



Agroforestry: Perspectives and Performance in Indonesia

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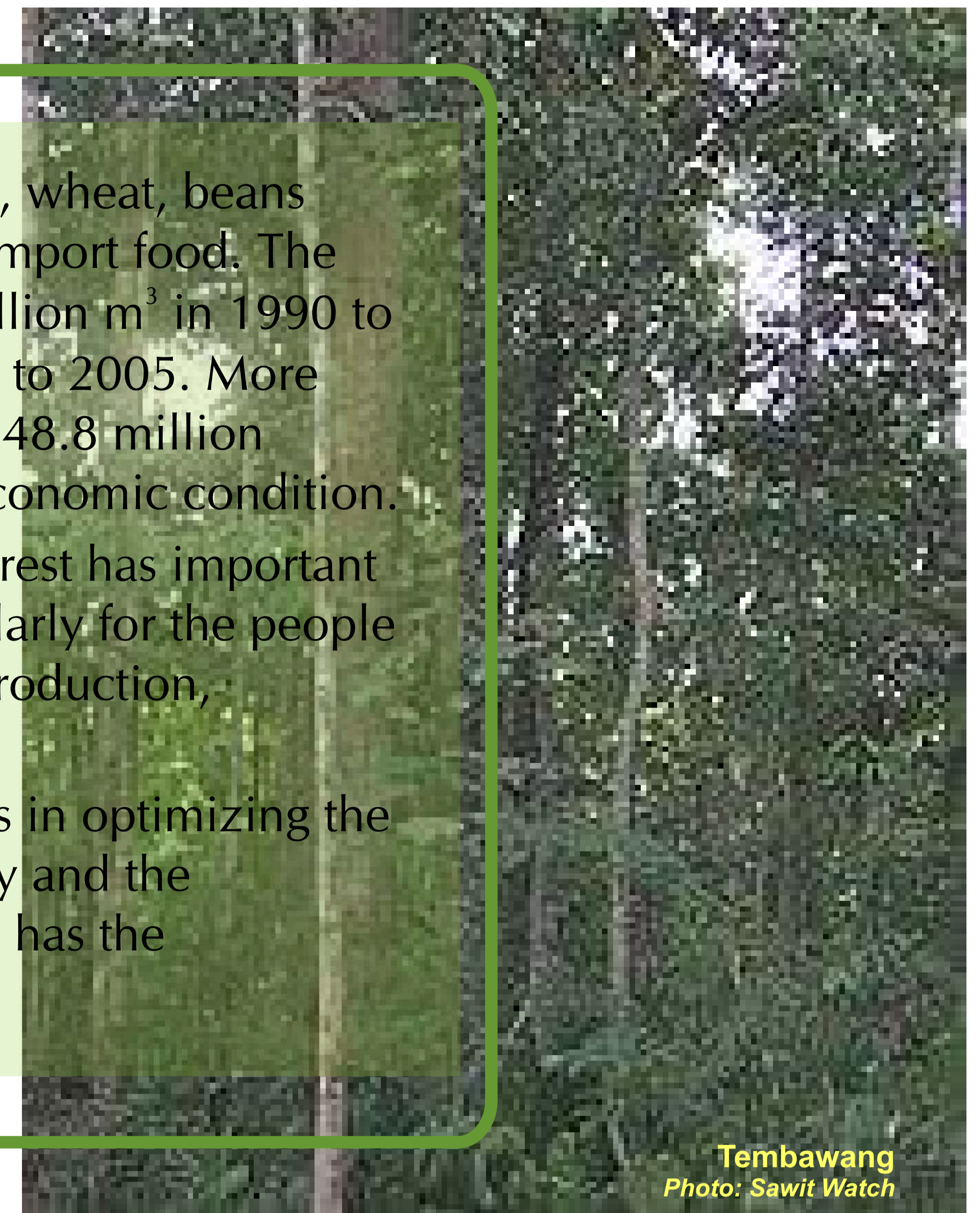


Background


As an agrarian country, it is ironical that Indonesia has been importing food (rice, corn, wheat, beans etc.) for its people. From 1996 to 2005, the government spent 14.7 trillion annually to import food. The need for water to irrigate agricultural land had also increased 10% per year from 74.9 billion m³ in 1990 to 91.5 billion m³ in 2000. The agricultural land had decreased 0,17 % per year from 2000 to 2005. More land is needed to fulfill the needs of around 220 million Indonesia people, whom about 48.8 million people (12%) live in and around state forest area, and 10.2 million people are in poor economic condition.

With the total area of 120 million hectares (62% of the total country land), this state forest has important functions and roles as a life supporting system and a sources of food and energy, particularly for the people living in around the forest area. Currently the state forest is managed mostly for timber production, protection and conservation. There is a need to re-define the function of the state forest.

Agroforestry has been practiced for decades by many Indonesians. It is one of the ways in optimizing the use of land for various purposes. What are the concern and knowledge of the community and the government in managing and in involving agroforestry in the state forest? To what extent has the agroforestry been practiced in the state's forests? What are the challenges?



Tembawang
Photo: Sawit Watch

	AGROFORESTRY	PLANT DIVERSITY
	Tembawang, West Kalimantan	100 planted edible and NTFP (durio, coconut, rattan, ilipe nut, rambutan, and countless other type of fruit. http://www.new-ag.info/07/03/focuson/focuson4.php . Download 3 August 2009)
	Talun, West Java	<i>Albizia sp</i> 40%, <i>Sandoricum sp</i> 20%, teak 5%, acassia 15%, swietenia 5%, other species 15% (Alviya Iis and Niken Sakuntaladewi, 2007. Info Sosial Ekonomi Vol 7 No. 1. Bogor)
	Repong Damar, Lampung	65% dammar tree, 20-25% fruit tree, 10-15% bushes (G. Michon and Hubert de Foresta, 1992. SEAMEO-BIOTROP, Bogor)
	Jungle Rubber, Jambi	116 tree species/ha. Trees above 5cm dbh = 898 individuals, including 300 rubber trees (Joshi, Laxman; et. al. 2002)
	Lembo, East Kalimantan	90% trees (<i>Mangifera sp</i> ; <i>Durio sp</i> ; <i>Shorea sp</i> , <i>Artocarpus sp</i>), 10% (palms, bamboos or lianas, coffea spp) – M.A. Sardjono. http://books.google.co.id/books (Download 3 August 2009)

	COMMUNITY	GOVERNMENT
CONCERN	Need land to farm	<ul style="list-style-type: none"> State forest is for production (timber), protection and conservation purposes. Forest for food has unclear rules and policy Forest -> agroforest means land use change -> can lead to deforestation, increased soil erosion, and less government control over forest land 'Agroforest is not yet government's priority'
KNOWLEDGE	<ul style="list-style-type: none"> Mix species will guarantee the short, medium and long term family needs Species planted & its diversity consider the soil type and quality, family needs, and market 	<ul style="list-style-type: none"> Trees are good to prevent soil erosion and sedimentation Trees generated good money to the country Agroforestry is a means to solve problems (related to the needs of local communities for food) in forestry sector
ACTION (AGROFORESTRY)	Tembawang; Talun, Lembo, jungle rubber, simpukng, repong damar	<ul style="list-style-type: none"> Hkm (Community Forest) in State Forest Production and Protection Adopted when there is socio-economic problems but trees should dominate (70% timber and 30% non timber)

Challenge: simultaneously promote conservation, economic development, energy and food security, Land tenure uncertainty, and legal basis

Hkm (Community Forest) in in State Forest Protection Sumberjaya

25 years permit to manage state forest in the form of Multi layer agroforestry. The permit is potentially renewed, fewer trees (400 trees/hectare)

Jungle rubber
Photo: Gede Wibawa

Repong Damar
Photo: Wikipedia

ENVIRONMENT:

Decrease Illegal logging
Decrease forest fire
Protection of remaining protect. forest
New significant changes in water quality

GOVERNMENT:

Better understand on how the protection forest should be managed
Better relationship with the local communities
Enlist (bring in) comm. support in forest managt.
Reduce corruption and bribes

COMMUNITY:

Increase tenure security
Greater economic stability
Greater TRUST to the government
Stronger community ties
Less bribes
Understand better the function of prot. forest
Stewardship of protection forest
HKM is being adopted by other farmers' groups