on their financial support. However, Trees-4-Trees is also an other-benefiting NGO, as it has also expected to benefit peasants participating in the plantation program, and other manufacturers buying Trees-4-Trees’ green label.

Based on its mode of activity or paradigm, Trees-4-Trees is a service delivery/grassroots development/reformer NGO, consistent with the typology described by Eldridge (1989), Fakih (2008), and Yaziji and Doh (2009). As such, it is not concerned with influencing government policy or changing existing economic, social, legislative and political systems. Instead, Trees-4-Trees tries to make the existing systems work properly; it focuses on implementing its development program by encouraging peasants to participate in and benefit from its plantation activities. Thus possible negative impacts of development (e.g. class and gender disparity, hegemony of culture and politics, and disruption of the knowledge/ power system in a third world country) have not been its priority.

The other NGO, PERSEPSI, is an other-benefiting/ non-membership/ intermediary NGO, consistent with the typology described by Bratton (1989) and Yaziji and Doh (2009). It does not have members and has built a network along with donors and the government to provide services for its beneficiaries, without depending on its beneficiaries for financial or labour support. Based on its type of activity and paradigm, PERSEPSI can be categorised as a hybrid NGO that acts in advocacy/ grassroots mobilisation/ transformer and service delivery/ grassroots development/ reformer areas simultaneously. This classification is consistent with the typology described by Eldridge (1989), Fakih (2008) and Yaziji and Doh (2009). Initially a service delivery/reformer NGO focusing on livelihood enhancement programs, it has broadened its focus to become an
advocacy/transformer NGO, embracing gender equity, human rights and democracy in its programs.

Consistent with Fakih (2008), as a service delivery/reformer NGO, PERSEPSI follows a ‘modernisation and development’ paradigm by encouraging local people to be involved in its development program (e.g. enhancing the capability of local people to improve their entrepreneurship and organisation). It also aims to deliver development benefits to its clients by providing goods and services for them. As an advocacy/transformative NGO, PERSEPSI fits the ‘watchdog NGO’ category rather than a social movement/strong transformer NGO according to Fakih (2008) and Yaziji and Doh (2009). It is more concerned with empowerment from below (i.e. raising rights awareness among marginalised people’s and women’s groups, so they can be involved in any policy-making process that would affect their lives) than changing the national economic, social, legislative and political status quo. However, in its forest certification program in Selopuro Village, PERSEPSI has acted as a service delivery NGO that has supported peasants to benefit from the certified timber market. Trees-4-Trees’ and PERSEPSI’s positions in the typology of NGOs are illustrated in Figures 6.1 and 6.2

**Figure 6.1:** Trees-4-Trees and PERSEPSI based on paradigm of NGOs

![Figure 6.1: Trees-4-Trees and PERSEPSI based on paradigm of NGOs](image)
In relation to its program, PERSEPSI uses forest certification as a market-based instrument to offer the possibility for manufacturers and retailers of certified timber products to gain competitive power in timber markets and profit from their wares. The ecolabelling on certified products informs consumers that these items are made with minimal harm to the environment, because they are made from timbers harvested from sustainably managed forests. PERSEPSI also encourages the peasants to maintain the sustainability of their forest by offering the possibility of higher profits from selling certified timbers.

Forest certification is recognition that forest management practices of a certain forest management unit synchronise with sustainable forest management standards. PERSEPSI supported Selopuro Forest Management Unit (FMU) to achieve forest certification standards set by an accreditation body called LEI (Indonesian Ecolabelling). The Selopuro FMU was granted forest certification for the category ‘community-based forest management’ by a certification body called PT. Mutu Agung Lestari, after Selopuro FMU passed the verification process conducted by independently accredited auditors.
Similar to PERSEPSI, Trees-4-Trees offers opportunity for manufacturers to gain competitive power in the furniture market by providing green hang-tags for manufacturers’ products, and offering opportunities for peasants as tree growers to benefit from timber marketing. However, the mechanism of Trees-4-Trees green hang-tag is not the same as that of eco-labelling, especially in regard to forest-product certification. Eco-labels provide information to consumers that eco-labelled products are produced through a process that generally respects the environment (Bratt et al., 2011; Dosi & Moretto, 1998; Melser & Robertson, 2005; Piotrowski & Kratz, 1999; Williams & Millington, 2004); forest-product certification informs them that timber products are being produced in ways that minimise, or avoid, harm to the natural forests and the human system that they support (Hansen, 2006), or that the timber products are extracted from forests that are managed according to certain standards (Markopoulos, 2003).

The Trees-4-Trees green hang-tag states that: “A portion of the purchase price of this product has been donated to a foundation to fund replacement of trees used in its manufacture”. Therefore, through the green hang-tags, Trees-4-Trees does not seek to inform potential consumers that the furniture originate from sustainably managed forests or has been produced with minimal harm to the environment. Rather, Trees-4-Trees tries to inform them that by buying furniture bearing its green hang-tags, they participate in the tree plantation program on Java Island, to replace the trees harvested for making the products they have bought. Thus, to obtain the hang-tag for their products, manufacturers do not have to prove that timbers used in their furniture were harvested from sustainably managed forests, but only that the timbers are legally harvested; and that the manufacturer gives a contribution for tree planting activities to Trees-4-Trees as a replacement for trees used in their products.

Moreover, among the three types of eco-labelling (i.e. single-issue voluntary labels, single-issue mandatory labels and third party-voluntary labels) (ISO, 1999, 2000, 2006; Rashid, 2009; Salzman, 1997; Sonderskov & Daugbjerg, 2010), Trees-4-Trees’ green hang-tag is similar to single-issue voluntary labels, as it is a self-declared environmental claim. Self-declared environmental claim is placed on products by their manufacturers and retailers without reflecting holistic judgments of the overall environmental cost of the products, life-cycle analysis or a verification process by independent auditors (Teisl et al.,
The self-declared environmental claim of the Trees-4-Trees green hang-tags is different from forest-product certification. Forest certification requires an independent third party to provide chain-of-custody assessment confirming that wood from certified forests is used in product lines. Thus it is necessary to track the origin of the forest products in every stage of the supply chain (Cashore et al., 2004). However, Trees-4-Trees issues its green hang-tag itself, which is placed on furniture by manufacturers and retailers, without chain-of-custody assessment conducted by an independently accredited auditor. The similarities and differences between PERSEPSI and Trees-4-Trees in implementing their programs are summarised in Table 6.1.

Table 6.1: Comparison between program mechanisms of Trees-4-Trees and PERSEPSI

<table>
<thead>
<tr>
<th>Similarity</th>
<th>Trees-4-Trees:</th>
<th>PERSEPSI:</th>
</tr>
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<tbody>
<tr>
<td>Offer opportunity for manufacturers to win competition in timber markets and to protect from protecting the environment;</td>
<td>Conducts tree plantation program;</td>
<td>Conducts forest certification program;</td>
</tr>
<tr>
<td>Offer opportunity for peasants to benefit from timber markets while protecting their environment;</td>
<td>The green hang-tags are issued for furniture manufacturers by Trees-4-Trees without verification process regarding sustainable forest management practices of forest producers;</td>
<td>The forest certification is issued for FMU as a group of forest producers by certification body after the FMU pass verification process conducted by independently accredited auditors;</td>
</tr>
<tr>
<td>Offer direct link between peasants and manufacturers.</td>
<td>The requirements to gain green hang-tags are set by Trees-4-Trees (e.g. sell legal timber and pay contribution for tree plantation);</td>
<td>The standards of forest certification are set by accreditation body (LEI/Indonesian Ecolabelling);</td>
</tr>
<tr>
<td>Different</td>
<td>Trees-4-Trees:</td>
<td>PERSEPSI:</td>
</tr>
<tr>
<td>Source: Summarised from interviews with Trees-4-Trees officials (n= 4) and PERSEPSI officials (n= 3).</td>
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6.2.2 Local dynamics of peasant communities

**Peasants’ livelihood strategy**

Peasants in Bageng Village practise agroforestry. Agroforestry is in which there are economic and ecological interactions between the tree and non-tree components. In agroforestry, people grow tree and non-tree crop varieties to fulfil subsistence needs and obtain cash, and plant trees to benefit from their intended effects on other crops and the health of the local ecology (Kang & Akinnifesi, 2000; Nair et al., 2009; Raedeke et al., 2005; Valdivia et al., 2012; Young, 1988). From their agroforestry practice, peasants in Bageng Village derive not only wood (e.g. fuel wood, timber) and non-wood products (e.g. coconut, cotton) but also fodder for livestock, food, and tree services (e.g. shade/canopy for coffee, shelter, fencing, soil conservation).

There are several motivations for peasants in Bageng Village to practise agroforestry that are consistent with those provided by some authors mentioned below in regard to other case study. First, agroforestry requires fewer inputs, and is less labour intensive than mono-cropping so that peasants can perform paid work such as off-farm activities to gain cash income (Belsky, 1993; FAO, 1989a; Young, 1988). Second, combining trees, crops, pastures and livestock in agroforestry can reduce dependency on any one source of income and reduce risk (e.g. harvest failure) (Arnold, 1987; Belsky, 1993; FAO, 1989a, 1989b; Nair, 2007; Young, 1988). Third, agroforestry has the potential to meet multiple needs of peasants or to solve their problems that relate to shortages of food, as well as shortages of feed, water, energy, shelter, raw materials, cash, savings/income and social necessities (Arnold, 1987; Belsky, 1993; FAO, 1989a, 1989b; Kang & Akinnifesi, 2000; Nair, 2007; Pramova et al., 2012; Scherr, 1992; Young, 1988). It can also help to solve their problems in relation to soil erosion, declining soil fertility, weeds, pests and degradation of forest, pasture and rivers (Scherr, 1992; Nair, 2007; Valdivia et al., 2012; Young, 1988, 1989). Fourth, governments’ watershed programs and other environmental conservation and protection schemes persuade peasants to grow trees (Belsky, 1993). Other motivations to grow trees are as a reaction to decreasing agricultural productivity (FAO, 1989a) and reduced farmland access due to population growth (FAO, 1989a; Scherr, 1992).
Consistent with Belsky (1993) and Young (1988), peasants in Bageng Village combine annual and perennial crops by practising continuous intercropping and temporary or relay agroforestry. The continuous intercropping is carried out in various ways: first perennial crops or trees are planted between annual crop plants and/or as a boundary for them; second, they plant different kinds of trees, vegetables, and herbaceous plants which are densely and randomly planted in the space surrounding houses and sometimes in the same space as livestock; and third, they grow shrub crops (e.g. coffee and cocoa) with perennial trees (e.g. *Albizia*) whose leaves provide shade and fertiliser for the crops. For the temporary intercrops or relay agroforestry, they grow perennial crops or trees in a rotation cycle with annual crops. They also grow trees together with crops in one place for one to three years. When the trees are large and their canopies create dense shade, they stop planting crops below them. Some peasants also grow annual mono crops (e.g. irrigated and non-irrigated rice) and perennial mono crops simultaneously in their separate fields. Others grow annual mono crops continuously without any perennial crops in certain areas, or merely perennial crops without any annual crops in other areas of their land.

However, growing trees is not always applicable for all peasants in Bageng Village. The assumption that poorer peasants focus more on planting food crops for self-sufficiency than planting trees (Belsky, 1993; Belsky, 1984; Wiersum, 1982; Wollenberg, 1985) is relevant for peasants in Bageng Village. Even though according to Steppler and Nair (1987) agroforestry offers opportunity for both agricultural production and improving environmental sustainability, it is not always applicable for poorer peasants with land access of less than 0.1 hectares. They are more likely to plant annual mono crops (e.g. cassava) to fulfil their food needs than trees that are long-maturing and harvesting, even though intensification of annual cropping may decrease soil productivity.

Conversely, richer peasants with land access of more than 0.1 hectares are more likely to cultivate trees. They usually grow trees for firewood, non-timber products (e.g. coconut, cotton) and fodder for livestock, as well as tree services (e.g. shade/ canopy for coffee, shelter, fencing, soil conservation) rather than to produce timber. The trend towards planting coffee in the village has automatically increased their motivation to grow more trees for shade. If they grow trees for timber, they usually grow multi-purpose, fast growing and nitrogen fixing trees (e.g. *Acacia albida*, *Cassia siamea*, *Casuarina*
equisetifolia and Cocos nucifera) rather than long-harvested trees (e.g. teak and mahogany).

Peasants in Selopuro Village also practise agroforestry in which they grow hardwood, locally occurring trees and multi-purposes tree species (MPTS) in association with food crops and livestock in their home-gardens (pekaran) and fields (tegal). In this way they aim to fulfil subsistence needs, generate cash and enjoy the intended benefits from trees such as non-tree components and ecological health. Similar to the peasants in Bageng Village, those in Selopuro Village grow trees not only to provide wood (e.g. fuel wood, timber) and non-wood products (e.g. medicine) but also fodder for livestock, food, and tree services (e.g. shade/ canopy, shelter, fencing, soil conservation). Thus, agroforestry has provided income from various sources that can guarantee their food security (e.g. income from timber products, non-timber products, food crops and livestock).

However, there are several differences between peasants of the two villages regarding their motivation to grow trees. Those in Selopuro Village grow trees mostly because lands surrounding their houses consist of rocky and infertile soil which does not allow for many options other than planting trees. Moreover, trees for them can be a form of safety net or life insurance for their emergency needs. The assumption that ‘poorer peasants focus more on growing food crops for their food sufficiency than growing trees because trees take a longer time to be harvested and require secure land tenure that is sometimes unachievable for poorer peasants’ (Belsky, 1993) is not relevant to peasants in Selopuro Village. Poorer or richer peasants in Selopuro Village (whose land access is either more or less than the average 4 hectares) grow trees, especially teak on their land even though it takes at least 20 years to mature.

Agroforestry as practised by peasants in Selopuro Village is unusual. They grow annual and perennial mono crops at the same time in separate fields. There are two main separate land areas to be cultivated: the first consists of a fertile land area in the dam bed near their village, and the second is an infertile land area surrounding their houses. They only plant annual mono crops continuously during the dry season with few perennial crops in their dam-bed field, whereas they grow mainly perennial crops including trees in combination with some food crops (e.g. cassava, vegetables, herbaceous and medicine
crops) in the field near their houses. The perennial crops are sparsely, densely or randomly planted and consist of both multi-purpose, fast growing, nitrogen fixing trees (e.g. *Acacia albida*, *Cassia siamea*, *Casuarina equisetifolia* and *Cocos nucifera*) and high value trees (e.g. teak and mahogany). Similarities and differences in livelihood strategies regarding agroforestry practices between peasants in Bageng and Selopuro Villages are summarised in Table 6.2.

**Table 6.2:** Similarities and differences in livelihood strategies in agroforestry practices between peasants in Bageng and Selopuro Villages

<table>
<thead>
<tr>
<th>Similarity</th>
<th>Reasons to combine trees, food crops, pastures and livestock in agroforestry:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• agroforestry requires minimal inputs and labour;</td>
</tr>
<tr>
<td></td>
<td>• more opportunity to carry out paid work and off-farm activities;</td>
</tr>
<tr>
<td></td>
<td>• reduce dependency on any one source of income and reduce risk (e.g. harvest failure);</td>
</tr>
<tr>
<td></td>
<td>• to meet multiple needs related to shortages of food, shortage of feed, water, energy, shelter, raw materials, cash, savings/income and social necessities; as well as soil erosion, declining soil fertility, weeds, pests and degradation of forest, pasture and rivers;</td>
</tr>
<tr>
<td></td>
<td>• government’s environmental conservation and protection programs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Differences</th>
<th>Peasants in Bageng Village:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Decreasing agricultural productivity, agricultural labour force, and farmland access due to population growth motivates them to grow trees;</td>
</tr>
<tr>
<td></td>
<td>• Food crops (e.g. cassava, maize) and shrub crops (e.g. coffee, sugar cane, cocoa) are main commodities;</td>
</tr>
<tr>
<td></td>
<td>• Peasants (especially whose land access is less than 0.1 hectares) prefer to grow multi-purpose tree species (e.g. coconut, orange, cotton tree) and short-term harvested trees (e.g. <em>Albizia</em>, <em>Acacia</em>);</td>
</tr>
<tr>
<td></td>
<td>• Peasants with wider land access (more than 0.1 hectares) grow more trees for timber;</td>
</tr>
<tr>
<td></td>
<td>• Growing trees is more to give shade for coffee crop, building houses and obtaining tree products for cash income rather than as safety net/life insurance.</td>
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<table>
<thead>
<tr>
<th>Differences</th>
<th>Peasants in Selopuro Village:</th>
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<tbody>
<tr>
<td></td>
<td>• Poor soil conditions usually motivate them to grow trees;</td>
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<tr>
<td></td>
<td>• Food crops are more for self-consumption;</td>
</tr>
<tr>
<td></td>
<td>• Peasants (both with wider and narrower land access) grow long-term harvested/high valued trees (e.g. <em>teak/Tectona grandis</em> L.f and <em>mahogany/Swietenia macrophylla</em>);</td>
</tr>
<tr>
<td></td>
<td>• Growing trees is more to provide timber for safety net/life insurance purposes.</td>
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*Source: Summarised from interviews with peasants in Bageng Village (n=34) and Selopuro Village (n=31).*
During the last ten years, there have been changes in peasants’ livelihood strategies in Bageng and Selopuro Villages. In Bageng Village, due to various reasons (e.g. damaged irrigation networks, rice having more pests) the peasants have altered their strategy from wetland to dry land farming. They are now planting less rice and growing more cassava, maize and beans. Lately, there has been less labour available for farming work in the village.

Farming has become less attractive for the younger generation because of:

- The plots growing smaller for each person due to population growth;
- The younger generation having better education that gives them more options to work in other sectors;
- The rapid growth of the industrial sector of urban areas that absorbs many labourers;
- The job opportunities for overseas labourers are another attraction for the people of Bageng Village to work in the off-farm sector; and
- The peasants also realise that lower maintenance and less labour intensive species are more suitable for present and future conditions, because they are getting older and weaker.

The lack of farming labour has motivated the peasants in Bageng Village to replace some of the food crops, especially cassava with coffee that is lower maintenance, less labour intensive and thus less expensive to cultivate and harvest. Coffee needs trees for shade cover; therefore they have also planted more trees, especially short-term harvested trees. The more people engage in off-farm activities, the more options they have regarding farming strategies. The more they are involved in off-farm activities the more they grow coffee and trees, because non-farm income can reduce the peasants’ dependency on short-term harvested species (e.g. cassava) for their daily needs. The peasants also have livestock as capital assets for fulfilling emergency needs. This also motivates them to grow trees for livestock feed.

In Selopuro Village soil conditions are the main motivation for them to choose species to be planted. They grow food crops on their fertile lands in dam areas, but mostly grow trees in their infertile lands in their village. Similar to peasants’ situation in Bageng Village, there is an inadequate supply of farming labour in Selopuro Village. Better
education for the younger generation, less available plots for each person, and more job opportunity for urban labourers have made the agricultural sector less attractive for them. Moreover, off-farm activities can provide cash income for the daily needs of the peasants as, for them, growing trees is a form of safety net while growing food crops is mainly for self-consumption.

**Peasants’ considerations so as to maximise profit and/ or minimise risk**

As previously illustrated, soil conditions at Bageng Village are fertile and its peasants have opportunities to maximise profits from agricultural activities. Peasants with more extensive lands (more than 0.1 hectares) grow food crops not only to fulfil their daily consumption needs and social obligations, but also to gain profits from them. They are willing to change their crop species to those that may give a better return. Consistent with Wolf (1983), they tend to make a rational choice by maximising production (e.g. they increase production factors and inputs, as well as their knowledge of the market) to maximise profit rather than exercising moral choice by minimising their consumption, even though they still care about possible risks. Thus their economic behaviours tend to support Popkin’s opinion (Popkin, 1979, 1986) that peasants are very rational in their economic activities and take any opportunities to maximise profits.

However, in Bageng Village, the economic behaviour of poorer peasants with more limited land access (less than 0.1 hectares) and landless peasants tend to support Scotts’ opinion (Scott, 1976, 1983) that peasants’ economic behaviour is more motivated by subsistence morality that prioritises safety (safety first) in their economic activities, including agriculture. They grow food crops mostly for fulfilling their daily consumption needs and for meeting social obligations. If they sell their surplus products, they use the profits for everyday needs. Therefore, for poorer and landless peasants, minimising risk is more suited to their condition.

In contrast to peasants in Bageng Village, due to the limited fertile lands available for food crop cultivation, those in Selopuro Village do not have many options in agroforestry activities. They grow food crops more for their own consumption than to maximise their profits (even though they still want to gain profits from agricultural activities). Having planted teak for almost 50 years, they have more opportunity to
maximise profits from tree plantation than from food crops. However, even though they can realise a capital gain from selling their trees, they are likely to sell them only for urgent needs, as trees for them are a form of safety net/life insurance. They were worried they would spend the money on unnecessary or even luxury items easily if they sold their harvest-ready trees. Selling these trees would be too risky for them when they may need cash in an emergency. Thus, even though they have the opportunity to maximise profits from selling their trees, they choose to prioritise safety and minimise risk. Moreover, most peasants in Selopuro cultivate their lands to allow small-scale production for fulfilling their subsistence needs. If they have any surplus product after fulfilling their daily needs they sell their surplus; but the cash income from selling these agricultural products is devoted to fulfilling their daily needs.

Therefore, peasants’ economic behaviour and livelihood strategies in Selopuro Village are closer to Scott’s description of peasants (Scott, 1976, 1983) than Popkin’s (Popkin, 1979, 1986). Scott (1976, 1983) considered that the economic behaviour of peasants is usually motivated by subsistence morality that prioritises safety (safety first) in their economic activities including agriculture; Popkin (1979, 1986) concluded that peasants are very rational in their economic activities and take any opportunities to maximise profits. Even though rational choice (Popkin, 1979, 1986) and moral choice (Scott, 1976, 1983) are not rigidly codified for peasants in Selopuro Village the peasants, whether richer or poorer, tend to use their moral choice rather than using their rational choice. This supports Wolf’s opinion (Wolf, 1983) that if peasants use their moral choice they will minimise risks and also their consumption, rather than maximise production (e.g. through increased production factors, production input, and knowledge of their market). Even though peasants in Selopuro are exercising moral choice more in the manner of Scott (1976, 1983), it does not mean that they are irrational, as according to Abar (2002), peasants who prioritise safety, prefer to use local knowledge, and are contra-market and contra-commercialisation are also rational peasants. The continuum of peasants’ considerations in maximising profits and minimising risks is summarised in Figure 6.3.
Despite these differences, peasants in Bageng and Selopuro Villages are similar in their view of the importance of fulfilling social obligations. Despite their limited ability to fulfil their daily needs, for peasants in both villages (whether wealthy or poor) fulfilling social obligations is important. Even though these obligations place burdens on them, they provide a way for peasants to share their limitations and surpluses to secure their wellbeing, as well as to maintain their social relationships. The phenomenon of ‘sharing what they have even though they should minimise consumption’ among peasants in those villages is relevant to the findings of Geertz (1983) about ‘shared poverty’, that peasants share their poverty to secure their welfare.

### 6.2.3 How opportunities offered by Trees-4-Trees and PERSEPSI through farm forestry programs are viewed by the peasants

Community forestry practices in Bageng and Selopuro Villages follow farm forestry models of community forestry. Farm forestry is conducted on private lands, involve local people or peasants as the main actors (Subarudi et al., 2003). In farm forestry, trees are
planted as part of integrated ecosystems on privately owned lands outside state forests (Forestry Regulation No. 5/1967; Dep Hut 1993 cited in Awang, 2001).

Peasants who grow trees in Selopuro and Bageng Villages can be categorised as conductors of small-scale forest enterprises (SFEs). SFEs are forest enterprises with an average access per household to a small forested area of less than 4 hectares (Rickenbach, 2002 in Butterfield, 2004). Even though the government and NGOs have played their roles in developing the SFEs, their forestry practice is *tree grower-initiated management*, small-scale farm forestry or private forestry. In *tree grower-initiated management*, small-scale farm forestry or private forestry, the peasants grow and maintain the trees on privately- and/or community-owned land outside of state forest (Nawir & ComForLink, 2007; Forestry Regulation No. 5/1967; Dep Hut 1993 cited in Awang, 2001).

In Bageng Village, Trees-4-Trees operate in the early stage of the *developing forest enterprise* since most of the peasants in Bageng Village have not grown trees to produce timber commodities or developed forest enterprises. Before Trees-4-Trees implemented its plantation program, farm forestry in Bageng Village was mostly government initiated through several afforestation programs on private lands (e.g. the Land and Forest Rehabilitation program, One Man One Tree program). Since the afforestation programs are directed towards rehabilitating critical lands, only peasants whose lands are categorised as critical receive free tree seedlings and incentives for planting and maintaining the trees. Peasants whose lands are not categorised as critical do not qualify for this assistance. Moreover, the government has not provided support to peasants to develop forest enterprises. Conversely, Trees-4-Trees provided free tree seedlings for peasants who were interested to grow trees even though their lands are categorised as non critical. Trees-4-Trees has also helped the peasants to develop timber enterprises but did not provide funding for planting and maintenance costs. To develop forest enterprises in Bageng Village, Trees-4-Trees gave several kinds of technical assistance, as explained in Table 6.3.
Table 6.3: Support of Trees-4-Trees in developing SFEs in Bageng Village

<table>
<thead>
<tr>
<th>Strategies Recommended by Scherr et al. 2007</th>
<th>Observations from Case Study Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengthen peasant organisations</td>
<td>• Reform the peasant organisations by adding production and marketing section and forest management section. Trees-4-Trees has not developed communication forum for peasants at village level.</td>
</tr>
<tr>
<td>Target education and research to community forestry</td>
<td>• Inform peasants of the importance of the plantation program to gain possible environmental and economic benefit.</td>
</tr>
<tr>
<td>Silviculture practices</td>
<td>• Conduct land and tree inventory, site inspection and mapping and free tree seedling distribution.</td>
</tr>
<tr>
<td>Improve competitive position in market</td>
<td>• Provide assistance in harvesting by connecting the peasants directly to the buyers;</td>
</tr>
<tr>
<td></td>
<td>• Provide grower training about planting, maintaining and measuring trees that is engaged with the boards of peasant organisations.</td>
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</table>

In Selopuro Village, before PERSEPSI implemented its forest certification program, the forest had been developed and maintained well by the peasants. During the last 50 years, the forest has delivered significant environmental benefits to them (e.g. increased water sources and debits, shade, soil protection) and has made valuable contributions for them in difficult times (e.g. when in need of cash to pay medical, funeral, education expenses). However, they have not developed a timber enterprise to achieve optimum profits from timber marketing. The peasants had no organisation as forest producers so there was no coordination within and among peasant groups of maintenance, harvesting and marketing of their timber at village level. The peasants also depended heavily on timber brokers as intermediaries to harvest the wood and transport it to buyers. Depending on timber brokers places the peasants in a weaker bargaining position than timber brokers in deciding timber prices, especially when the peasants need cash immediately for urgent needs. Timber prices offered by timber brokers are low because they use less beneficial timber measurement; and also belong to long marketing chain from tree owners to manufacturers via wholesalers who may sell to other larger wholesalers.

Therefore, PERSEPSI intended to enhance the opportunity for peasants to gain profits from timber marketing through its forest certification program. The intended goals
of forest certification are not only to achieve environmental but also social and economic benefits (Thornber et al., 1999). In its efforts, PERSEPSI did not focus on revising policies to support tree planting (e.g. improving forest access and ownership security, removing regulatory barriers, and involving local producers in policy negotiation). In Selopuro Village, the peasants have no problem related to land ownership and access of forested areas. They already have secure forest tenure and access, as they have forested lands of their own and a certificate of land ownership.

To enhance economic benefits for them from timber marketing, PERSEPSI has been more focused on helping them to get forest certification from LEI; these efforts have included developing their forest enterprises. In developing peasants’ timber enterprises, PERSEPSI has conducted almost all of the main steps identified by Scherr et al. (2002, 2004) to stimulate the peasants to gain more benefit from forest enterprises. PERSEPSI’s efforts are based on the assumption that peasants in Selopuro Village would derive more economic benefits from timber marketing than before if their forest management unit was awarded forest certification for sustainable forest management practice. This assumption was made because:

- the price of certified timber is higher than that of non-certified timber;
- PERSEPSI shorten the long timber marketing chain by directly connecting peasants to manufacturers; and
- manufacturers use a different timber measurement to that used by timber brokers.

PERSEPSI realised that following certification standards and procedures is mostly beyond the capability of peasants (SFEs owners) in Selopuro Village. SFEs usually have limited financial resources to pay the cost of forest certification, and have limited human resources to meet its requirements (e.g. tree and land inventory, drawing up a management plan, conducting environmental and social impact assessment, yield and regeneration rates monitoring, making endangered species inventories, and worker health and safety monitoring) (Butterfield, 2004; Higman & Nussbaum, 2002; Marijinissen, 1998; Scarse, 1999; Thornber et al., 1999).

To deal with these limitations in pursuing forest certification, SFEs need financial and technical assistance (Fischer, 2005). PERSEPSI (funded by WWF) provided financial
assistance for preparing, and applying, for forest certification; it also gave technical assistance to help the SFE meet certification standards. To reduce the costs, simplify procedures, and enhance their power in the marketplace, PERSEPSI applied for the certification on behalf of peasants in Selopuro Village by designating them as one group or Forest Management Unit (FMU). Group certification allowed the peasants to receive one assessment for all of them (Fischer, 2005; Hansen, 2006).

To fulfil the formal requirement for forest certification, PERSEPSI assisted board members of eight peasant organisations in conducting a land and tree inventory and in completing all required documents. To develop forest enterprises, PERSEPSI has performed several steps suggested in Scherr et al. (2002, 2004) for developing timber enterprises for SFEs. These stages included strengthening the organisation of producers, targeting education and research to community forestry, improving SFEs’ competitive position in the market, and developing strategic business partnerships as described in Table 6.4.

Table 6.4: Support of PERSEPSI in developing SFEs in Selopuro Village

<table>
<thead>
<tr>
<th>Strategies Recommended by Scherr et al. 2007</th>
<th>Observations from Case Study Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengthen peasant organisations</td>
<td>• Group peasants at village level into one Forest Management Unit (FMU), form peak body from peasant organisations called Peasant Community for Certification (KPS/ Kelompok Petani Sertifikasi), and establish Forum of Peasant Community for Certification (FKPS/ Forum Komunikasi Petani Sertifikasi) as communication forum for the eight peasant organisations in the forest enterprise.</td>
</tr>
<tr>
<td>Target education and research to community forestry</td>
<td>• Inform peasants about the importance of forest certification in maintaining forest sustainability so as to gain the possible environmental and economic benefit.</td>
</tr>
<tr>
<td>Improve competitive position in market</td>
<td>• Establish TPKS (Tempat Penitipan Kayu Sertifikasi) which can replace timber brokers in harvesting, transporting and connect the peasants directly to buyers of certified timber; • Provide training for board of KPS in measuring trees. With better tree measurement, shorter market chain and higher price for certified timber, peasants could gain more economic benefit from their forest enterprises.</td>
</tr>
<tr>
<td>Develop strategic business partnership</td>
<td>• Assist people in Selopuro Village to develop home industry/ small enterprise in recycling unused parts of trees as furniture and handicraft, connect the home industry to buyers and provide assistance in management, financing and marketing.</td>
</tr>
</tbody>
</table>
The illustrations above show that Trees-4-Trees (in Bageng Village) and PERSEPSI (in Selopuro Village) have similar aims to enhance the possibility for peasants to benefit from timber marketing while rehabilitating their lands. However, the two NGOs worked in different stages of farm forestry development. Trees-4-Trees through its plantation program operated in the initial stage of farm forestry development, while PERSEPSI worked in developing timber enterprises of peasants who had already practised farm forestry for more than 50 years. The extent to which peasants avail themselves of opportunities provided by the NGOs also varies in between the villages.

As explained previously, even though not all peasants in Bageng Village have understood what the Trees-4-Trees program is about, they have followed it. The peasants, especially those whose land access is more than 0.1 hectares, participated in Trees-4-Trees’ program because planting more trees suited local conditions and the peasants’ intentions. As mentioned before, the peasants practise agroforestry for several reasons, for instance: reduced farm land access, decreasing agricultural productivity, less labour available for farming work, intentions to reduce risk, environmental protection, and trends toward growing coffee that needs cover from shade trees. Moreover, peasants with larger plots (more than 0.1 hectares) have tended to take any opportunities to maximise profit by changing their crop species to those that may give a better return; and also by increasing production factors and input, as well as their knowledge of the market. This situation can provide the opportunity for the Trees-4-Trees plantation program to be accepted and adapted by peasants in Bageng Village, especially for plantation of multi-purpose, fast growing and nitrogen fixing trees (e.g. *Acacia albida*, *Cassia siamea*, *Casuarina equisetifolia* and *Cocos nucifera*) that can generate income sooner than long-harvested trees (e.g. teak and mahogany).

However, Trees-4-Trees does not provide financial support for tree maintenance, which can discourage the peasants from growing trees. To improve SFEs’ competitive position in the marketplace, Trees-4-Trees offers a direct link to manufacturers. Trees-4-Trees can also give cash directly to peasants before harvesting. However, such payment would not guarantee their willingness to sell timber through Trees-4-Trees because the sale process still takes more time than selling through a timber broker. Moreover, manufacturers require large quantities; to keep the balance between the cash they receive
from the transaction and the harvesting cost, it is not possible to sell small amounts of trees (less than a truck load) to Trees-4-Trees, unless other peasants in the same area sell their trees at the same time.

By providing financial and technical assistance, PERSEPSI has also made many efforts to stimulate the peasants in Selopuro Village in enhancing their benefits from forest enterprise. Some benefits received by peasants in Selopuro Village are consistent with the opinions of several authors about possible results of forest certification mentioned below. The forest certification program gives SFEs a chance to access new markets for certified timber in the broader economy and to gain higher profits from price premiums for their certified products (Guillen, 2000; Irvine, 1999; Marijinissen, 1998; Markopoulos, 2003). The program can also improve administration of their forest enterprise (e.g. forest management planning and inventories) (Bass et al., 2001; Guillen, 2000; Irvine, 1999; Marijinissen, 1998; Markopoulos, 2003) and may invite support from external actors (e.g. NGOs, government, donors) to provide assistance with other needs (Guillen, 2000; Irvine, 1999; Marijinissen, 1998; Markopoulos, 2003).

Despite PERSEPSI’s efforts to enhance peasants’ benefits from their forest enterprises, there have been no significant changes in SFE management among the tree-growers, as they do not take the opportunity to enhance the commercial value of their forests through forest certification. Even though the NGO has supported the peasants to access new markets for certified timber in the broader economy and to gain higher profits from a price premium of 8 to 15 percent over non-certified products, they have only sold their certified timber once through TPKS. Of total domestic and international demand for certified timber from Selopuro Forest Management Unit of 360 cubic metres in 2005, the peasants could only supply 13.6 cubic metres of logs (less than 4 percent of the total demand). Since the first transaction, they have not sold their timber through TPKS. Instead, for various reasons, they have used their previous marketing link by selling their timber through timber brokers (the reasons for peasants to sell their timber to local traders rather than to TPKS are described in Figure 6.4 below). Consequently, they have lower bargaining power than that of timber brokers, and must agree to have their certified timbers valued as non-certified timber by these brokers. The home industry is also non-operational since the workers are not satisfied with the salary and have difficulty meeting the required
The question is why, after all PERSEPSI’s financial and technical support for pursuing forest certification and developing their forest enterprises, the peasants do not take the opportunity to enhance the commercial value of their forests through forest certification? The reasons are: firstly, Peasants in Selopuro Village do not rely on their timber business for maximising their profit. As has been mentioned before, they usually prioritise fulfilment of subsistence needs and safety (safety first). Supporting Scotts’ opinion (Scott, 1976, 1983), it is their choice to prioritise safety and minimise risk rather than maximise profit, even though they have opportunity to optimise their returns from selling their trees. Since they perceive trees as life insurance, maximising profit from trees by selling all their ready harvested timber is too risky for their safety strategy. Therefore, peasants condition in Selopuro Village is consistent with Butterfield’s conclusion (Butterfield, 2004) that SFEs could usually only supply small quantities of timbers inconsistently (less than a truckload), with various species, sizes and qualities of timber.
With only small quantities, inconsistent sales, and various species, sizes and quality of timber supply it is difficult for peasant in Selopuro Village to meet global market demand that requires consistent supply with higher harvest volumes and relative uniformity of species, size and quality of timbers. Forest certification would thus be less relevant to peasants, if they could not provide a large-scale and consistent supply.

Secondly, related to the function of peasant organisations, since they were granted forest certification, KPS, FKPS and TPKS have not played their part optimally in coordinating peasants’ SFEs. There has been no coordination of SFE management among the peasants within the single forest management unit. Each peasant manages their SFE by themselves (e.g. planting, maintenance, harvesting, transport, and marketing). If the peasant organisations could play their functions, they could coordinate the peasants to meet manufacturers’ demand for consistent supply with higher harvest volumes and relative uniformity of species, size and quality of timbers.

In its efforts to prepare peasant organisations for forest certification, PERSEPSI seems to focus more on establishing the organisations for forest certification formally, rather than enhancing their capability to function. For instance, there have been no significant changes in the function of peasant groups/ KPS at Selopuro Village. They still organise a meeting once a month, but mostly to maintain social relationships, discuss agricultural problems, and participate in small-scale saving and credit facilities rather than coordinating forest enterprise practices.

In establishing the FKPS, PERSPSI has not ensured the ability of FKPS’ board member to organise peasants’ forestry activities (e.g. planting, maintaining, harvesting, marketing). As was stated by some interviewees, instead of the members of peasant groups, it was PERSEPSI who decided the board members of the FKPS. Therefore, the board members was not accepted by the peasants. The head of FKPS also did not fully understand how to run the organisation. Even though he often attended meetings related to forest certification, he did not share his experience with other members. Indeed, the FKPS has been inactive for more than five years.
Moreover, in establishing the TPKS, PERSEPSI also focused on the formal organisation of the TPKS rather than its capability to replace timber brokers. There are many limitations of the TPKS, including financial and human resource constraints. Due to its financial limitations, the TPKS cannot buy tree stands and give the cash directly to the peasants. To be able to pay currency, the FKP must wait for payment from buyers, and thus the TPKS employs a longer process to provide cash to peasants than do timber brokers. The peasants prefer to obtain their cash sooner because they sell their timbers mostly for urgent needs. Therefore, they prefer to sell their timber to local traders. The head of TPKS works for TPKS voluntarily. Since he is quite busy with his job as a village officer, it is not easy for him to focus on running the TPKS. The way opportunities offered by Trees-4-Trees and PERSEPSI through farm forestry programs are viewed by the peasants are summarised in Figure 6.5.

Figure 6.5: Peasants’ preferences re forestry compared to programs of Trees-4-Trees and PERSEPSI.

The case of PERSEPSI and peasants in Selopuro Village shows that external financial and technical supports that have helped peasants to pursue forest certification cannot guarantee their success in penetrating the certified timber market. The implementation of PERSEPSI’s forest certification program cannot bring about significant changes because there is a gap between the intentions of the NGO and the peasants of
Selopuro Forest Management Unit/ FMU. The interests of donors and PERSEPSI in promoting forest certification have not coincided with the main interest of the peasants. PERSEPSI is likely to emphasise productivity and intensive utilisation of forests to gain as much as profit as possible for the peasants. However, the peasants prioritise forest utilisation more for fulfilling subsistence needs, protecting against seasonal gaps, and as a safety net. The peasants have not been able to maximise economic benefits from these markets because market demand produced by certification is not compatible with local production philosophy, or social and cultural considerations. Therefore, these supports have not been strong enough to motivate them to compete in the certified timber market.

This supports Be`jar’s opinion (Be`jar, 1998) because the failure to assimilate NGO’s intention into those of the peasants resulted in ineffective project implementation and led to passive participation, as the peasants went back to their previous habits when the program was completed and NGOs left. So, it is not always easy for NGOs to be responsive to grassroots conditions.

Through their green labels and forest certification, Trees-4-Trees and PERSEPSI have tried to implement a global intention at local level rather than assimilating local intentions with the global level. Green labels and forest certification are a non-state market-driven governance system (NSMD governance system) (Cashore, 2002), or a market-based instrument (MBI) (Markopoulos, 2003). In NSMD mechanism, the enforcement of its regulations is not reliant on state sovereignty (Cashore, 2003) and is independent from state authority (Bostrom, 2003). Instead, it employs global market demand to regulate forestry practices of peasants conducting agroforestry (Cashore, 2002).

Through green label and forest certification, these NGOs use globalisation, in which worldwide traffic and accumulation of capital, information, people, network and institutions occurs across national borders to restore the environment. Despite its negative impacts, according to Mol (2001), globalisation can contribute to the establishment of transnational environmental agreements, as well as movements and pressures for environmental-friendly standards in production and marketing. Consistent with Vogels’ opinion (Vogel, 1995, p. 226 in Cashore et al., 2003) about forest certification, through their programs, the NGOs, especially PERSEPSI, have tried to reverse the downward effects of globalisation on environmental, social and labour standards.
The NGOs’ achievements through their programs are rooted in the increasing interest of transnational actors (e.g. international NGOs) in putting pressure on domestic policy. Forest certification is applied for reasons of environmental and social interest protection through market-based boycott campaigns against manufacturers and retailers whose practices have hampered the environment (Berstein & Cashore, 2002 in Cashore, 2002; Klingberg, 2003; Vogel, 1995). Consistent with Burkett (2011) and Fung and Hung (2010) about several reactions of NGOs to globalisation and neo-liberalism, the two NGOs have not implemented their programs as a resistance tool against globalisation and neo-liberalism. Rather, they have chosen to engage with the system to create changes by connecting community organisations to the market.

Even though the NGOs have good intentions to enhance the livelihood of peasants, these cases have demonstrated that global intention is not always applicable at the local level if it is incongruent with local conditions. The NGOs’ tendency to apply global intention at local level rather than the vice versa is closely related to how the NGOs have developed. The emergence and development of Southern NGOs (SNGOs) have been mainly driven by the top-down process of political globalisation (i.e. of political structures, institutions, and western liberal democratic values) (Reimann, 2006), as well as by economic globalisation within the neo-liberal agenda (Gideon, 1998), instead of being driven by grassroots forces (Bebbington & Farrington, 1993; Reimann, 2006). Similar to other Southern NGOs (SNGOs), instead of being driven by grassroots forces, the emergence and development of PERSEPSI and Trees-4-Trees has been mainly driven by the top-down process of political globalisation (i.e. of political structures, institutions, and western liberal democratic values); as well as by economic globalisation within the neo-liberal agenda.

Under neo-liberal economic policies, NGOs became the “preferred channel for service provision in deliberate substitution for the state” (Edwards and Hulme, 1996, p. 2), while the political liberalisation agenda of the neo-liberal paradigm expected NGOs to be vehicles for democratisation and act as a counterweight to governments (Brumley, 2010). Thus, the target NGOs for this research behaved in away that supported the opinions of Edwards and Hulme (1995, 1996), Gideon (1998), Meyer (1992) and Reimann (2006).
Trees-4-Trees’ and PERSEPSI’s tendency to apply global intentions at local level rather than the vice versa is closely related to the importance of service delivery NGOs in replacing states’ roles in public service provision. Consistent with opinion of Gideon (1998), in its implication, the attitude of Trees-4-Trees and PERSEPSI, is closely related to donors perceiving them as preferred agents in the practice of global freemarket capitalism.

Consistent with opinion of Arellano-Lopez and Petras (1994), the available funding from international donors in response to economic restructuring within neo-liberalism has stimulated the emergence of the both NGOs that seem to be opportunistic NGOs, since they are likely to focus more on implementing development projects than promoting local level democratisation and empowerment. This is because NGOs who have linked their focus to neo-liberal strategy are the most likely to win funding from multilateral and international donor agencies (Gideon, 1998). Supporting opinion of Gideon (1998), it is too optimistic to expect them to strengthen grassroots empowerment and democratisation at local level if the NGOs were used as a tool to implement the neo-liberal model. PERSEPSI and Trees-4-Trees’ reliance on donors and its consequences for their ability to be participatory agents are illustrated in Sub-section 6.4.

6.3 The extent to which the selected NGO-led approaches to farm forestry improve participation levels and address poverty, deforestation and lack of timber supply

In this discussion, the capability of Trees-4-Trees and PERSEPSI to encourage local communities in their target areas and create changes is measured from outcomes related to participation, poverty minimisation, deforestation, and timber supply.

6.3.1 The extent to which farm forestry programs of Trees-4-Trees and PERSEPSI improve participation by the peasants

According to the United Nations (1981) and The United Nations Economic and Social Council resolution 1929 (LVIII), participation is giving opportunity to all members of a community to be involved voluntarily in contributing to decision-making in respect of setting goals, formulating policies and planning and implementing development programs,
and sharing equitably in the benefits (Midgley et al., 1986). In relation to the roles of NGOs in promoting local participation, the ‘New Policy Agenda’ of neo-liberal strategies has regarded NGOs as catalysts for democratisation including promoting participation (Bebbington, 1993; Elliot, 1987; Franz, 1987; Moore, 1993; Tembo, 2004; Zaidi, 1999). Among donors’ reasons to channel their funding to NGOs is their perception that NGOs have the ability to build grassroots channels and to operate development programs that are participative (World Bank, 1995).

The farm forestry programs of Trees-4-Trees and PERSEPSI try to provide social and economic benefits from forests to local people and also encourage participation of local people in maintaining sustainability of their forests and restoring forest health for future generations. However, in practice it is not always easy for NGOs such as Trees-4-Trees and PERSEPSI to meet expectations of them as participatory agents in their development initiatives.

According to Walker and Shannon (2011), development initiatives can be top-down directed, top-down encouraged or bottom-up development. The Trees-4-Trees and PERSEPSI programs are top-down directed development, as the programs are initiated by the NGOs and have centrally defined objectives and program protocols, instead of being initiated by the peasants. Even though the peasants are voluntarily involved in implementation of forest certification and plantation program, Trees-4-Trees and PERSEPSI have decided what kind of programs are to be implemented, how they should be implemented, and where. That means the goals of the NGOs’ programs and how the programs will be implemented have been determined by the NGOs without any involvement from the target communities. The peasants have not had any influence in setting goals, formulating policies or planning the development process.

Consistent with UNRISD’s types of participation (UNRISD, 1980), peasants’ participation in the PERSEPSI forest certification program and Trees-4-Trees’ plantation program is pseudo-participation instead of authentic participation arising from grassroots initiatives, as the programs are set and planned by the NGOs and their donors. Thus the people do not have a voice in deciding intended outcomes (Midgley et al., 1986). Even though peasant participation in the NGOs’ programs is not coerced, it is not spontaneous
participation, as these programs are based more on NGOs’ initiatives or knowledge than communities’ initiatives, needs, and knowledge. Nor is it self-reliant action or independent from external agents’ help. The NGOs announce their views or explain their knowledge to peasants as if they understand peasants’ needs and problems better than the peasants themselves. After receiving information about the program, the peasants have a right to decide whether they want to participate or not. If they decide to participate and agree to follow NGOs’ instructions in the program, they merely follow instructions from the NGOs. The NGOs implement their programs after ensuring compliance from the peasants. Using the participation scale provided by UK Health for All Network (UK Health for All Network, 1991), the degree of deliberative participation in these cases is only receiving information (as illustrated in Table 6.5).

Table 6.5: Degree of participation

<table>
<thead>
<tr>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>None</strong></td>
<td><strong>Has Control</strong></td>
</tr>
<tr>
<td>Community is told nothing.</td>
<td>Organisation asks community to identify the problem and make all key decision on goals and means. Willing to help community at each step to accomplish goals.</td>
</tr>
<tr>
<td>Receives Information</td>
<td>Organisation identifies and presents a problem to the community, defines the limits and asks community to make a series of decisions that can be embodied in a plan, which it will accept.</td>
</tr>
<tr>
<td>Is Consulted</td>
<td>Organisation presents a tentative plan subject to change and is open to advice from those affected. Subsequently expects to change plan at least slightly and perhaps more.</td>
</tr>
<tr>
<td>Advises</td>
<td>Organisation presents a plan and invites questions. Prepared to modify plan only if absolutely necessary.</td>
</tr>
<tr>
<td>Plans Jointly</td>
<td>Organisation tries to promote a plan. Seeks to develop support to facilitate acceptance or give sufficient sanction to plan so that administrative compliance can be expected.</td>
</tr>
<tr>
<td>Community makes a plan and announces it. Community is convened for information purposes. Compliance is expected.</td>
<td>Organisation presents a plan and invites questions. Prepared to modify plan only if absolutely necessary.</td>
</tr>
</tbody>
</table>


Among the categories of participation created by Rahnema (1992) and Sachs (1992), peasant participation in the two NGOs’ programs is more transitive than intransitive participation; the NGOs give opportunity for the peasants to participate in
program implementation in order to achieve an intended goal, rather than setting participation as part of the program goals. It can also be said that among the various types of participation identified by Buchy and Race (2001), Nelson and Wright (1995) and Oakley (1991), the people’s participation in PERSEPSI’s forest certification program and Trees-4-Trees’ plantation program is not participation as an end/active participation/transformative participation but participation as a means/passive participation/instrumental participation. Instead of improving people’s ability to participate and increase their role, the NGOs use participation as a tool to achieve a pre-determined project. Moreover, rather than empowering them to participate in their own development more meaningfully to foster social change, the NGOs use participation to mobilise community members for efficiency of the NGOs’ service delivery.

Community participation can potentially build a sense of belonging and strengthen a community’s bonds, as well as its capacity to help itself for a better future (Midgley et al., 1986). However it would be difficult to build a sense of belonging and capacity for self-help if the participation were not spontaneous but passive. Spontaneous, self-initiative, bottom-up participation in community development is still viewed as the ideal approach of development, even though the role of external actors in initiating and supporting development is important to create a better life for communities (Midgley et al., 1986; Onyx & Leonard, 2010). Spontaneous participation may be an ideal and desirable form. However, neither Trees-4-Trees nor PERSEPSI promotes it. Promoting such participation is not simple work for Trees-4-Trees and PERSEPSI, as it needs local communities’ initiative, strong motivation, leadership, and funding independence. The local communities in Bageng and Selopuro Villages have not exhibited enough of the factors needed for spontaneous participation.

In community participation, how the participation takes place is important but also who should participate, as the term ‘community’ is broad. Hollnsteiner (1982) prefers to relate the notion of community with those of deprivation and disadvantage, for example impoverished villages or urban neighbourhoods, rather than mention all members of a community. It is the poor or the most disadvantaged community that should participate since they have little power and access to resources compared to local elites (Midgley et al., 1986).
However, not all the participants in PERSEPSI’s forest certification program and Trees-4-Trees’ plantation program are well-informed about the programs, especially those who cannot attend the meeting. For those with full-time employment, time constraints can be barriers to active participation. The peasants’ meeting in Bageng Village was during working hours. Therefore, poorer peasants (who cannot afford to pay people to work in their fields and need to work for a longer time in the fields) have less opportunity to go to the meeting. Consequently, they have less opportunity to gain information about the NGOs’ program. Participation will be ineffective if the meetings for participants are held at an unsuitable time when they are still at work (Kingston, 2007).

Women also have less opportunity to be well-informed. Even though women may have equal power with men in their domestic/household decision making, women in Bageng and Selopuro Villages are less involved in the local organisations and rarely attend peasant meetings. In Javanese culture, men are the head of household, so they play more roles in public activities, including those of peasant organisations. Only women with no husband or whose husbands cannot be actively involved in the organisation for some reason (e.g. sickness, work in other regions) are involved in peasant organisations. In Bageng Village, some women work overseas. This is another reason why women are less involved in peasant organisations.

Thus, the way Trees-4-Trees and PERSEPSI engaged peasants in their programs (in terms of participation level) shows that the NGOs’ farm forestry programs have not delivered improved participation for the peasants. This failure is due to the NGOs perceiving participation more as a tool to gain people’s support to facilitate their programs than as a goal of the programs. Consistent with Midgley et al. (1986), even though NGOs are often said to have many advantages over governments in delivering development initiatives (e.g. being less bureaucratic, more dynamic, flexible, close to the people, sensitive, committed to social needs, effective, innovative, and radical, as well as having international funding networks), NGOs such as Trees-4-Trees and PERSEPSI still have many limitations in promoting spontaneous participation.
6.3.2 The extent to which the farm forestry programs of Trees-4-Trees and PERSEPSI contribute to mitigating poverty, preventing deforestation and enhancing timber supply

The success of farm forestry development cannot only be measured from the extent to which it can rehabilitate critical lands and fulfil timber supply needs. Its ability to benefit and enhance the livelihood of peasants is also an important criteria for its success (PERSAKI, 2010).

Poverty mitigation

It is too early to estimate the impact of the tree planting activities initiated by Trees-4-Trees in mitigating poverty among peasants in Bageng Village, as they are still in the early stages (less than five years). The peasants need at least six to eight years to harvest the trees and benefit from their timber. The extent to which the farm forestry program of PERSEPSI mitigates the poverty of peasants in Selopuro Village also cannot be calculated numerically. However, it can be said that PERSEPSI’s forest certification program has not produced significant outcomes in mitigating poverty, as there are no substantial changes among the peasants in harvesting and marketing behaviour. As has been explained before, since they were awarded forest certification there has only been one transaction of certified timbers which supplied about 4 percent of demand. Therefore, forest certification has not economically benefitted the peasants since there is a gap between the aims of PERSEPSI and peasants’ values. PERSEPSI has encouraged them to maximise timber production and profit through certified timber markets. However, meeting the continuous demands for large quantities of certified timber by maximising production is beyond their capability, as their livelihood strategy is more geared to prioritising safety.

Moreover, the farm forestry programs of Trees-4-Trees and PERSEPSI cannot be described as having touched the poorest of the poor. PERSEPSI has conducted a program to help the very poor in Selopuro Village, but the program was conducted prior to, and was not part, of the forest certification program. The plantation program of Trees-4-Trees and the forest certification scheme of PERSEPSI are likely to offer more benefits for peasants whose lands are extensive than for landless peasants. The Trees-4-Trees program has not precisely aimed to empower disadvantaged people in the community (e.g. women, and
landless/the poorer peasants). The farm forestry program of the NGOs has also failed to address the gender equity issue. PERSEPSI has conducted a women’s empowerment program in the village, but it had been carried out before, and was not part of, the forest certification program.

Therefore, addressing poverty problems is not a simple task for Trees-4-Trees and PERSEPSI. Firstly, poverty covers several deprivations (e.g. material, intellectual, health, social, political and risk deprivation) (Sen, 2000). Through their programs the NGOs are more focused on addressing material deprivation than other types. Moreover, related to poverty issues, there are differences in priorities for in forest utilisation between the NGOs and their peasant clients. Poverty elimination is helping people temporarily and permanently overcome poverty by maximising the utilisation of forest as a source of savings, asset building and investment. Poverty mitigation is making the poor less poor, while poverty avoidance is preventing people on poverty the line falling below it (Sunderlin & Thu Ba, 2005; Angelsen & Wunder, 2003).

Through their programs, Trees-4-Trees and PERSEPSI prioritise the utilisation of forest as a means of poverty elimination to help people temporarily and permanently overcome poverty by maximising the utilisation of forest as a source of savings, asset building and investment. On the other hand, the peasants in Bageng Village (whose land access less than 0.1 hectares), and those in Selopuro Village usually prioritise poverty mitigation and poverty avoidance to reduce their poverty and to prevent themselves become poorer by utilising their forest for fulfilling subsistence needs, filling seasonal gaps and as a safety net during emergencies. They prefer to avoid risk rather than maximising their assets and investments through developing forest-based enterprises.
Preventing deforestation

In Bageng Village, the peasants do not have to clear forested areas to create agricultural areas. Initiated by the government, Trees-4-Trees and the peasants, tree plantation activities have been performed over the last five years. The government encouraged them to grow trees for rehabilitating their critical lands and to prevent erosion, while Trees-4-Trees assisted them to grow trees in order to develop timber enterprises and also to rehabilitate the lands. For the peasants, the motivation to become tree growers has mostly been to obtain MPTS products (e.g. coconuts) and shade for their coffee. The government declared the success of its program in rehabilitating critical and unproductive private lands in farm forestry areas in Java (PERSAKI, 2010). However, it is too early to assess the effectiveness of the activities to rehabilitate the lands in Bageng Village, as the tree plantations are still in the initial stage.

The concept of timber replacement through Trees-4-Trees’ plantation program seems to be promising in realising sustainable forest management practice. However, whether tree plantation is effective enough to replace the timbers used for furniture is arguable. The furniture is usually made from hardwood timber that takes more than 25 years to be harvested, whereas Trees-4-Trees through its plantation program usually provides seedlings of short-term harvested tree species (e.g. *Albizia*), as peasants mostly prefer them. Moreover, the Trees-4-Trees green hang-tags do not provide a guarantee that
timbers used for the furniture are harvested from sustainably managed forests. Therefore, it is questionable to what extent the short-term harvested trees, planted in Java, can ‘replace’ long-term harvested or high value trees that may be harvested from forests that are not sustainably managed. Thus, the farm forestry program of Trees-4-Trees could be viewed as supporting sustainable forest management only if manufacturers that support the program bought timbers harvested from sustainably managed forests. Otherwise, the replacement of timber used for furniture by means of a tree plantation program may worsen deforestation in other areas, where the trees are harvested for supplying the manufacturers.

It is also questionable whether through Trees-4-Trees program, consumers, manufacturers and Trees-4-Trees have supported sustainable forest management. By participating in the Trees-4-Trees program, manufacturers are most concerned with how to compete in markets and fulfil demand for green products. However, consumers are more concerned about how many trees are planted as replacements for timbers used for the purchased products, and how many peasants may benefit from the program. How many trees survive has not been the main concern of manufacturers and consumers as funding providers/ donors of Trees-4-Trees. Therefore, there is no strong pressure from donors on Trees-4-Trees to report the survival rate of the trees. In the fields, due to many causes, it is usual that some trees do not survive. If the survival rate of the trees is low, the aim of the program to ‘replace’ timbers used for furniture products and to overcome deforestation is indeed far from being realised.

Deforestation has not occurred in Selopuro Village. Conversely, tree plantation activities that have been mostly initiated by local people during the last 50 years have transformed the grazing areas that used to consist of wild grasses, bushes, bamboo and rocks into forested areas. Thus the assumption that agricultural practices and technological inventions have caused the conversion of forest areas to agricultural land (Angelsen & Kaimowitz, 2001; Brown & Schreckenberg, 1998; Geist & Lambin, 2002, 2001) does not apply in Selopuro Village, as the forested area is not fertile enough for agricultural crops. As has been explained before, their agriculture activities have been carried out in other areas near the dam that are more fertile.
The supposition of Geist and Lambin (2002) that increasing demand and prices for timber can cause people to extract timber extensively from forests is also not relevant to peasants in Selopuro Village. Even though PERSEPSI implemented its forest certification program and the peasants have been awarded certification, the people have not been motivated by the price premium paid for certified timber to harvest large quantities of trees. Indeed, they worry that taking the opportunity given by the forest certification program to fulfil manufacturers’ demand for a regular supply of large quantities of certified timber may damage their sustainable forest. That is why the afforestation program in farm forestry is more successful in rehabilitating critical lands than that of the non-farm forestry scheme. Local communities’ perceptions of trees as savings, and their harvesting model that is based on urgent needs, instead of the timber harvesting cycle, have also reduced the possibility of large-scale timber extraction.

Moreover, controlling timber consumption is important to address environmental problems caused by deforestation (Christoff, 1996b in Carter, 2001; Carter, 2001). The programs of the two NGOs emphasise controlling timber production rather than influencing the minimisation of timber consumption, without which increasing supply would not be effective enough in solving environmental problems.

Timber supply
To extent to which the community forestry program of Trees-4-Trees has contributed to timber supply cannot yet be calculated or predicted, as the program is still in the early stage and the peasants have not harvested trees from the seedlings it supplied. In estimating the extent to which the community forestry program of PERSEPSI has affected timber supply, it is necessary to calculate the supply of certified timbers, as the PERSEPSI program is a forest certification program. As mentioned above, after the peasants were awarded forest certification the forest management unit in Selopuro Village, together with those in Sumberejo Village in 2004, could only produce 35 cubic meters of logs and supply 13.6 cubic meters of logs for fulfilling demand for certified timber that was about 360 cubic meters. There had been only one transaction of certified timber up until 2010. For several reasons explained above, they prefer to sell their timber to supply domestic demand for uncertified timber. Therefore, the community forestry program of PERSEPSI has not made a significant difference in increasing the supply of certified timbers.
In terms of non-certified timber supply, in Selopuro Village the average number of trees per transaction ranges from about 5 to 29 trees. From 2004 to 2010, farm forestry in the village could supply timber from about 1,787 trees on average (e.g. teak/Tectona grandis L.f., mahogany, sonokeling, and Acacia) per year. In broader terms, the potential timber supply from Indonesia’s farm forestry, including that of Selopuro Village, can be estimated from the fact that it operates in about 2.62 percent of the total forest cover in Indonesia; further, about 77.8 percent of the overall farm forestry area is situated in Java Island. Farm forestry in Indonesia, including Java Island, has the capacity to contribute about 7.5 percent of total national timber production (RLPS, MoF 2009 in PERSAKI, 2010). This statistic shows that compared to total national timber production, farm forestry has not been a main source of timber supply, even though it cannot be said that it is not an important source.

6.4 The challenges faced by the selected NGOs in implementing their farm forestry programs

Both the Trees-4-Trees and PERSEPSI programs are top-down rather than bottom-up developed programs, reflecting donors’ and NGOs’ agendas rather than the people’s. In PERSEPSI’s case, it proposes the forest certification program to donors who have an interest in forest certification. When donors have agreed to provide funds for the program, it has not been the people but donors who have decided its intended outcome and how it should be implemented.

In Trees-4-Trees’ case, the relationship between the NGO and its donors is different. Trees-4-Trees has two kinds of donors, namely furniture manufacturers and consumers who buy the manufacturers’ ‘green products’. As has been explained before, Trees-4-Trees was initially established by some furniture manufacturers to issue green hang-tags for their wares and to implement the tree plantation program funded by the manufacturers. Subsequently, Trees-4-Trees has offered its green hang-tags to other manufacturers as an incentive to participate in the tree plantation scheme.

The manufacturers sell their green products to consumers, so consumers who buy the furniture with Trees-4-Trees’ green label are the NGO’s donors as well. The consumers
indirectly become donors of Trees-4-Trees because the manufacturers allocate some of their profits from selling the furniture to Trees-4-Trees’ program, in return for the green hang-tags they gain from Trees-4-Trees. The manufacturers (by providing money to earn the green labels) and consumers (by buying the ‘green products’) expect Trees-4-Trees to spend the money on conducting tree plantation and harvesting, and providing marketing assistance for peasants. Therefore, the aim and program design of Trees-4-Trees’ initiatives has been set from the time it was established. Trees-4-Trees only offers its program to peasants who are interested to participate in it. When the peasants agree to be participants, they are required to follow the mechanisms set by Trees-4-Trees.

**Dependency on donors and its consequence for NGOs’ performance**

Because of their funding arrangement, donors have the power to set an NGO’s agenda based on their concerns as donors (Meyer, 1995; Vivian, 1994). Both PERSEPSI and Trees-4-Trees are mostly dependent on their donors for their existence and to be able to implement their programs. Therefore these NGOs are obliged to create programs that match, or compromise with, donors’ interests. If the survival and existence of NGOs depends on donor funding, they have no choice other than implementing their donors’ policy agenda (Najam, 1996). Therefore, the targets of NGOs may change from time to time in line with donors’ preferred concerns (Samuel & Thanikachalam, 2003). PERSEPSI has no choice other than implementing its donors’ policy agenda because its survival and existence depends on donor funding. For example, the forest certification program is a new focus for PERSEPSI. PERSEPSI broadened its focus from livelihood enhancement to environmental, gender equity, democracy and human rights programs. This shows that to attract more possible donors and to survive, NGOs may change their concerns and can be opportunistic (Edwards & Hulme, 1996; Najam, 1996; Uphoff, 1993).

These NGOs’ dependency on donors has several consequences. Since PERSEPSI was established, it has received funding from several donors for various projects (e.g. advocacy, a goat incentive for poor households, food crop plantation below tree stands, women’s empowerment, SME development and forest certification programs). Each tranche of funding from donors for NGOs’ programs is usually for time-bound and particular projects (Zaidi, 1999; Edwards & Hulme, 1996). If donors decide the amount of funding, program duration, and program target, the program will be ended when all the
money has been spent and the target has been accomplished (Edwards & Hulme, 1995, 1996; Kaimowitz, 1993; Meyer, 1992; Vivian, 1994). In this case, PERSEPSI’s operations are also time-bound and project specific because its donors decide the amount of funding, program duration, and program target. Therefore, its program will be ended when all the money has been spent and the target has been accomplished even though the targeted people face difficulties in implementing the programs. When the program has finished, it will be the responsibility of the people as to whether to continue its initiatives or not. Moreover, there were no evaluation or revision processes to solve problems related to program implementation and to correct for missed targets in delivering better outcomes.

Even though Trees-4-Trees’ relationship with its donors is slightly different from that of PERSEPSI, Trees-4-Trees faces similar consequences related to funding expenditure and intended outcomes. The manufacturers do not decide how Trees-4-Trees should spend their contributions, but it has a responsibility to consumers to spend some amount of profit from purchased products so as to plant a certain amount of trees, as stated on the green hang-tags of purchased products. If their donors are less concerned with process and emphasise quantifiable outputs, NGOs tend to deliver short-term, quantifiable outputs that please their donors, rather than long-term qualitative outcomes that please their grassroots beneficiaries (Edwards & Hulme, 1995, 1996; Fowler, 1991; Kaimowitz, 1993; Meyer, 1992; Vivian, 1994; Zaidi, 1999). Reliance on donors’ limited funding has caused both Trees-4-Trees and PERSEPSI to deliver short-term, quantifiable outputs that please their donors, rather than long-term qualitative outcomes that please their grassroots beneficiaries because their donors are less concerned with process and emphasise quantifiable outputs.

Due to these limitations, PERSEPSI in its forest certification programs prioritises the number of Forest Management Units that have been assisted and have earned forest certification. The organisation is less interested in whether the peasants are able to continue the program, and enhance their benefits from it, after it has been implemented. In the case of Trees-4-Trees, by virtue of receiving donor money, it has responsibility to prove how the money has been spent and to what extent its program meets donors’ goals. Therefore, its achievement is presented more in terms of how many people have received the seedlings.
and how many trees have been planted, than how many trees have survived and to what extent the peasants understand the opportunities that result from planting trees.

Both cases studies show that, due to budget limitations, sometimes the programs have ended before the people were ready to continue their operations independently. When the programs have ceased and the NGOs have left, there is no opportunity for grassroots beneficiaries to ask for the NGOs’ support if they face any hindrances in continuing the programs. Thus the beneficiaries’ satisfaction is likely to be less important than donors’ satisfaction. It is difficult for NGOs to deliver programs that please peasants if these NGOs prioritise their accountability to their donors (Edwards & Hulme, 1996; Fowler, 1991).

Their funding dependency regarding donors may also limit these NGOs in practising their democratic and participatory functions. It causes PERSEPSI and Trees-4-Trees to become less participatory and less community-based in approach also to deliver top-down projects in which project goals, planning and methods have been decided by donors and NGOs. As mentioned before, the people’s participation in their programs is limited to providing information to the people and expecting cooperation from them. This approach can lead to the misuse of participation, so that the local community can only agree to what has been decided by donors and NGOs, and be involved in project implementation instead of project planning. Rather than being project designers that involve local communities in project planning, NGOs can become technical delivery agents or contractors for donors and governments that hire them to implement government projects (Bebbington & Farrington, 1993).

**Dependency on donors and its consequence for NGOs’ legitimacy and accountability**

In this thesis, NGOs’ legitimacy and accountability can be viewed within the relationship between NGOs and peasants – particularly from peasants’ opinions about NGOs that implement programs in their village. As mentioned previously in Chapter 2, legitimacy relates to how an organisation seeks and achieves external stakeholders’ acceptance of its existence (DiMaggio & Powell, 1983; Ganesh, 2003; Scott, 1995; Suchman, 1995), which in turn depends on several elements, including accountability (Edwards & Hulme, 1995; Lister, 2003; Saxby, 1996) and performance (Fowler, 1997; Lister, 2003; Pearce, 1997; Saxby, 1996).
Both of the NGOs reviewed in this research (i.e. Trees-4-Trees and PERSEPSI) are legally registered organisations, therefore they derive some of their legitimacy from their legality within international law and by their law-abiding behaviour. Moreover, they have a moral mission to improve the livelihoods of their beneficiaries. Besides legitimacy derived from law and morality, there are other important sources of an NGO’s legitimacy (i.e., support from the people whose rights the NGOs are trying to protect, NGOs’ performance and people’s positive perceptions of their credibility (Slim, 2002).

In both cases, compared to their regular members, board members of the peasant groups had a much better knowledge of the NGOs and their programs. For most interviewees in Bageng Village, the Trees-4-Trees’ program was viewed as a project to distribute free tree seedlings. In Selopuro Village, even though peasants typically have not focused on maximising timber production, their plots are dominated by commercial trees. They were therefore, at least initially, enthusiastic about opportunities offered by PERSEPSI to achieve a price premium for certified timber through forest certification. After their Forest Management Unit (FMU) was awarded certification, rather than having a good perception of the supporting NGOs, they became cynical about PERSEPSI and its program. Some interviewees even thought that certification was of most value for PERSEPSI and the head of FKPS. This negative perception of forest certification was mainly due to:

- Certification not having brought significant benefits to them as the peasants were not able to meet the manufacturers’ demands; and
- The FKPS and TPKS not playing any significant role in supporting the peasants’ timber enterprises.

The two cases illustrated that both the NGOs have failed to generate a high level of legitimacy from their key beneficiaries. Related to Scott’s differentiation of legitimacy (Scott, 1995), both of the NGOs relied more heavily on regulative legitimacy, aligned with operating within rules or regulations.

As mentioned previously in Chapter 2, an NGO’s legitimacy not only depends on its performance but also its accountability. How an organisation shows responsibility for justifying its actions (Edwards & Hulme, 1994; Ganesh, 2003; Gray, Dey, Owen, Evans, &
Zadek, 1997) is usually by reporting its performance transparently to its various stakeholders (Tilt, 2006). Yet when reporting their achievements, both NGOs studied for this research put much more emphasis on quantitative data or targets, rather than qualitative changes (outcomes), such as improved social welfare. For example, Trees-4-Trees focused more on the number of peasants that participated, the number of trees planted and the size of plantation areas, while PERSEPSI tended to focus on the number of certified areas. My view is that both NGOs were more concerned with ‘upward’ accountability to their donors, rather than ‘downward’ accountability to their beneficiaries, thereby reducing the legitimacy of their work in the eyes of their village beneficiaries.

Their dependency on donors has shifted NGOs’ accountability towards upwards accountability (to donors) rather than downwards accountability to their beneficiaries (Zaidi, 1999). For instance, for several reasons mentioned before, peasants face difficulties in continuing PERSEPSI’s programs implemented in Selopuro Village. When all the money from donors has been spent, the people are not inclined to continue the activities suggested by the NGO, and instead return to their previous behaviour. It seems that it was not PERSEPSI’s responsibility to ensure program sustainability. However, it is possible for NGOs to revisit their previous target area with money from other donors for implementing programs different from their previous programs, because the new donors are interested to implement them. For example, in Selopuro Village PERSEPSI has implemented several different projects at different times, each of which has been funded by different donors.

An extension of this analysis is that the NGOs adopt a tendency to prioritise and justify the interests of their donors, potentially at the expense of the interests of their beneficiaries (Ganesh, 2003; Henderson, 2002). Consequently, this can drive NGOs to focus on delivering short-term benefits that can easily be reported to donors, rather than more challenging long-term community development processes.

From the whole discussion above it can be pointed out that as Southern NGOs, the NGOs – especially PERSEPSI – tried to implement environmental standards set by international NGOs. Through forest certification, international NGOs re-articulated the issue of deforestation through their (international) campaigns and also re-framed the issue into global terms. They also organised beyond scales by constructing international
regulation and linked scales by implementing forest management standards (Arts, 2003a).

Despite the ability of international NGOs to influence international negotiations in global governance – for example in establishing and implementing environmental standards – NGOs, including local NGOs still have limitations in playing their roles as alternative development agents that focus on improving participation, empowerment and gender equality. This conclusion is consistent with the opinion of Lewis and Kanji (2009) that recognised several areas in which NGOs may experience such limitations. Instead of being involved in a wider structural context, the ability of Trees-4-Trees and PERSEPSI to implement their welfare enhancement approaches was small-scale and unsustainable. Therefore, it is difficult for NGOs to solve local problems which are closely related to wider structural issues.

The constraints of both NGOs in playing their roles as alternative development agents cannot be separated from neo-liberal development policies. Emphasising marketisation and privatisation, neo-liberal development policies have increased the interest of donors in NGOs as private service delivery agents. While this offers opportunities for NGOs to enlarge their roles in development, it has also created pressures for NGOs that can limit their roles as agents of alternative development. Consistent with Bristow (2008), the pressures from donor agencies have moved NGOs away from alternative development approaches towards neoliberal approaches that are pro-market and technology-centered. Even though NGOs in some cases could influence international negotiation in global governance, they have not been able to influence the dominance of neo-liberal discourse.
Chapter seven

Conclusions and recommendations

7.1 Introduction

Non-government organisations (NGOs) have been widely promoted as being more efficient and flexible than the state in reaching the poorest people, as well as more effective in achieving economic growth and being a catalyst for democratisation. NGOs are also expected by bilateral and multilateral aid agencies to supplement the limitations of state institutions. In particular, they are asked to address under-development and environmental issues and play a leading role to build grassroots channels, implement field-based development programs, be cost effective and adaptable, implement participatory approaches, ensure program sustainability, protect the environment from activities that hamper sustainability, practise good governance, counter state power in protecting human rights, and assist to overcome discrimination (Zaidi, 1999).

One of the roles of Indonesian NGOs is addressing development and environmental issues. This includes reducing poverty in rural areas through farm forestry programs, as according to Scherr et al. (2002), forest plantations are viewed as having the potential to improve economic growth and reduce poverty, if the peasants have support to access commercial timber markets. The peasants can derive profits from selling forest products such as timber for infrastructure construction and for charcoal, as well as from forest product processing and ecosystem services. They can also earn cash income from producing high-value timber for furniture, wood for pulp (on lower-quality lands), certified timber and non-timber forest products (Scherr et al., 2002).

Despite the potential of small-scale forest enterprises in conserving forests and combating poverty, development efforts in recent years to support peasants have placed more emphasis on the subsistence needs of the people, rather than giving them the opportunity to extract from their forests in a sustainable way to meet the fast growing demand for forest products. Therefore, peasants still receive a minor portion of the
This chapter seeks to articulate the key conclusions from this research regarding the extent to which the farm forestry approaches of the two Indonesian NGOs selected for this research – Trees-4-Trees and PERSEPSI – meet with the livelihood needs of the peasants. The chapter also draws the challenges the NGOs face in meeting their expectations. In addition, the chapter discusses the implications of this research for the operations of these NGOs in delivering economic, environmental and social benefits for the peasants via their farm forestry programs. Finally, the chapter looks at the implications of the key findings for critical theory related to the role of NGOs in farm forestry as well as for future researches. The key themes emerging from this research that are discussed in this chapter are presented in Figure 7.1.
7.2 The extent to which the selected NGOs’ approaches to develop farm forestry meet with peasants’ livelihood strategies

Both Trees-4-Trees and PERSEPSI have simultaneously sought to support the peasants to derive economic benefit from timber enterprises by helping them to develop timber enterprises, while encouraging local communities to maintain the sustainability of their forests for future generation.

Case study 1: Trees-4-Trees in Bageng Village

For peasants in Bageng Village, timber has not been a major commodity especially for those with small land holdings (less than 0.1 hectares). They grow trees mostly for firewood, non-wood products (e.g. coconut, cotton), and fodder for livestock, as well as to
provide shade, shelter, and fencing, and enhance soil conservation, rather than for timber. Results from my research indicate that peasants who have wider land holdings (more than 0.1 hectares) are more likely to plant trees for timber. Peasants in Bageng Village mostly depend on timber brokers as intermediaries to measure, harvest and transport the wood to buyers. Consequently, the timber brokers have more power to conduct measurement of timber and negotiate prices than do the peasants.

To develop the timber-based enterprises of peasants in Bageng Village, Trees-4-Trees targeted their assistance to the early stage of the business, since most peasants had not planted trees for commercial timber sales and had no particular interest in developing forest-based enterprises. Trees-4-Trees conducted a number of activities including a social impact assessment, grower training, restructuring of peasant organisations, assistance in harvesting, and directly connecting the tree growers to buyers.

Subsidies for planting and maintenance are generally important across Indonesia in motivating peasants to develop forest enterprises, but Trees-4-Trees has not provided them. Due to its limited budget and its priority in implementing the plantation program in other target areas, Trees-4-Trees has not accomplished its aim of conducting yearly tree monitoring for more than two years. More than two years after the implementation of the program, according to some peasants who monitor their trees, the survival rate of trees is less than 60 percent. Up to now, Trees-4-Trees had not assisted the peasants to establish a communication forum for tree growers at village level. Trees-4-Trees’ staff said that they offer peasants assistance in harvesting, transporting and selling timber directly to manufacturers, but the peasants at Bageng Village have not used Trees-4-Trees’ assistance in timber harvesting and marketing. Selling timber through Trees-4-Trees can reduce the long marketing chain and generate higher prices for the peasants. However, it is not possible to sell small amounts of timber (less a truck load) through Trees-4-Trees, as it connects the peasants to manufacturers that require larger quantities (to minimise harvesting and transporting cost).

The efforts of Trees-4-Trees in Bageng Village to develop a timber enterprise for maximising economic benefit for peasants looks promising enough to be acceptable to them. While the peasants’ motivation to plant trees still competes with their interest in
planting short-term crops (especially for some those whose lands are less than 0.1 hectares), there are reasons to expect that, in the future, peasants in Bageng Village (especially whose land holdings are more than 0.1 hectares) are likely to grow more trees. They are not only focused on fulfilling their subsistence needs but also maximising production and profits by means of any opportunities (e.g. by increasing production factors, production inputs and knowledge of their market) including growing trees for timber product. Lower maintenance and less labour intensive species, such as trees, are now more suitable for peasants in Bageng Village. The recent trend towards less labour being available for farming work in the village is likely to continue. Farming has become less attractive for the younger generation because when the plots are growing smaller for each person, off-farm activities are more promising for supporting their livelihood. Moreover, the recent trend to plant coffee among peasants in Bageng Village has increased the interest of the people in planting more trees as a shade canopy for coffee.

However, it cannot be expected that the peasants will replace all of their short-term crops with trees. For their survival strategies and existence, peasants have always diversified their livelihood strategies by practising agroforestry in which they grow hardwood, locally occurring trees and multi-purposes tree species (MPTS) in association with food crops and livestock to fulfil subsistence needs, generate cash and gain ecological benefits.

Case study 2: PERSEPSI in Selopuro Village
Before PERSEPSI implemented its forest certification program, the forested areas in Selopuro Village had been in existence for about 50 years, and there was a general acceptance that they practised sustainable forest management. For peasants in Selopuro Village, trees have not only supported their daily needs (e.g. firewood, fodder and wood for building) and improved ecological conditions, but have also supported them during emergencies and difficult times (e.g. to pay medical, funeral, or education costs).

Despite the potential of their small-scale forest enterprises (SFEs) to provide a greater economic benefit, which has been detailed above, the peasants in Selopuro Village have not managed their SFEs to maximise possible profit. Their forest enterprises are typically owned by individuals or families with limited managerial capacity and marketing
skill/knowledge; thus it is not easy for the SFEs to enhance the commercial value of their forests. Before PERSEPSI implemented the forest certification program, there was no coordination among the peasants of forest enterprise activities (e.g. tree maintenance, harvesting and marketing occurred on an individual basis). The peasants had their own organisations but these were for managing agricultural activities and for coordinating the government’s tree plantation programs. For timber marketing, the peasants have depended on timber brokers as intermediaries to harvest and transport the timber to the buyers. The timber brokers measured the trees and decided the timber price, so the peasants had minimum bargaining power over the timber price.

Based on the potential of SFEs to minimise poverty, and due to the limitations of the peasants in managing their SFEs, PERSEPSI supported by its donor implemented the forest certification program in Selopuro Village. PERSEPSI expected that forest certification would give an opportunity for the peasants there to access new markets for certified timber in the broader economy, and to earn higher profits from the price premium of their certified products. In dealing with the financial and technical limitations of the peasants in achieving standards of forest certification, PERSEPSI has provided assistance to improve their forest enterprises and to obtain forest certification.

Several efforts have been made by PERSEPSI to realise these goals. First, it strengthened the organisation of peasants as forest producers by creating a peak body for peasants’ organisations called the Peasant Community for Certification (KPS/Kelompok Petani Sertifikasi), and by establishing the Forum of Peasant Community for Certification (FKPS/Forum Komunikasi Petani Sertifikasi) to coordinate forest enterprise activities at the village level. Second, it improved the peasants’ competitive position in the market by establishing the Certified Wood Management Unit (TPKS/Tempat Penitipan Kayu Sertifikasi) that replaced timber brokers in timber harvesting and transportation activities. The TPKS acts as a market intermediary that connects the peasants directly to buyers of certified timber. Third, it improved the SFEs’ administrative system (e.g. forest management planning, tree inventories, land inventories). With better tree measurement, a shorter market chain and higher prices for certified timber, it was anticipated that the peasants would gain greater economic benefit from their forest enterprises.
What PERSEPSI has done with the peasants in Selopuro Village seems to be promising. As already stated by following the forest certification standards the SFEs’ administrative system has improved. Moreover, the certification of Selopuro Forest Management Unit has attracted much support from external actors that, in turn, provide technical and financial assistance to further develop its timber enterprises and for other needs. For example, after they were granted forest certification, there was financial and technical assistance from donors (LEI and WWF) through PERSEPSI for establishing home industries such as handicrafts and producing furniture made of timber waste, as sources of alternative income. Other financial assistance came from the district government to build a water tank for community use. In the future, the forest certification may attract payments for environmental services (PES) (e.g. water and hydrological, carbon sequestration and biodiversity services), since PES agreements also require high standards of sustainable forest management.

Despite these improvements, since Selopuro Forest Management Unit was granted forest certification and PERSEPSI’s role ended, there has been no significant difference in the way they manage their forest enterprises. The peasants do not use the Peasant Community for Certification (KPS/Kelompok Petani Sertifikasi) and the Forum of Peasant Community for Certification (FKPS/Forum Komunikasi Petani Sertifikasi) anymore to organise their timber enterprise activities. Thus, there is no coordination of planting, maintenance, harvesting, transporting, and marketing of trees within the Selopuro Forest Management Unit. Those forest enterprise activities are still managed by individuals. The peasants have only once sold their certified timber through the Certified Wood Management Unit (TPKS/Tempat Penitipan Kayu Sertifikasi). Since then they have continued to use timber brokers who value their certified timbers as non-certified timber and hence at a lower price than that of certified timber. The home industry program has also ceased operations, as the workers were not satisfied with the level of income and faced difficulties in meeting the required product standard. The question is why the efforts of PERSEPSI in developing forest enterprises for the peasants by providing technical and financial supports have not been enough to bring about sustained positive changes in their forest enterprises. My research revealed considerable gaps between the expectations/goals of PERSEPSI on the one hand and the ability, capability, and preferences of the peasants on the other.
The NGO’s process for forest certification offers the opportunity for the peasants to profit from protecting the environment by integrating ecological criteria into the production process. Therefore, PERSEPSI and its donor (WWF) viewed forest certification as an ideal way to enhance the benefits from SFEs for peasants in Selopuro Village and reward their efforts toward sustainable forest management. Being a non-state market-driven governance system or a market-based instrument (MBI), forest certification uses global market demand to regulate forestry practices. Through its forest certification program, PERSEPSI tried to utilise the potential of global market demand in reversing the downward effects of globalisation, and to bring benefits to peasants from forest enterprises.

To be able to enhance benefits for the peasants from their forest enterprises, PERSEPSI has supported them to meet global market demand by accessing certified timber markets that can value their products at a higher price than before. However, it is difficult for the peasants to meet global market demand. Manufacturers’ needs for certified timber require a regular supply of large quantities of high quality certified timbers. Yet peasants in Selopuro Village prefer to grow trees not merely for profit but also for ecological and social benefits, and as an economic ‘safety net’ or long-term investment.

Even though they can maximise profit from their timber, their livelihood strategies are more motivated by subsistence behaviour that prioritises risk-adverse strategies (safety first) in their economic activities. They tend to minimise their consumption (e.g. limit calorie intake, only buy basic goods, and consume foods that are produced from their lands) rather than maximise production (e.g. by increased production factors, production inputs and knowledge of their market). Having prioritised forestry as a ‘safety net’, the peasants consider that any harvesting of trees should occur to satisfy urgent or occasional financial needs, instead of as a way to maximise timber production or profitability. Therefore, they usually provide an inconsistent supply of small quantities (less than a truckload), consisting of various species, sizes and quality of timber. Thus, the apparent advantages of forest certification appear less relevant to the livelihood strategies of peasants in Selopuro Village.

If TPKS as a market intermediary had enough financial resources, it could help peasants in meeting the demand for large quantities of certified timber. With enough
financial resources, the TPKS could buy available tree stands, pay cash directly, and harvest those tree stands when their timber stocks are enough to supply demand. However, similar to the condition of market intermediaries for peasants in other regions, the TPKS cannot solve the problem because it lacks the capital resources to hold large standing supplies of timber. Besides, manufacturers are not only concerned with the quantity of supply but also its quality and regularity, so that satisfying the global market demand for certified timber becomes more difficult for the peasants. The FKPS is also incapable to play of coordinating forestry activities (especially timber harvesting and marketing) among the peasants. However, there is no initiative among them to change its board members.

The two cases given above illustrate that it is not always easy for NGOs to be responsive to grassroots conditions if they have tried to implement a global intention at local level – rather than assimilating local intentions with the global level. The latter are not always applicable at the local level if they are incongruent with local conditions. In turn the NGOs’ tendency to apply global intentions at local level rather than vice versa is closely related to how these organisations have developed. Instead of being driven by grassroots forces, the emergence and development of PERSEPSI and Trees-4-Trees has been mainly due to the top-down process of political globalisation as well as to economic globalisation within the neo-liberal agenda. Therefore, how they play their roles is closely related to donors perceiving them as preferred agents in the practice of global freemarket capitalism for achieving economic growth, promoting participation and reaching the poor. These NGOs have chosen to engage with the system to create changes by connecting community organisations to the market, rather than implementing their programs as a resistance tool against neo-liberalism and globalisation.
7.3 The extent to which the selected NGO-led approaches to farm forestry improve participation levels and address poverty, deforestation and lack of timber supply

Case study 1: Trees-4-Trees in Bageng Village

In terms of participation outcome, the farm forestry programs of Trees-4-Trees have not delivered improved participation for the peasants, as the degree of peasant participation in Trees-4-Trees program is only receiving information. Even though peasant participation in the Trees-4-Trees’ programs is not coerced, the programs are top-down directed development, as the goals and implementation methods of the programs have been determined by Trees-4-Trees without any involvement from the peasants. Therefore, the NGO perceived participation more as a tool to mobilise peasants for efficiency of program implementation and to gain their support to facilitate the program rather than as a goal of the program.

My research found that not all the participants in the Trees-4-Trees’ plantation program are well-informed about the program. While Trees-4-Trees staff provided information about its program in peasant organisations’ meetings, these were usually held in the middle of the day. The result was that board members of peasant organisations typically gained a better understanding about the Trees-4-Trees program than other members. Poorer peasants who worked longer hours in the fields, and could not afford to pay people to work in their fields when meetings occurred, had less opportunity to go to the midday meetings to obtain information about the program. Also, women tended to be poorly informed as they rarely attended the meetings. In most cases, men play a more active role in formal meetings outside the household and women are only likely to attend the meetings if they do not have a husband, or their husband was not able to be involved due to reasons such as sickness, or working in another region.

In terms of poverty mitigation, it is too early to measure any impact of Trees-4-Trees’ community forestry program as the activities are still in the early stages (only 4-5 years since commencement). Also the peasants in Bageng Village have not yet sold timber through Trees-4-Trees, so the impact of the Trees-4-Trees program on enhancing timber
supply cannot be calculated at this stage. However, the program may not be effective enough to benefit the poorest of the poor. Since the focus of the Trees-4-Trees program is on tree plantations, peasants with limited areas of land as well as landless peasants may gain little benefit from the program, whereas peasants with more land may gain greater benefit from the program.

In terms of deforestation, it is too early to claim that Trees-4-Trees’ program has been able to rehabilitate critical areas in Bageng Village, as the tree plantations are still in the initial stage. The concept of timber replacement through Trees-4-Trees’ plantation program seems to be promising in realising sustainable forest management practice. However, the aim of the program to ‘replace’ timbers used for furniture products and to overcome deforestation is far from being realised because the Trees-4-Trees green hangtags for manufacturers do not provide a guarantee that timbers used for the furniture are harvested from sustainably managed forests. Also, Trees-4-Trees replaced high value hardwoods used by manufacturers with short-term harvested trees in its plantation program in Bageng Village. Moreover, in assessing its achievement, Trees-4-Trees focused on how many trees were planted and how many peasants were involved rather than the survival rate of the trees, which is relatively low in Bageng Village.

Trees-4-Trees’ tree plantation could be viewed as supporting sustainable forest management only if: first, manufacturers that supported the program bought timbers harvested from sustainably managed forests; second, Trees-4-Trees ‘replaced’ high value trees used by manufacturers with high value trees in its plantation program; third, Trees-4-Trees continually monitored the survival rate of the trees planted by peasants.

**Case study 2: PERSEPSI in Selopuro Village**

The participation outcome for farm forestry programs of PERSEPSI is similar to that of Trees-4-Trees’ program, in that neither have encouraged the peasants to meaningfully participate in the program. The peasants only received information about the program without being involved in problem investigation, decision about goals, or program planning. Instead of setting participation as a goal of the program, PERSEPSI used participation as a tool to realise its program goals.
Moreover, not all of peasants were well informed about the program. The board members were better informed about the PERSEPSI programs than the general members of peasant groups. In addition, women typically had less opportunity to be well-informed because they rarely attended the meetings. Even though they may have equal power with men in their domestic/household decision-making, women in Selopuro Village are less involved in peasant groups. The exception is for women who do not have a husband or whose husband cannot actively participate in the peasant groups due to reasons such as sickness, or working away from home.

The extent to which forest certification has mitigated poverty in Selopuro Village cannot be quantified, but there has been only one transaction involving certified timber since the peasants were granted forest certification in 2004. They still sell timber when they need cash for urgent needs, but they continue to sell it through timber brokers who value it as uncertified timber at a lower price than that of certified timber. Consequently, the forest certification program has not significantly increased profits or generated economic benefits for the peasants. Moreover, similar to the outcomes from Trees-4-Trees’ projects in Bageng Village, my research found in Selopuro Village peasants with limited access to land, landless peasants, and peasants who plant fewer trees have fewer opportunities to benefit from the forest certification programs, whereas peasants with greater access to land and who planted more trees gained greater benefit from the programs.

Tree plantation activities have been mostly initiated by local people in Selopuro Village during the last 50 years. Through its forest certification program, PERSEPSI offered the opportunity for peasants to gain higher prices for their certified timber, after Selopuro Forest Management Unit was awarded forest certification. However, the peasants have not been motivated to harvest large quantities of trees, as they worry that taking the opportunity given by the forest certification program to fulfil manufacturers’ demand for a regular supply of large quantities of certified timber may damage their sustainable forest. Their perceptions of trees as savings, and their harvesting model that is based on urgent needs, instead of the timber harvesting cycle, have reduced the possibility of large-scale timber extraction.
7.4 The challenges faced by the selected NGOs in implementing their farm forestry programs

Despite expectations of NGOs being innovative, participatory, field-based, effective, efficient and flexible agents in reaching the poorest people, the reality of the situation I explored in Indonesia appeared to be quite different. The cases of Trees-4-Trees in Bageng Village and PERSEPSI in Selopuro Village show why NGOs face limitations in delivering intended changes for peasants.

To survive as organisations and be able to implement their programs, Trees-4-Trees and PERSEPSI depend fully on funding from their donors. An inherent situation for all NGOs who wish to work for poor people, this dependency has several consequences that may limit the ability of the two selected NGOs to deliver the intended changes. As revealed in my research, the consequences of the dependent relationship with donors faced by PERSEPSI and Trees-4-Trees include:

- The NGOs’ agendas are mainly based on donors’ concerns and interests. As a consequence, the NGOs’ programs are more reflective of top-down development rather than ‘grassroots’ development;
- The dependency on donor funding also makes NGOs less responsive to the local people’s livelihood issues and values. In turn, it has limited the NGOs’ ability to address the more substantial issues experienced by people at the ‘grassroots’;
- Since funding from donors for NGOs is usually for time-bound and task-specific projects, it is difficult to guarantee program sustainability, undermining the establishing of long-term trust-based relationships between NGO staff and peasants;
- Since the donors focus on quantifiable outputs, the NGOs tend to prioritise short-term quantifiable outputs rather than long-term qualitative outcomes (e.g. data about progress in addressing challenging social issues such as the gap between the rich and poor, gender equity, improvement in community participation);
- Since the programs have been planned and designed by donors and NGOs, the NGOs tend to view of community participation as a tool to achieve
relatively narrow pre-determined project goals rather than as a holistic process for community development. The NGOs generally adopted a model of participation that mobilised the community for service delivery efficiency, rather than seeing participation as a potentially transformative process to improve the people’s ability to participate in their own development more meaningfully;

- Their dependency on donors has led to NGOs’ accountability being more ‘upwards’ to satisfy donors rather than ‘downwards’ to meet the needs of their ‘grassroots’ beneficiaries; and

- NGO’s legitimacy not only depends on their performance but also their accountability. Having been more concerned with ‘upward’ accountability to their donors, rather than ‘downward’ accountability to their beneficiaries, their legitimacy and that of their work has been reduced in the eyes of their village beneficiaries. The targeted NGOs have failed to generate a high level of legitimacy from their key beneficiaries. Rather, they have relied more heavily on *regulative* legitimacy, aligned with operating within rules or regulations.

The main challenges facing the NGOs are presented in Figure 7.2, below.
7.5 Summary of key findings

The key findings from my research include the following:

1. Using green labels and forest certification as a market-based instrument that employs global market demand to regulate forestry practices of peasants conducting agroforestry, the NGOs I studied for this research (PERSEPSI and Trees-4-Trees) reversed the downward effects of globalisation to deliver economic benefit to the peasants as tree growers while also protecting the environment;

2. The two NGOs have improved the peasants’ understanding of timber administration and market systems, but the NGO-led community forestry programs have not yet delivered significant development outcomes in the form of poverty alleviation, improved social equity or greater participation. This failure demonstrates that implementing production methods oriented to global
demand can be ineffective if it is not compatible with local conditions and values;

3. Since the NGOs completed their programs, the peasant organisations (e.g. Peasant group/ KPS, FKPS and TPKS) have not played their part in supporting peasants’ timber enterprises. Both NGOs realised the importance of peasant organisations not only to coordinate peasants’ forestry activities (e.g. planting, harvesting, marketing) but also to enhance the bargaining position of timber producers in dealings with their buyers. However, both NGOs seemed to be more concerned with formally establishing the organisations rather than ensuring their capability of playing their roles as peasant groups;

4. For peasants in Bageng and Selopuro Villages who practise agroforestry, growing trees in association with food crops and livestock has always been important to fulfil subsistence needs, generate cash and gain ecological and social benefits. Therefore, it could not be expected that the peasants would maximise profits by viewing their forests merely as timber enterprises;

5. Forest certification has much appeal internationally. However, from my research it is yet to demonstrate much relevance or value for peasants growing commercial trees, as the role of trees and commercial forestry are viewed differently by most peasants in Selopuro Village (i.e. who don’t seek to maximise the income from forestry as it mainly serves as a ‘safety net’ and maintains social relations), compared to the staff of PERSEPSI and their donors (i.e. who see forestry as a core commercial enterprise); and

6. The two NGOs depend heavily on a small number of parent donors and thus operate in a ‘compromised’ environment. Instead of operating without limitations in exercising their vision and operating goals, the NGOs are obliged to compromise with the interests of their donors. This can cause the NGOs to implement top-down, time-bound, task-specific programs that are more satisfactory to their donors than their ‘grassroots’ beneficiaries. Therefore, this bias can limit the NGOs in their roles as change agents that are participatory, community-oriented, flexible, innovative, cost-effective, democratic, and sustainable project implementers.
7.6 Theoretical contribution

As mentioned above, the emergence of NGOs in the modern world is closely related to the implementation of neo-liberal strategies through ‘Structural Adjustment Programs’ that reduce states’ support for public services. Their emergence is also related to the ‘New Policy Agenda’ which expects NGOs to be alternative agents to government in reaching the poorest people, in achieving economic growth and as catalysts for democratisation. There has been increasing aid transfer from intergovernmental organisations, as well as bilateral and multilateral aid agencies, for NGOs. However, it is not always easy for NGOs to realise these expectations. This research has corroborated the assertions made earlier about the independence of NGOs (e.g. by Alatorre & Aquilar (1995); Bornstein (2003); Ebdon (1995); Ebrahim (2002); Edwards & Hulme (1995) (1996); Elbers & Arts (2011); Elbers & Schulpen (2010); Fowler (2000); Hailey (2000); Kaimowitz (1993); Lister (2000); Murtaza (2012); Najam (1996); Vivian (1994); and Wallace et al. (2006)). It shows that to obtain the necessary project resources and to ensure their survival, NGOs prioritise the demands of donors by synchronising their agendas with required conditions set by the said donors. This in turn can limit their abilities to exercise participatory approaches, to be sensitive to local knowledge and culture, and to build connections with the grassroots level.

Small-scale farm forestry has potential in both conserving forests and addressing poverty problems. However, peasants as small-scale forest producers, especially poor households, still receive only a small portion of the commercial benefits from plantation-derived timber and processed timber products. Not only they have faced financial and technical limitations in developing their timber enterprises, they also depended heavily on timber brokers as intermediaries so that are in a weaker bargaining position than timber brokers to decide timber prices. Scherr (2004) and Scherr et al. (2002, 2004) considered that it is important to support the low-income forest dependent people by emphasising not only meeting their subsistence needs, but also giving opportunity to them to extract their forests in a sustainable way. This goal could be achieved through developing timber enterprises (e.g. strengthening peasant organisations, conducting target education and research into community forestry, improving peasants’ competitive position in the market, and developing strategic business partnerships) as well as by revising policy that hampers the community forestry.
In accordance with this view, the two selected NGOs in this research (Trees-4-Trees and PERSEPSI) have provided financial and technical support to develop peasants’ timber enterprises. However, this research revealed that these supports have not been effective enough to motivate the beneficiaries to compete in the certified timber market, because PERSEPSI has failed to assimilate its intentions with those of the peasants. PERSEPSI is likely to emphasise productivity and intensive utilisation of forests to gain as much as profit as possible for the peasants; while the peasants prioritise forest utilisation for fulfilling subsistence needs, protecting against seasonal gaps, maintaining social relationships and as a safety net. This intention gap has resulted in ineffective project implementation, created dependence and led to passive participation, as the peasants went back to their previous habits when the forest certification program was completed and PERSEPSI left.

In related to economic behaviour of peasants, Scott (1976, 1983) argued it is motivated by subsistence morality that prioritises safety (safety first) in their economic activities including their agriculture. Conversely, Popkin (1979, 1986) argued that instead of being dominated by subsistence considerations, peasants are very rational in their economic activities and take any opportunities to maximise profits. This research found that peasants’ economic behaviour varies in different places. Also, that peasants’ preference as to whether to maximise profit or to prioritise safety is not rigid a choice. This research corroborated the assertion made earlier by Wolf (1983), that peasants can use contradictory strategies of maximising profits and prioritising safety at the same time; thus they occupy a continuum between ‘safety oriented and market oriented/risk taking’.

7.7 Recommendations

Dependency on donor funding for their programs appears to be a major challenge for most of the NGOs in Indonesia involved in development. Funding from donors offers opportunities, but also includes inherent dangers. NGOs need the funding to support their operations in creating positive change in communities, but dependency on donors can limit their effectiveness as alternative development agents.
The constraints on Indonesian NGOs playing a role as alternative development agent cannot be separated from neo-liberal development policies that became hegemonic in the early-1990s in Indonesia. While the neo-liberal agenda offered opportunities for NGOs to expand their roles in development, it was generally done at the cost of being unable to act as agents of alternative development. To improve global economic growth, the proponents of neo-liberalism implemented its agenda through the global transformation effort. The promoters of this agenda were supported by the World Bank, the International Monetary Fund and the World Trade Organisation -- bodies that not only restructure world societies through structural adjustment programs (SAPs) but also pressure donor agencies to implement their agenda. Their pressure on donors can depolitise NGOs and shift the focus of NGOs as alternative development agents (that promote participation, empowerment and gender equity) towards more technical or management approaches. Even though some international NGOs, such as WWF, have been able to influence some global agreements (e.g. promoting environmental awareness and setting environmental standards), they have not been able to reduce the dominant influence of the neoliberal discourse. Dependency on donors’ funding often limits the capacity of local NGOs, such as Trees-4-Trees and PERSEPSI to play their roles as alternative development agents. For NGOs, reducing the dominant influence of neoliberal discourse is even more beyond their capability.

In terms of enhancing the roles of NGOs in assisting peasants to develop farm forestry, from my research I suggest a number of improvements that could be made:

- Local values and conditions vary from place to place, even within the same country. Attempting to implement uniform programs and approaches for different target areas with different local values and conditions is unlikely to be effective in addressing grassroots problems. Ideally, to ensure program acceptability and enhance program effectiveness in addressing local problems, it is important for NGOs to conduct studies of local conditions and dynamics before implementing their program. Both NGOs in this research had conducted socio-economic surveys before implementing their program. However, they seemed to be done as a formality to fulfill funding requirements. Therefore, the NGOs have not adequately considered local problems and people’s limitation in implementing their programs. NGOs should conduct more in-depth studies through interviews and focus group
discussions at the local level to investigate local interests, strengths, weaknesses, values and opportunities --, rather than only conducting a simple survey. Moreover, the study should be conducted not only as a formality to fulfill funding requirements. Instead, it should be used for consideration in arranging strategies and approach before implementing the NGOs’ program. To gain funding for these activities, NGOs could include this priority in their funding proposal to donors. NGOs should be able to lobby their donors on the grounds that these activities are as important as program implementation, because they are important for ensuring local acceptability and program sustainability. Therefore, if donors approve NGOs’ proposals, the study can be conducted as part of the program;

- To enhance acceptability of NGOs’ program at local level, it is important for NGOs to build communication with other related stakeholders, for example the regional house of representatives, district forestry service, and other NGOs working in the same region. Through such communication, NGOs could not only could announce their programs but also gain information from local people about local conditions (e.g. strengths and limitations in a certain area) and open the opportunity for building collaborative programs. Working with other organisations, agencies and companies by creating collaborative programs is important in order to overcome funding limitations, and to enhance program effectiveness and efficiency. For example, in Selopuro and Bageng Villages, there are overlapping target areas and programs between the NGOs and local government agencies. There is limited or little collaboration between the NGOs and local government. These agents’ programs would be more effective and efficient if they collaborated as partners. NGOs also could lobby companies conducting CSR (Corporate Social Responsibility) programs to create collaborative programs. Funds for projects could be managed separately, or in some cases combined to implement a collaborative project;

- Both case studies in this research illustrated that both NGOs have not conducted routine program monitoring and evaluation after their program implementation. After the programs were implemented and the NGOs left, the local people returned to their previous behaviour. If donors took greater interest in program monitoring and evaluation it would be less common for NGOs to miss important goals, such as addressing critical development problems. To achieve their intended goals and
maintain program sustainability, NGOs should explicitly include monitoring and evaluation cost in their proposal and lobby their donors about the importance of monitoring and evaluation for program sustainability. NGOs can also seek funding from other donors who are interested in funding systemic program monitoring and evaluation processes;

- The peasants in this research did not meaningfully participate in the NGOs’ programs, since both NGOs tend to focus more on quantitative rather than on qualitative achievements. Therefore, the NGOs’ programs have not significantly affected their livelihood. NGOs need to have a strong commitment to improving people’s lives rather than apparently using disadvantaged people as a means of obtaining money from donors. The NGOs need to shift their focus to achieving qualitative outcomes even though this may reduce their quantifiable outcomes. To minimise these negative consequences, the NGOs could better promote the achievement of the more substantive qualitative outcomes (e.g. promotion in their annual reports or on their websites about enhanced participation levels and improved livelihood). Willingness to assess and publish both qualitative and quantitative achievements may influence other NGOs to do the same and influence donors to put more emphasis on achieving balanced outcomes;

- Dependency on donors seems to be problem for some NGOs, including PERSEPSI and Trees-4-Trees. To minimise dependency on donors, NGOs could build social entrepreneurship. To create social entrepreneurship, NGOs can use their sources or can build business partnerships with other actors (e.g. individuals, other NGOs, private companies, state-owned companies). As social entrepeneurs, NGOs could use the net profit from the business to support their operational cost. For instance Indonesian NGOs called TELAPAK runs a cafe business for this reason;

- Among the limitations of peasants in planting trees are the needs of alternative short-term income and subsidies for tree planting and maintenance. While planting trees can generate economic benefits for tree growers, using the current arrangements it takes more than 5 years before growers receive any financial returns. The NGOs that encourage people to plant trees should also include activities that provide an alternative short-term income as part of the program. People with limited income also need subsidies for planting and maintaining trees. Providing subsidies for silvicultural management during the establishment years
would encourage people to plant and maintain trees which, in turn, would be likely to increase the survival rate of planted trees;

- The role of peasant groups and other peasant organisations related to forestry is important in coordinating peasants’ forestry activities including the activities initiated by NGOs. Both case studies show that the target NGOs were more concerned with formal group establishment, rather than ensuring the capability of peasant organisations to play their roles in forestry activities. Therefore, when the NGOs left, the organisations could not maintain their function. To enhance the capability of the organisations (e.g. in management, networking, lobbying), NGOs should concern themselves with leadership within peasant organisation, local good governance, and critical awareness among local people about the dynamics and mechanisms of peasant groups. NGOs should ensure that peasant groups they work with have regular leadership cycle mechanism to minimise power abuse and to enhance performance of the peasant group. In realising local good governance, NGOs should be able to support the democratisation process by promoting transparency (e.g. in financial, activities), participation (e.g. decision making in groups related to program planning, implementation and evaluation, and the election of board members) and accountability (e.g. in financial, activities). To accommodate the opinions and interests of members of peasant groups, it is also important for NGOs to encourage critical awareness of people about these groups by, for instance, facilitating group discussion and encouraging members to regularly conduct the group activities. Moreover, while peasant groups in both villages are financially independent, other peasant organisations (e.g. TPKS) have financial limitations. In view of this fact, the TKPS cannot play its role in replacing timber brokers. To address this financial problem, NGOs could lend them some money until they can independently support their operational cost; and

- Due to the limitation of external actors in maintaining program sustainability, self-initiated development is needed. To be able to organise a community, self-initiated development needs leadership. The problem is that leaders may not emerge easily among members of a community. To ensure program sustainability, before and during program implementation, NGOs could encourage, guide and provide room for people who are potential leaders to play their roles in NGO programs. In selecting potential leaders, they should seek and encourage people with several
abilities, such as: energy and commitment to pursue shared goals; practical management skills to conduct the projects, and the ability to share their skills with other people; a vision that is suited to their communities and the ability to identify possible ways to achieve it; being able to share their decisions with other stakeholders; being able to build links with outside networks; and to prepare success planning to encourage other people to become future leaders.

7.8 Possible future research

My research has revealed the extent to which the two selected NGOs were effective in delivering changes, benefits, and improvements for peasants in Java through farm forestry programs. It also identified the limitations and challenges faced by the NGOs. The two selected NGOs are limited by their dependency on donors’ funding. Although the recommendations outlined above seek to provide possible solutions to deal with the various limitations, the entrenched problem remains of how to reduce the organisations’ dependency on donor funding. Further research is required to seek solutions to problems relating to the challenges faced by NGOs in development programs and to their relationship with donors.

Such research would be valuable in improving program effectiveness in delivering benefits to target groups. Further research comparing government-led farm forestry programs with NGO-led farm forestry would also be valuable in developing more effective farm forestry programs, as both government agencies and NGOs could learn from each other’s experiences. It would also be useful to conduct research into relationships between government agencies and NGOs in farm forestry programs, to assist in the design of potential collaborative projects.

Peasant groups are important in supporting the agroforestry practices of their members (i.e. coordinating planting, harvesting and marketing); however my research revealed that in peasant groups, the elite people (e.g. richer and/or better educated, and male peasants) usually played a greater role in decision making. Therefore, study about the participation of peasant groups’ members is important to improve peasant organisations, so that they become more democratic, representative, participatory and legitimate.
7.9 Reflections on the research

The fieldwork for this research was funded by Charles Sturt University under the usual funding arrangements for post-graduate researchers, which only enabled me to spend a period of 35 working days in the field in Indonesia. It was challenging to collect the data within the limits of the budget and time available. Another challenge was that I had arranged to conduct my fieldwork in October 2010 in central Java. Unfortunately the eruption of Mt. Merapi caused considerable devastation in the surrounding districts where I was to undertake my fieldwork. Many people had to be relocated, and NGOs had to change the focus of their activities to support local communities affected by the eruption. This resulted in delays in conducting fieldwork through arranging new research locations and organisations for my in-depth fieldwork.

Another problem that occurred was that the outcomes of a selected NGO were not advanced enough as the implementation of the program was still in an early stage. Therefore, I decided to investigate another NGO which had implemented its program for a longer period, thus providing more data about outcomes of the program. I also had difficulty in investigating the internal organisation of the NGOs and furniture manufacturers for reasons of business confidentiality. A further limitation of the research was that of time and funding to interview the managers of the donor organisations connected to the two NGOs. In conducting the research, I sought to avoid influence from prejudicial opinion on the NGOs so as to limit any bias that might emerge. However, I have previously worked for an NGO and therefore have a good understanding of the issues and challenges they face.
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Appendix A1: Participant consent form

PARTICIPANT CONSENT FORM

Research on deepening understanding how to optimise the role of NGOs for community forestry in Indonesia

This statement will be read to potential interviewees/workshop participants in Bahasa Indonesia by the key researcher – Yustina A. Murdiningrum.

1. I would really value your participation in a free-flowing interview (discussion) with me for about 1-2 hours, on the topic of your involvement in forestry and the role of the local peasant group.
2. I would like to take hand-written notes of the key points of our interview (discussion) and have an audio to record our discussion as you happy with this.
3. All the information from our interview will be anonymous, so that your name will never be recorded on interview information sheets or in research reports.
4. You are free to withdraw your participation from this research at any time, and you will not be subjected to any penalty or unfair treatment.
5. I have a copy of this consent form and information sheet for you that provide an overview of my research and my contact details.
6. Do you have any questions about the purpose of this research, or how the interview will be conducted

Contact details for the key researcher:
Yustina A. Murdiningrum
School of Business, Faculty of Business - Charles Sturt University, Po Box 789, Albury, NSW, 2640. Australia.
Tel. +61-2-60519881; mobile: +61403404972; Email: ymurdiningrum@csu.edu.au.

Contact detail for Principal Supervisor:
Dr. Digby Race
Institute for Land, Water and Society – Charles Sturt University,
Po Box 789, Albury, NSW, 2640. Australia.
Tel. +62-2-60519940; mobile: +61419638406; Email: drace@csu.edu.au.

Note: Charles Sturt University’s Ethics in Human Research Committee has approved this project. If you have any complaints or reservations about the ethical conduct of this project, you may contact the Committee through the Executive Officer:
The Executive Officer
Ethics in Human Research Committee
Academic Secretariat
Charles Sturt University
Private Mail Bad 29, Bathurst, NSW, 2795. Australia.
Tel. +61-2-63384628; Fax. +61-2-63384194
Any issues you raise will be treated in confidence and investigated fully and you will be informed of the outcome.
Appendix A2: Interview and observation guide

Household interview with peasants

Respondent code: District: Village: Date:

1. Household size (number of people who live in the same residence) and component/activities of community forestry (kind of activities to support household living cost from forest):

<table>
<thead>
<tr>
<th>No.</th>
<th>Sex</th>
<th>Age</th>
<th>Education</th>
<th>Component/activities of community forestry that support household living cost, if any (e.g. timber/food/fuel wood/grass collection etc.)</th>
<th>Time which is spent for community forestry activities/day, if any</th>
<th>Other Occupation/Employment, if any</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Sources that support household living cost from community forestry activities and other occupation:

<table>
<thead>
<tr>
<th>Sources that support household living cost</th>
<th>Percentage each source that support household living cost out of the whole sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber product: ......................................</td>
<td></td>
</tr>
<tr>
<td>Seasonal crop: .......................................</td>
<td></td>
</tr>
<tr>
<td>Livestock/animal product: ...........................</td>
<td></td>
</tr>
<tr>
<td>Other Sources: .......................................</td>
<td></td>
</tr>
<tr>
<td>Other Sources: .......................................</td>
<td></td>
</tr>
</tbody>
</table>

3. Land holding category:

<table>
<thead>
<tr>
<th>Type of utilization</th>
<th>Size and tenure (example: 2ha (*1)+1ha(*6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential &amp; yard</td>
<td></td>
</tr>
<tr>
<td>Agricultural</td>
<td></td>
</tr>
<tr>
<td>Forestry</td>
<td></td>
</tr>
<tr>
<td>Other: .................</td>
<td></td>
</tr>
</tbody>
</table>

*1-Own  *2-Share in  *3-Share out  *4-Rented in  *5-Rented out  *6-Communal land  *7-Other, if any
Interview guide for peasants

1. Involvement in commercial use of community forestry area
   - Years of involvement in commercial use of community forestry area
   - Reason to be involved in commercial use of community forestry area
   - Considerations to plant trees and other crops
   - Changes (e.g. ecological, social, forestry and agricultural practices) over the past 5 to 10 years (reasons: how, when, what caused)
   - Short-term and long-term benefits of commercial use of community forestry/has it made a difference for you (give EVIDENCES, e.g. ecological improvement, economic, social cohesion)
   - How to compare the benefits from planting trees to the benefits from planting other crops
   - Allocation of benefit and who get most benefit
   - Plan in the future in your agriculture and forestry practices
   - Contribution of community forestry to wider community

2. Involvement in peasant group
   - Years of involving in peasant group
   - Reason to be involved in peasant group
   - Benefits of your involvement in peasant group (give EVIDENCES, e.g. economic, social cohesion, level of knowledge, participation level)
   - Peasant group meeting (how many, attending, voice expression, decision making)
   - Opinion about peasant group and suggestion to improve peasant group

3. Peasant group (interview guide for head of peasant groups)
   - Years of establishment (initiated by whom, how)
   - Aims to establish peasant group
   - Internal organisation (how to form/elect the board, manage budget, formation of board, relationship among board, board meeting etc.)
   - Activities/mechanism of peasant group (e.g. meeting, decision making, planning, exercising, evaluation etc.)
• Relationship with members, NGO and other organisations
• Responsibilities and rights of board and members

4. Reasons not to be involved in or to quit from peasant group (interview guide for non-member of peasant group)
• Why not to be involved in or quit from peasant group
• Differences to be a member and non-member of peasant group
• Plan in future (re-join or not)
• Suggestion for peasant group

5. Opinion about role of NGO and other organisations in community forestry program
• Support received from NGO and other organisations during your involvement in peasant group
• Opinion about the NGO’s program
• Participation level in the NGO’s program (e.g. received information about the program, involved in problem diagnosing, program designing, or in program implementation)
• Has the NGO’s program made a differences for you (e.g. economic, social, ecological, level of knowledge, participation level)
• Suggestions for NGOs

Interview guide for staffs of NGOs
1. Internal organisation
• Years of establishment, who establish it, and aims/ goals
• Organisational schemes
• Mechanism of the staffs (e.g. responsibilities and relationship among staffs)

2. Relationship with donors
• Who are the donors of NGO
• Relationship with donors (e.g. responsibilities, rights etc.)
• Accountability (e.g. reporting)
3. Relationship with other organisations involved in community forestry program in the program area, if any
   • Partnership process/ mechanism between NGO and manufacturers
   • Responsibilities and rights of NGO and manufacturers
   • Relationship with forestry service in program areas (e.g. information giving, collaboration etc.)

4. Program/ activities and challenges
   • How and challenges of NGO in exercising their role in community forestry program (e.g. social-economic assessment, program development, implementation, monitoring and evaluation)
   • Challenges regarding its relationship with (e.g. donors, peasant groups, manufactures, forestry service, global economic condition, national policy)
   • How NGO evaluate its achievements (e.g. criteria of success and failure)
   • Suggestion to improve its effectiveness

Interview guide for staffs of Forestry Service
   • Opinion about its community forestry program
   • Opinion about its community forestry program compare to NGO’s community forestry program
   • Its relationship with peasant groups and NGO

Interview guide for furniture manufacturers
   • Source of timbers used for furniture
   • How to be involved in NGOs’ community forestry program
   • Reasons and benefits to be NGOs’ partner/ reasons and benefits to use eco-label in their products
   • Expectation regarding timber supply from peasants’ SFEs (e.g. quantity, quality and intensity)
Interview guide for observers of NGOs

- Opinion about how the NGOs exercise their community forestry program and their challenges and opportunities
- How their roles should be optimised

Observation guide for behaviour of peasants

- Lifestyle incl. house (e.g. material and quality of buildings) and other property conditions, family conditions, and activities.
- Species of plants they have planted, condition of land and forest condition.
- Their behaviour in group meeting (e.g. who attend, who speak out more or less, how decision is made)
Appendix A3: Bageng Village

**Figure A3.1:** Fertile soil of Bageng Village

**Figure A3.2:** Landscape of Bageng Village that is potential to be eroded

**Figure A3.3:** Trees are planted along the border of cassava field
Figure A3.4: Trees (*albizia*) are planted between coffee as shading

Figure A3.5: Peasant group meeting that was attended mostly by men

Figure A3.6: Interview with peasants at Bageng Village
Appendix A4: Selopuro Village

**Figure A4.1:** Teak trees grow on the top of dry and rocky soil

**Figure A4.2:** Teak forest

**Figure A4.3:** Teak, cassava and herbs in one plot
Figure A4.4: Natural water source at Selopuro Village

Figure A4.5: Furniture and handicraft home industry that is stop operating
Figure A4.6: Peasant group meeting that was attended mostly by men

Figure A4.7: Interview with peasant at Selopuro Village
Appendix A5: Trees-4-Trees

Figure A5.1: Organisation Scheme of Trees-4-Trees

Source: http://www.trees4trees.org/about-us/who-we-are/

Figure A5.2: Operational Activities of Trees-4-Trees

Sources: http://www.trees4trees.org/about-us/what-we-do/
Figure A5.3: Achievements of Trees-4-Trees in tree plantation from 2008 to 2011

Table A5.1: Achievements of Trees-4-Trees in tree plantation from 2008 to 2011

<table>
<thead>
<tr>
<th>Year</th>
<th>Trees</th>
<th>Area (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>180,464</td>
<td>8,325,591</td>
</tr>
<tr>
<td>2009</td>
<td>388,689</td>
<td>4,323,779</td>
</tr>
<tr>
<td>2010</td>
<td>25,551</td>
<td>194,956</td>
</tr>
<tr>
<td>2011</td>
<td>82,544</td>
<td>691,354</td>
</tr>
</tbody>
</table>

Sources: http://www.trees4trees.org/about-us/what-we-do/
Figure A5.4: Operation system of Trees-4-Trees


Figure A5.5: Trees-4-Trees’ green hang tag/ eco-label

Table A5.2: List of contribution tariffs for participants of Trees-4-Trees

<table>
<thead>
<tr>
<th>Category</th>
<th>Container size</th>
<th>20'</th>
<th>40'</th>
<th>40' HC</th>
<th>45' HC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Built-up furniture</td>
<td>(USD/container)</td>
<td>150</td>
<td>300</td>
<td>360</td>
<td>390</td>
</tr>
<tr>
<td>Knock-down furniture</td>
<td></td>
<td>190</td>
<td>375</td>
<td>450</td>
<td>490</td>
</tr>
<tr>
<td>Flooring</td>
<td></td>
<td>600</td>
<td>n.a</td>
<td>n.a</td>
<td>n.a</td>
</tr>
<tr>
<td>Mixed containers or</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>combined materials</td>
<td>(calculated</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>case by case)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(minimum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>contribution</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>USD 50)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NB: If mixed containers a packing list is required for & verification

Mixed Containers & Combined Materials

Example 1: Mixed rattan and wood: Synthetic rattan chairs have wood legs and arm rests. Wood is 0.00835 m³ per chair. There are 200 chairs in a 40' container. The total wood in finished products make up 0.7 m³. This is 7% of a standard 40' container, i.e. the contribution is 1% of USD 300 = USD 21. The minimum fee is USD 50, so in this case USD 50 is the contribution to apply.

Example 2: Mixed 40' container with wood furniture and handicraft from other materials. Estimated the percentage of wooden items per container, 60%
- Wooden items 60% (of USD 300) = USD 180
- Other items 40% (of USD 0) = USD 0

Contribution USD 180

Example 3: Combined Built-up and Knock-Down furniture. The 40' standard container combines 80% built-up furniture & 20% knock-down furniture.
- Built-up furniture is 80% of USD 300 = USD 240
- Knock-down furniture is 20% of USD 375 = USD 75

Contribution USD 315

Example 4: Combined wood-based materials.
- A 40' standard consists of furniture that is made from 50% MDF and 50% solid wood. MDF is set at 50% of solid wood consumption. The calculation will then be:
  - Solid wood 50% of USD 300 = USD 150
  - MDF 50% of (50% of 300) = USD 75

Contribution USD 225

Sources: http://www.trees4trees.org/about-us/what-we-do/
Appendix A6: PERSEPSI and LEI forest certification

Table A6.1: Management units in farm forestry areas that are certified under LEI and FSC scheme and promoted by PERSEPSI in Indonesia (by January, 2008)

<table>
<thead>
<tr>
<th>No</th>
<th>Management unit</th>
<th>Size of certified areas</th>
<th>Tree species</th>
<th>Certification scheme &amp; certification bodies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Farm forestry at Selopuro Village and Farm forestry at Sumberejo Village (Wonogiri District, Central Java)</td>
<td>809.95 hectares covering the two villages (one certificate for each village)</td>
<td><em>Tectona grandis</em>, <em>swietenia mahogany</em>, <em>acacia auriculiformis</em> and <em>samanea saman</em></td>
<td>LEI-PHBM scheme Certified by PT. Mutu Agung Lestari Valid until October 2019 Promotor: PERSEPSI</td>
</tr>
<tr>
<td>2</td>
<td>Wana Manunggal Lestari Cooperative (Gunung Kidul District, Yogyakarta)</td>
<td>815.18 hectares covering three villages (one certificate for the three villages)</td>
<td><em>Tectona grandis</em>, <em>swietenia mahogany</em>, and <em>acacia auriculiformis</em></td>
<td>LEI-PHBM scheme Certified by PT. TUV International Indonesia, Valid until September, 2021 Promotor: ARuPA, SHOREA, PKHR</td>
</tr>
<tr>
<td>3</td>
<td>Hutan Jaya Lestari Cooperative (Konawe Selatan District, Sulawesi Tenggara)</td>
<td>159 hectares covering twelve villages (one certificate for the twelve villages)</td>
<td><em>Tectona grandis</em></td>
<td>FSC-SLIMF scheme Certified by SmartWood Valid until May 2010 Promotor: TFT and JAUH</td>
</tr>
<tr>
<td>4</td>
<td>GOPHR Wono Lestari Makmur (Weru Sub-district, Central Java)</td>
<td>1179 hectares covering 4 villages (one certificate for the four villages)</td>
<td><em>Tectona grandis</em>, <em>swietenia mahogany</em>, <em>acacia mangium</em>, and <em>Albazia Falcataria</em></td>
<td>LEI-PHBM scheme Certified by PT. Mutu Agung Lestari’ Valid until March 2022 Promotor: PERSEPSI</td>
</tr>
<tr>
<td>5</td>
<td>PPHR Catur Giri Manunggal (Giriwoyo Sub-district, Central Java)</td>
<td>2434 hectares covering four villages (one certificate for the four villages)</td>
<td><em>Tectona grandis</em> and <em>acacia</em></td>
<td>LEI-PHBM scheme Certified by PT. Mutu Agung Lestari’ Valid until April 2022 Promotor: PERSEPSI</td>
</tr>
</tbody>
</table>

Table A6.2: Areas currently under preparation for CF certification in Indonesia

<table>
<thead>
<tr>
<th>No</th>
<th>Location</th>
<th>Promoter</th>
<th>Forest Type and Species</th>
<th>Proposed Scheme</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gombong (Central Java)</td>
<td>TFT Poetry Barn</td>
<td>Mahogany Plantation</td>
<td>FSC SLIMF</td>
<td>Community institution established</td>
</tr>
<tr>
<td>2</td>
<td>Probolinggo (East Java)</td>
<td>PT. Kutai Timber Indonesia and Aksenta (consultant)</td>
<td>Albazia Plantation</td>
<td>FSC SLIMF</td>
<td>Community institution established</td>
</tr>
<tr>
<td>3</td>
<td>Merauke (West Papua)</td>
<td>WWF Indonesia</td>
<td>Mixed Natural Forest</td>
<td>LEI CBFM</td>
<td>Starting point: HCVF assessment</td>
</tr>
<tr>
<td>4</td>
<td>Sarmi, Jayapura (Papua)</td>
<td>Greenpeace</td>
<td>Mixed Natural Forest</td>
<td>N.a</td>
<td>N.a</td>
</tr>
<tr>
<td>5</td>
<td>Sorong (West Papua)</td>
<td>Telapak</td>
<td>Mixed Natural Forest</td>
<td>FSC SLIMF</td>
<td>Community institution under preparation</td>
</tr>
<tr>
<td>6</td>
<td>Aceh</td>
<td>Government FFI Telapak</td>
<td>Mixed Natural Forest</td>
<td>N.a</td>
<td>Community institution established</td>
</tr>
<tr>
<td>7</td>
<td>Sragen (Central Java)</td>
<td>PERSEPSI Local Government Wood based Industries</td>
<td>Teak Plantation</td>
<td>FSC SLIMF</td>
<td>Target: Successful certification in 2008 (9 months for preparation foreseen)</td>
</tr>
<tr>
<td>8</td>
<td>Eastern Java</td>
<td>Local Government PERSEPSI</td>
<td>Teak Plantation</td>
<td>FSC SLIMF</td>
<td>In preparation at several locations</td>
</tr>
<tr>
<td>9</td>
<td>Gunung Kidul (Central Java)</td>
<td>Local Government (POKJA HR) PKHR (UGM), Shorea, ARUPA</td>
<td>Teak Plantation</td>
<td>LEI CBFM</td>
<td>Extension of existing certificate and ongoing program to all villages of Gunung Kidul (lead with local government)</td>
</tr>
<tr>
<td>10</td>
<td>Gunung Kidul (Central Java)</td>
<td>TFT PT. Dipantara</td>
<td>Teak Plantation</td>
<td>FSC SLIMF</td>
<td>MoU signed with PT. Dipantara, field location not yet chosen</td>
</tr>
<tr>
<td>11</td>
<td>Konawe Selatan (Southeast Sulawesi)</td>
<td>Koperasi KHJL TFT JAUH</td>
<td>Teak Plantation</td>
<td>FSC SLIMF</td>
<td>Extension of existing certificate and ongoing TFT support</td>
</tr>
<tr>
<td>12</td>
<td>Sungai Utik, Kapuas Hulu, West Kalimanta,</td>
<td>AMAN(an National Indigenous people Alliance in Indonesia), PPSDAK, PPSHK</td>
<td>Natural forest</td>
<td>LEI CBFM</td>
<td>Certified in March 2008</td>
</tr>
</tbody>
</table>

Source: Hinrichs et al. (2008).
**Table A6.3:** Areas that can be certified under LEI’s community-based forest management scheme (areas no 9 to 12 and 17 to 20)

<table>
<thead>
<tr>
<th>Management orientation</th>
<th>Determination of land/ forest area</th>
<th>Tenure status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Public/ State</td>
<td>Customary lands</td>
</tr>
<tr>
<td></td>
<td>Forests/ Lands</td>
<td>Communal</td>
</tr>
<tr>
<td>Protected area</td>
<td>Commercial</td>
<td>01</td>
</tr>
<tr>
<td></td>
<td>Subsistence</td>
<td>05</td>
</tr>
<tr>
<td>Forest cultivation areas</td>
<td>Commercial</td>
<td>09</td>
</tr>
<tr>
<td></td>
<td>Subsistence</td>
<td>13</td>
</tr>
<tr>
<td>Non-forest cultivation areas</td>
<td>Commercial</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Subsistence</td>
<td>21</td>
</tr>
</tbody>
</table>

*Source: LEI (2004).*

**Figure A6.1:** Institutional structure of certification in Indonesia

*Source: LEI (2004).*
**Figure A6.2:** Forest certification procedures of community-based forest management scheme

![Diagram of forest certification procedures]

*Source: LEI (2004).*

**Figure A6.3:** Assessment criteria of forest certification

![Diagram of assessment criteria]

*Source: LEI (2004).*