

Tree crops help rebuild livelihoods after the Tsunami in West Aceh



Introduction

The earthquake and Tsunami of 26th December 2004 destroyed lives of many people, injured many more and devastated all five capitals - natural, infrastructure, human, financial and social. The coastal area of West Aceh district was a regional hub for trade and development before the Tsunami. In villages many people depended on fisheries, rice and tree crops, mainly rubber, coconut, cocoa, Nypa and fruit trees. Tree crops formed an important economic base for local livelihoods.

Tree crops are the economic basis for local livelihood in West Aceh







Rubber on peat domes



Coconut in coastal area

Oil palm in mineral soil Areca palm in ho garden



Fruit trees in home garden

Table 1. Local activities contributing to local economy in the 4 coastal subdistricts in West Aceh.

| Sub-district | Fishery | Paddy | Tree crops | Annual crops | Home garden | Labor | Trading |
|---------------------|---------|-------|---------------|-----------------|----------------|-------|---------|
| Arongan Lambalek | 5 | 30 | 45 | 5 | 3 | 10 | 2 |
| Samatiga | 7 | 35 | 40 | 8 | 2 | 3 | 5 |
| Johan Pahlawan | 8 | 12 | 15 | 5 | 2 | 40 | 18 |
| Meureubo | 10 | 30 | 40 | 5 | 2 | 8 | 5 |

Table 2. Tree crops in agriculture sector in West Aceh

| | Of plantati | on | Of agriculture | | |
|-----------------------------|-------------|-------------------|----------------|-------------------|--|
| Tree crop | Area (%) | Production (%) | Area (%) | Production (%) | |
| Rubber (Hevea brasiliensis) | 62.5 | 68.6 | 19.7 | 13.09 | |
| Cacao (Theobroma cacao) | 1.2 | 0.1 | 0.4 | 0.03 | |
| Coconut (Cocos nucifera) | 11.9 | 4.0 | 3.8 | 0.77 | |
| Oil Palm | 14.8 | 25.6 | 4.7 | 4.89 | |

Table 3. Change in Livelihood activities [pre-post Tsunami]

| Sub-district | Fisher y | Paddy | Tree Crops | Annual crops | Home garden | Labor | Trading |
|---------------------|-------------|-------|---------------|-----------------|----------------|-------|---------|
| Arongan Lambalek | 5 | -28 | -35 | -2 | 2 | 35 | 23 |
| Johan Pahlawan | 6 | -11 | -10 | -2 | 0 | 20 | -3 |
| Samatiga | 3 | -33 | 5 | -5 | 3 | 17 | 10 |
| Meureubo | -5 | -28 | 3 | 5 | 3 | 17 | 5 |
| Average | 2.3 | -25 | -9.3 | - 1 | 2 | 22.3 | 8.8 |



The Tsunami hit hard

- · Thousands of human lives lost
- Many houses were washed away
- · Fishermen lost their boats
- · Paddy fields submerged under sea water
- Many trees destroyed by tsunami waves and later by high soil salinity
- All livelihood activities (fishery, agricultural crops, tree crops, trading and off-farm jobs)
- Trading systems of tree crops were seriously affected (collection, transport, processing facilities)
- Significant change in economic activities and opportunities
- The current 'construction boom' is engaging many people; opportunities for trading and other off-farm jobs are high.

Summary

- Tree crops in local livelihood important both before and after Tsunami
- Tree crops in the coastal zone can function both as economic shield and bio-shield
- · Tsunami was an opportunity for improvement and change
- Huge potential for improving tree crops sector technical knowledge, input material
- · Coconut is abundant and in over-supply
- Oil palm limited to large scale plantations and more resourceful farmers close to palm
 oil factories
- Cocoa is favored for mixing with coconut and in home gardens
- Rubber is the most wanted tree crop in West Aceh (90% farmers' preference)
- No local production of good quality planting material (rubber clones)
- · No knowledge about good practices of harvesting, post-harvest technology, marketing
- Economically important local species like *Nypa fruticans* are currently ignored by development agencies in tree planting programs
- 'Trees people want' can provide both economic and environment protection functions
- Three pillars for livelihood recovery in Aceh improved skills and knowledge, strengthened capacity of local people and development agencies and dialogue between major stakeholders.



Local memories of the Tsunami of 26th December 2004

