Extension Approaches to Promote Effective Adoption of Agroforestry Practices : Lessons Learned from Indonesia

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ABSTRACT

There are commonly two main reasons why agroforestry is a popular topic discussed in the context of rural development. Firstly, agroforestry is often seen to offer a balance between conservation and production in farming systems to provide socio-economic and ecological benefits, rather than either conservation or production systems in isolation. Secondly, agroforestry encourages smallholders to diversify enterprises and create resilient farming systems. Yet there is a gap between "the ideal" adoption of agroforestry and "the fact" that it is seen by many as difficult to optimise and not widely adopted. Government policies relating to building food security in developing countries,such as in Indonesia (where farmers are encouraged to grow rice and corn), still tend to lead to encroachment into forest areas and specialised farming systems geared towards maximising yields of commodity crops. This focus on agricultural production alone has led to severe land degradation including the erosion of farm soils and the siltation of rivers, the drying up of springs, and loss of lives, housing and other infrastructure due to severe flooding. Two research and development projects have been exploring an innovative approach to enhance extension efforts so that agroforestry is more widely understood and adopted by smallholders in Indonesia. This presentation (and associated papers) will discuss the design of the alternative extension approach used by the two projects, discuss the evaluation data collected about the learning impact of the extension approach and the implications for the adoption of agroforestry in Indonesia. The presentation will conclude with the key elements that have been identified about the innovative approach to agroforestry extension among smallholders, which include: close involvement of the local community; capacity building of smallholders' local institutions; framing the advantages within the local market context; and forging strong partnerships between smallholders, industry and government.

Key Words: Rural extension, agroforestry, adoption, sustainable farming, rural development

BACKGROUND

1. Issues identified in Indonesia: (i) poverty incidences is hight, (ii) undemplyment level at rural areas remains – that lead to international migration, and (iii) low productivity of farming systems – food crops and dryland management system.
2. Agroforestry has been a popular topic discussed in the context of rural development due to: Firstly, agroforestry is often seen to offer a balance between conservation and production in farming systems to provide socio-economic and ecological benefits, rather than either conservation or production systems in isolation. Secondly, agroforestry encourages smallholders to diversify enterprises and create resilient farming systems.
3. However, there is a gap between "the ideal" adoption of agroforestry and "the fact" that it is seen by many as difficult to optimise and not widely adopted. Government policies relating to building food security in developing countries, such as in Indonesia, still tend to lead to forest encroachment and specialised farming systems geared towards maximising yields of food crops.
4. The absence of an effective extension system has been identified as another issues to effectively support for better social, economic and environmental conditions of rural communities.

OBJECTIVES

1. To understand the existing issues of timber and non-timber management practices.
2. To design, develop, implement, and establish alternative smallholders' learning options that lead to the identification of a more affectice extension approach to forestry and agroforestry extension.
3. To promote policy changes in agricultural extension system, and especially in the area of forestry and agroforestry extension.

METHODS

Action-research methods have been used in the two research projects in Indonesia. A multidiciplinary team involved in the research activities to understand the issues of forestry and agroforestry management practices, and action-plans were developed to address these issues. A serries of MTG training courses as a pilot trial to promote more effective farmers' learning was conducted during 2014 to 2018, and its effectiveness has been studied. Value chain and public-private partnership analysis was also conducted for both timber and NTFPs to understand the constraints and identify options for improvement. Quantitative and qualitative research methods where applied in the research activities. Action-plans were developed and implemented to promote farmers' learning and changes in their farm management practices.
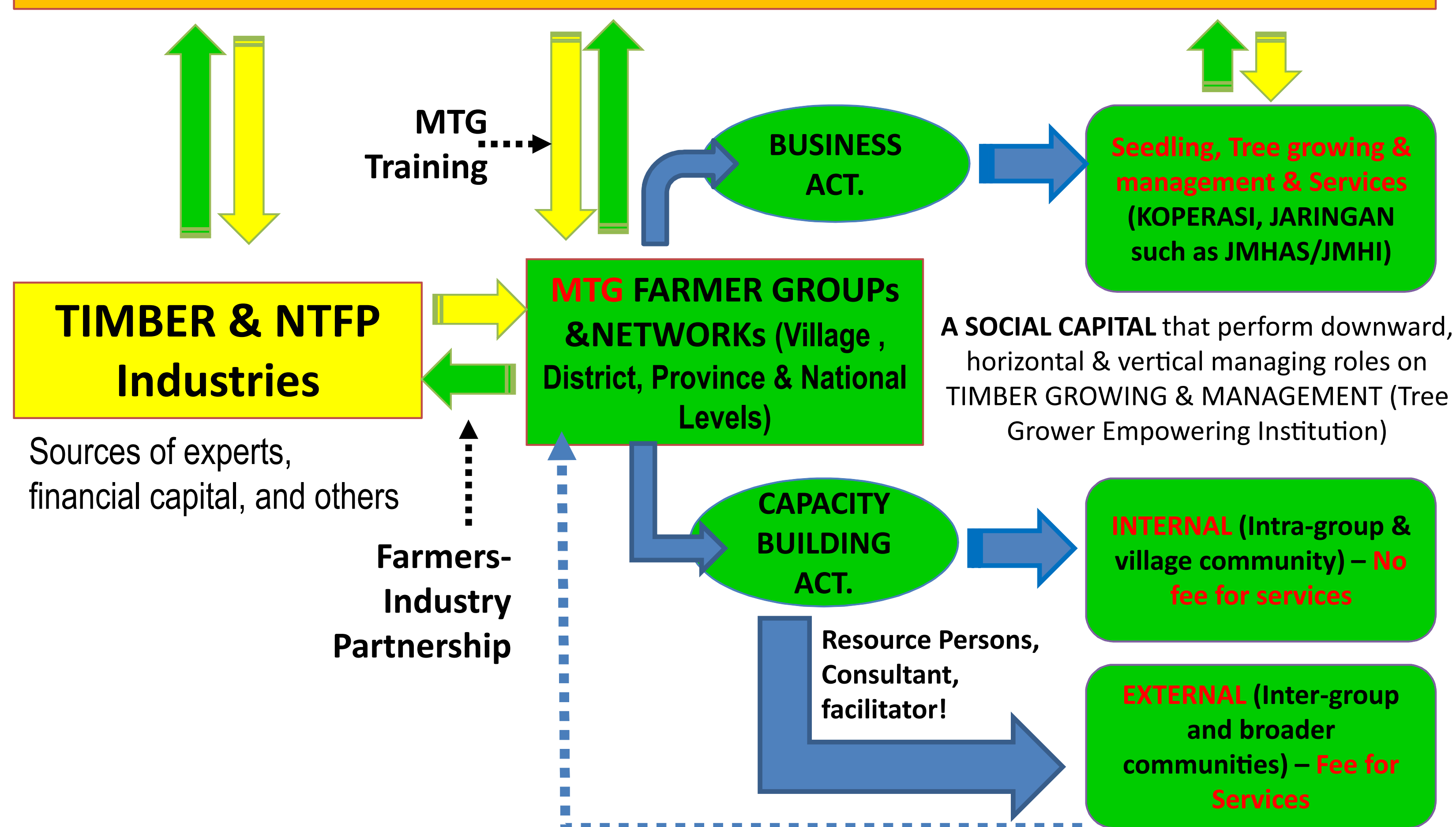
RESULTS

CONCLUSIONS

1. The existing timber and non-timber management practices have not been done to meet the customers' expectations on the species and qualities. Smallholders' production systems are mostly for a subsistence needs.
2. Limited extension supports were found in the study areas, and especially in the field of **forestry** and **agroforestry** extension.
3. There is a need to promote policy changes in agricultural extension system, and especially in the area of forestry and agroforestry extension.
4. The **MTG** and **Public Private Parnership** approaches to forestry and agroforestry extension could be a sound option to the Indonesian extension system as its market-first approach, partnership mode of value chain actor relations (smallholders, traders, and industries).

Diagram: GOVERNMENT AGENCIES, UNIVERSITIES & OTHERS — MTG Training — BUSINESS ACT. → Seedling, Tree growing & management & Services (KOPERASI, JARINGAN such as JMHAS/JMHI); TIMBER & NTFP Industries (Sources of experts, financial capital, and others) → MTG FARMER GROUPs &NETWORKs (Village , District, Province & National Levels) — A SOCIAL CAPITAL that perform downward, horizontal & vertical managing roles on TIMBER GROWING & MANAGEMENT (Tree Grower Empowering Institution); Farmers-Industry Partnership; CAPACITY BUILDING ACT. → INTERNAL (Intra-group & village community) — No fee for services; Resource Persons, Consultant, facilitator! → EXTERNAL (Inter-group and broader communities) — Fee for Services

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