

Chapter V

Prospects for Forestry in Key Watersheds by the Year 2010 and Beyond

In all the countries covered by the six watersheds described in this study, there is an increasing awareness about the importance of forests for environmental stability and economic (local and national) development. As forestry, however, covers only a small part of the overall watershed areas (except for the Mekong Basin), it is unlikely that forests will play a key role on the large scale referred to in the present report. Within the framework of the present study, it has not been possible to make detailed predictions. However, a number of general remarks can be made.

Forestry towards the Year 2010; Assuming the Status Quo

The total population in five of the river basins is about 700 million (Table 15). If a population growth of two per cent is adopted, the population by the year 2010 will be 942 million. Present trends indicate no improvement in wood or fuelwood consumption patterns, and the degradation of forests at two per cent can be applied, resulting in a forest cover of 653,000 sq.km.; a drop in current forest cover of from 14.7 to 10.9 per cent.

Table 15: Population and Forest Cover in Each River Basin			
River Basin	Drainage Area ('000 sq.km.)	Population (million)	Forest Cover ('000 sq.km.)
Yangtze	1809	100.4	152.09
Yellow	794	81.7	23.43
Indus	945	n.a.	37.72
Ganges	1050	378.4	175.00
Brahmaputra	580	72.2	140.70
Mekong	795	62.0	349.96
Total	5,973	694.7	878.90
Source: USGS-IGBP, MRC 1997, Jizheng 1993, Bruijnzeel and Bremmer 1989, FSI 1996, FAO 1997b & 1997c, Wenhua et al. 1997 (background document), Shengji et al. 1995			

As the population densities and forest cover of watersheds vary, the forest depletion may be more serious in areas like the Ganges' watershed.

Forestry situations in the river basins have been summarised (Chapter 3). Deforestation in the Indus River Basin resulted in soil erosion and high sedimentation rates for water reservoirs in Pakistan. Government policy support for community forestry is weak. High population and extremely heavy sedimentation in the Ganges' River Basin in India also need rehabilitation measures. Agroforestry practices and fuelwood deficiency problems have been solved by using manure in the lowland Ganges' watershed in India. The Indian joint forest management system has been successful, but extension on a national scale is needed. Heavy loss of forest cover in the Northeast Indian states has resulted in a supreme court order banning timber production and removal. *Jhuming* is also a problem and ways to solve this problem are being tried in the Brahmaputra River Basin in India. Poverty among the rural poor of the Mekong River Basin, making the local community more dependent on existing resources, needs to be considered in developing major projects and agreements between the Mekong River riparian governments. Serious erosion problems in the Yangtze River Basin and good examples of rehabilitation were found. Programmes for planting trees and improving the deteriorating natural forests were started in the Yangtze River Basin and shelter belt tree planting was introduced. There is environmental degradation and heavy erosion in the Yellow River as well as very low vegetation cover. Poverty and deficient natural resources and pollution of water due to industry and mining are also evident. With these scenarios, it is likely that the forests in the key watersheds in Asia and the Pacific will be reduced by another five per cent by the year 2010 if proper measures are not taken.

Forestry towards the Year 2010; Assuming an Optimistic Scenario

With government funding and policy changes the forest cover of all the six key watersheds might be raised by another five or 10 per cent through community participation and appropriate agroforestry systems. Agricultural products will be increased in production and income generated through marketing of the extra yield benefits from the improved techniques and market opportunities. Economic conditions will be better for the community living in the watersheds.

Awareness of poor mountain communities about water and soil conservation and environmental conservation will be generated through extension. Proper management of forests through participatory community forestry will be very effective and successful.

Mangrove forests will be rehabilitated and ecology will be improved.

Forestry towards the Year 2010; Assuming Specific Deterioration in Policy and Action

In the somewhat unlikely event of a further deterioration in policies and actions related to the forestry section, there is a serious danger that the forest cover of the lower and middle hills of many of the watersheds will suffer from agricultural expansion and deforestation. This may have a significant impact on siltation levels of the upper reaches of the lower parts of watersheds in which agriculture plays a predominant role.