

Forest, land and water policy instruments are being developed throughout the world to improve water regimes, environments and poor people's livelihoods. Sadly, the implementation of these policies in development programmes often is having the opposite effects.

Typically forest, land and water policies in developing nations aim at maximising pro-poor benefits but generally do not pay much attention to the impacts on water availability. The practical upshot is that changes in land use, which may be promoted as part of watershed development programmes or for carbon credits, may actually reduce the access to water of vulnerable groups. In arid areas, where water is already scarce, it is not unusual for good quality water to be used solely for productive uses (e.g. irrigation or forestry) even though the basic human needs requirements of vulnerable groups are not being met fully.

Large-scale afforestation is being promoted in China under the *Sloping Lands Conversion Programme* and in India, within watershed development projects. *Payments for Environmental Services* and *Clean Development Mechanisms* schemes are promoting forestry activities in many countries. By contrast, in South Africa, the *Working for Water Programme*, together with *Stream Flow Reduction Activity*, *Allocation Equity and Green Water* schemes aim to mitigate adverse impacts of land use change (often in connection with fast growing plantation trees). This is one of the myths that CIFOR is particularly concerned about. Although these programmes can and do bring significant benefits, poor planning along with the misguided belief that these interventions are entirely benign all too frequently result in a situation where the benefits of these projects are being captured by elite social groups at the expense of the



How do different land and water related policy instruments impact on the environment, water resources and people?

poor and/or environmental sustainability.

Reduced water availability tends to have its greatest impact on the most vulnerable sectors of society. If progress is to be made towards improving the access of the poor and vulnerable to safe domestic water supplies and towards meeting the other Millennium Development Goals, integrated approaches to water resource planning and management must be adopted. These approaches need to be based on stakeholder dialogue, sound management principles and good science.

### Watershed Development Programmes – benefiting the poor?

Watershed development programmes promoting soil water conservation measures, forestry and groundwater-based irrigation have been very successful in many semi-arid areas of India and China. Agricultural production has increased and livelihoods

#### Water-related myths

- Water harvesting is a totally benign technology
- Planting trees increases local rainfall and runoff
- Runoff in semi-arid areas is 30–40% of annual rainfall
- Rainfall has decreased in recent years
- Aquifers once depleted stay depleted
- Watershed development programmes drought-proof villages and protect village water supplies
- Introduction of drip and sprinkler irrigation frees up water for other uses

Impact of catchment interventions on water flows and availability of 'private' and 'public' water.

