



Applying the ecosystem approach to forest biodiversity

Despite being high on the political agenda, biodiversity is still declining. A new analysis has focused on forest biodiversity in Finland, Russia and Peru and concluded that a global ecosystem approach can make a link between human and ecological systems but bottom-up initiatives are needed to effectively put the concept into action.

Since the Rio Earth Summit in 1992, there have been a number of initiatives to improve the state of biodiversity at global, national and regional levels. These have been very effective in increasing awareness of the significance of biodiversity, but there is little evidence of real improvements in biodiversity and, if anything, there has been a decline. This has led to growing interest in the ecosystem approach and ecosystem services that stress the interdependence of human and ecological systems. On one hand, the ecosystem approach is very locally based, with the aim of solving local problems whilst, on the other, it is based on global principles, such as those in the Convention on Biological Diversity (CBD)¹ and, in this sense, it has a “top down” approach.

One of the most critical areas for global biodiversity is protecting biodiversity in forests and the study investigated how Finland, Russia and Peru are responding to this challenge. These countries all have substantial forest land and a range of forestry institutions. In Finland, forests have high economic importance and at least 60 per cent are owned privately. There is a tightly organised incentive structure to grow and maintain forests but this tends to support forest growth rather than biodiversity. Russia has an incentive structure, but there is less private ownership and it has a fragmented forest ecosystem. In Peru, the state owns most of the forests but it has little control over the use of forest resources by small-scale local actors. The study suggests this is because the bureaucratic processes for securing logging rights are very demanding, especially on small enterprises. The main threat to biodiversity in Peru is land conversion and unsustainable (and unmonitored) harvesting. In the past all three countries have developed institutional organisations which have not prioritised biodiversity, but are now realising their responsibility in this area.

The ecosystem approach is attracting attention in all three countries. In Finland, the local initiative – the Natural Values Trading (NVT) – aims to break the habit of separating forest resources, biodiversity and local livelihoods, whilst the Forest Biodiversity Action Programme for Southern Finland (METSU) introduces voluntary, market-orientated ways to protect biodiversity. Initiatives will most likely take the form of allowing private landowners certain rights if they recognise and cultivate ecosystem services.

Russia has traditionally separated conservation and land use for economic purposes but recently NGOs appear to be active in promoting biodiversity-sound forest management. There are a growing number of coalitions between NGOs and the forest industry and increasing use of voluntary certification schemes, such as those from the Forest Stewardship Council.

Peru has a history of neglecting the value of ecosystem services and expanding its agricultural land, often at the expense of forests. However, in 2010 the country approved a National Program of Forest Conservation for Mitigation of Climate Change, which includes protection of 54 million hectares of forest. This will be achieved through schemes such as logging fee discounts on voluntary certification, ecotourism and payments for ecosystem services.

The study has identified how three different countries are applying the ecosystem approach to forest biodiversity. Despite the differences, the incentive structures in all three countries are shifting towards giving civic actors (such as the timber industry and NGOs) more freedom in participating in the ecosystem approach. However the nature of this participation is specific to the country and its institutional context. The study concludes that the success of adopting the ecosystem approach depends on the interaction between the local initiatives and global top-down concepts that are embedded in international conventions and frameworks.

1. See: www.cbd.int

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