

Resilience, Rights and Resources: Two years of recovery In coastal zone Aceh



Participatory tree crop development

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Background

The main source of livelihood of the rural people in West Aceh are fisheries, rice and tree crops. *Hevea* rubber, palm oil, cocoa, coffee, coconut palm areca nuts are the main tree crops that are important cash earners for most household in the tsunami affected west coastal area of Aceh. In general the physical damage by Tsunami of 26th December 2004 was not too serious on tree crops. Some fruit trees were killed by saline water inundation. Standing coconut as well as other palms remains productive (and even more productive than before the Tsunami). Cocoa trees appear to be recovering well. Rubber lost leaves but is generally re-sprouting and is expected to be tapped soon.

Even though destruction by Tsunami affected little physical/ biophysical damage on trees themselves, the earthquake and tsunami damage on roads, bridges, harbor, storage, processing facilities and markets (many traders died) was devastating. The human capacity and farmer institutions remain severely weak. The post-Tsunami rehabilitation activities have paid little attention to the development and rehabilitation of human capacity and farmers' organization as human and social capital to ensure the sustainability of rural livelihood based on tree crops sector development. The road to Medan from West Aceh was damaged but to a lesser extent and was brought to operation relatively quickly. The road to Banda Aceh, the provincial capital, was virtually washed away and has yet to be rebuilt.

Following the earthquake and tsunami, both the supply (farmers) and demand (traders) sides remained constrained. Many farmers during post-Tsunami rehabilitation were occupied with 'cash for work' programs and other construction activities. New opportunities arose for labor and trade. Many paddy farmers stopped farming, rubber farmers stopped tapping. The off-farm activities 'drained' the already reduced manpower in the region. Many farmer organizations that had been established earlier stopped to function as with new economic opportunities arising, farming became a less priority for many of their members.

Building farmer groups and capacity

As a contribution to the process of recovery of different capitals, the Indonesian Rubber Research Institute, in collaboration with LRPI and ICRAF, has initiated a training and capacity building program to enhance farmer skills and knowledge for better tree crops cultivation and management in West Aceh. These research institutions Rather than working at individual level, the plan is to work with small farmer groups that will learn and put new knowledge into practice and support each other as a group. Any negotiation with external institutions, including government and other NGOs may also be efficiently managed through groups. Group mobilization and technical trainings can be followed by establishing demonstration plots in farmers' fields to better convince themselves and their neighbours on how to better manage and benefit from their tree crops. This is essential as farmers are generally reluctant to adopt new technology before they are convinced about the gains from this technology.

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One of the key aspects of the work is strengthen farmer organizations. Farmer groups in West Aceh are still weak in terms of activities and management; hence the current focus on establishment of well-organised farmer groups that are oriented to productive tree crops program. Earlier experience from other parts of Indonesia shows that without productive activities, success in maintaining farmers in groups is unlikely. In the current program, therefore, farmer group establishment and strengthening is proceeding in parallel with training and setting up of tree nurseries.

Experiences of other professionals in Indonesia indicate that farmers are quite capable of finding solutions to their farm problems. It is also possible to invite farmers to actively participate in development programs where farmers are involved in defining their problems and finding ways to solve these problems. Building good rapport with farmers and sympathetically encouraging and empowering them to take part in the whole process of development planning and implementation are essential part of a successful participatory development program. Farmers then become more open, active and confident and respect each other.

Progress of activities

Considering the above points three activities have/will be implemented to build capacity in West Aceh and Nias, namely:

- Farmer organizations and capacity enhancement
- Production of quality planting material of major tree crops through group and private nurseries
- Focused farmer trainings on tapping, grafting, nursery management, silviculture and group dynamics, post-harvest processing

1. Farmer organizations and capacity enhancement

- Focused in 4 sub-districts in West Aceh (Arongan Lambalek, Meureubo, Samatiga and Johan Pahlawan) and 3 Sub-districts in Nias (Gunung Sitoli Utara, Tuhemberua, Alasa)
- Development and/or empowerment of farmer groups

Outputs: 10 Farmer groups (118 farmers) in West Aceh and 3 farmer groups (30 farmers) in Nias have been developed; technical knowledge and skills about major tree crops (rubber, cocoa, fruit trees) have been provided to participant farmers through training and field visits.

2. Production of quality planting material of major tree crops: field implementation of this activity will start in November 2006. Supporting materials for the bud wood garden establishment have been distributed to farmers in West Aceh. Likewise, necessary material will be distributed in Nias in November-December 2006. The planting materials have been prepared in Sungai Putih Rubber Research Institute (rubber and fruit trees) and Indonesian Coffee and Cocoa Research Institute, Jember, (cocoa seed). The program is focused in established farmer groups described above both in West Aceh and Nias.

Expected output: Improved planting material of major tree crops available locally and source of good material for further nursery development in West Aceh and Nias.

3. Focused farmer trainings on tapping, grafting, nursery management, silviculture and group dynamics, post-harvest processing.

Trainings have been organized both in West Aceh and Nias on the following topics:

- Farmer Group Dynamics
- Agronomic Practice of Rubber, Cocoa and Fruit trees
- Harvest and post-harvest technologies

Activities in Nias:

- Date : 8-12 August 2006
- Participants : 47 persons (4 farmer groups, Extension workers, local facilitators, and YPKM a local NGO works closely with the ReGrIn team)
- Follow up : Nursery (Rubber, Cocoa) Cacao nursery has been established, assisted by Indonesian Coffee and Cocoa Research Institute, Jember, while rubber planting material for budwood garden will be sent in December 2006
- Trainers : LRPI and YPKM (local NGO)
- Local officials : Extension Workers of Disbun Nias

Activities in West Aceh:

- Date : 6-17 September 2006
- Participants : 120 persons (10 farmer groups, Extension workers, facilitators from NGOs: Tear Fund, Mercy Corps)
- Follow up : Nursery (Rubber, Cocoa and Fruit trees) establishment between October 06 and January 2007
- Trainers : LRPI (IRRI and ICCRI), Local facilitators
- Officials : Head of Agency for Plantation Development, Head of Agency for Agriculture Development
- Collaboration : TearFund, Mercy Corps

4. Follow up and commitments

In the coming months, group-managed tree nurseries will be set up with initial stock of good genetic materials from national research institutes for rubber and cocoa. Technical assistance will come from LRPI to the farmer groups. Commitments from local officials including BRR (in Nias) and NGOs for different levels of input have been assured.

KEY MESSAGE

- There is a huge opportunity for tree crops, particularly rubber and cocoa, development for smallholder farmers in the post-tsunami Aceh. Local people are in need of good quality planting material and technical knowledge about improved tree crop cultivation.
- Local institutions (government and NGOs) have limited technical knowledge about major tree crops; they need to enhance their capacity and expertise to support farmers' need and demand.
- Participatory Tree Crops Development, that has proven very successful elsewhere in Indonesia, is likely to be a good strategy. Farmer institutions, government and other NGOs can work together with support from research organizations can collaborate in order to develop the tree crops sector for better livelihoods and local economy.

World Agroforestry Centre (ICRAF) is one of 15 organizations under the CGIAR (Consultative Group on International Agricultural Research) umbrella. ICRAF aims to stimulate and conduct innovative research, development and capacity building to promote and support agroforestry for both human and environmental benefits. ICRAF has its headquarters in Kenya and six regional offices in the tropics and now cover 21 countries in Africa, Asia and Latin America.

The research bulletins are summary results of collaborative activities of ICRAF and partners in the "Recovery and Resilience of Livelihood and Natural Resources", mainly in West Aceh, after the Tsunami of 26th December 2004. These bulletins were prepared, first in Indonesian language, for a workshop in Meulaboh on 30 November 2006. The primary objective was to share relevant result findings and observations among government and non-government organisations and individuals involved in the post-tsunami recovery in West Aceh. The workshop and preceding research activities were supported by Ford Foundation Indonesia, EU Asia Pro-Eco Program and CGIAR.

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