



Tropentag, October 7-9, 2008, Hohenheim

“Competition for Resources in a Changing World:  
New Drive for Rural Development”

## Evaluating Community Forest Management in Sustainability Perspective

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### Abstract

Even with the highest priority for Community Forestry (CF) in Nepal, the sustainable management of the forest has remained as unsolved issue in common property resource management. With the twin objectives of evaluating the sustainability and analysing the current CF management system to suggest a model of yield regulation for maximum economic and ecological benefit, the research work was carried out in two different types of community forests of Chitwan district in inner Terai region of Nepal. Forest inventory with systematic sampling design with post stratification and social surveys were carried out to provide biophysical and social information for the analysis.

While CF outside buffer zone has a big potential of forest product utilisation as of its high stocking ( $176.7 \text{ m}^3 \text{ ha}^{-1}$ ), the CF in riverine flood plain of Buffer zone has the potential of fulfilling the multifarious objectives ranging from forest products to habitat conservation for many wildlife species to promote ecotourism.

On the basis of biophysical conditions of forests and socio-economic needs of users, the objectives of maximum wood production and soil conservation for community forest outside buffer zone; and objectives of maximum biomass production and habitat management are proposed to reset for community forests outside and inside buffer zones respectively in order to achieve the goal of sustainability and maximum benefit.

Even-aged management system adopting Breyman method of yield regulation with different possible mode of regeneration is proposed as the best management option for Baghmara Community Forest in protected area buffer zone. Stem number guide curve method in Uneven-aged management system with selection cutting has been prescribed for yield regulation of CF outside buffer zone. With the application of prescribed yield regulation technique users in outside buffer zone CF can get the wood volume at the rate of 9 folds of present timber harvest and CF in buffer zone can sustain ecotourism industry in long run by maintaining viable wildlife population in their forest.

**Keywords:** Community forest, sustainability, yield regulation