Mali: the value of biodiversity in a fragile environment

Known by its historical past because of the vast and powerful empire that surprised European visitors in the XIV century, nowadays the Malian territory comprises more than 1,200,000 square kilometres in West Africa, over the Sahara desert in the north, the Sahel grasslands in the centre and the savannah region in the south. In the Sahel, human life as well as that of the flora and fauna follow the Niger River's annual flood cycle, with high water levels between August and November. More plentiful rainfall and water courses --including the Niger River-- in the southern region give place to a more lush biodiversity.

With more than 58% of its land desert and another 30% threatened by the continued encroachment of the Sahel, Mali faces desertification and deforestation as two capital environmental problems, both of them strongly related to the loss of biodiversity.

The wide variety of plants and animals from the forests and other ecosystems containing trees --like the savannah-- constitute an important component of household food supply. In many villages and small towns, the “hidden harvest” from forests and trees is essential for food security since it provides a number of essential dietary products. For example, the fruit of Saba senegalensis is widely eaten in Mali. The failure of the plantation projects using alien fast growing species in order to mitigate the effects of the drought registered in the decade of 1970, was due to the fact that they did not recognise that for many rural people the non-timber forest products are important to their social and economic survival. Thus they preferred native species to alien ones, no matter how fast they could grow.

Forests and trees contribute also indirectly to food security because they have a major role in the sustainability of agricultural production systems by providing, for example, nitrogen to the soil as in the case of leguminous species. This is the case of an agroforestry system adopted in Mali, with millet cultivation under Acacia albida.

The meat of wild animals --from mammals to insects-- that are hunted or collected in the forests for food, known as bushmeat, is an important source of animal protein in both rural and urban households. Many communities still depend on wild animals and their products, used alone or with herbs, for medication and the treatment of a wide variety of diseases.

The use of wildlife as a food resource is controversial. To the official viewpoint the decline of wildlife in many parts of the country results from increasing population and the associated demand for land for agriculture and human settlement. Nevertheless such simplistic approach ignores the underlying causes of deforestation and forest degradation. Nowadays the necessity of integrating the needs of local people into the management of wildlife resources and biodiversity is accepted as the only way to ensure conservation.

A similar situation is occuring with regards to firewood. A study conducted in 2000 by Mali's National Energy Bureau concluded that firewood accounts for nearly 100% of the country's domestic fuel needs, which --according to the study-- would mean that each year more than 464,285 hectares of

land would have to be deforested for energy supply purposes. However, taking into account recent studies in Africa, which prove that firewood use is not --as previously believed-- a major cause of deforestation, the conclusions of the above study should be subject to further scrutiny.

Mistaken policies like those adopted in the past to conserve the forests in Mali, based on the “Blame the poor” approach, need to be avoided. In the mid-1980s an oppressive set of state policies was adopted. The Forest Service implemented a series of draconian restrictions on the use of forest products by local communities. This step was very unpopular and strongly resisted, since fines exceeded by far the rural per capita income, people

were left without an important portion of their livelihoods, and policy implementation was aggressive. At last it had to be abandoned without any positive results.