



A Framework for Action for Sustainable Development

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Landscapes – FAQ

What is a “Landscape Approach” and why is it necessary?

A “landscape approach” means taking both a geographical and socio-economic approach to managing the land, water and forest resources that form the foundation – the natural capital – for meeting our goals of food security and inclusive green growth.

To feed a growing population we need to intensify agricultural production. We need to produce more on less land, and we need to make agriculture more sustainable. At the same time, we must become less dependent on resources like water and forests. We must learn how to cultivate ecosystem services such as water purification, water retention, soil fertility, carbon sequestration, and coastal protection, and farm in ways that will have reduced environmental impact.

The bottom line is that we can’t achieve global food security without preserving the ecosystem services that forests provide, and we can’t sustain forests without thinking of how we will feed a growing population. We can’t grow food without enough water. A landscape approach has the potential to address the full range of critical functions for both provision (of food, fiber, energy and so on) and healthy ecosystems.ⁱ

The World Bank Group is increasingly employing landscape approaches to implement strategies that integrate management of land, water, and living resources, and that promote sustainable use and conservation in an equitable manner. By taking into account the inter-actions between these core elements of natural capital and the ecosystem services they produce, rather than considering them in isolation from one another, we are better able to maximize productivity, improve livelihoods, and reduce negative environmental impacts. Put more simply: we can “use natural capital without using it up.”

This might involve restoring degraded parts of the landscape (for example through restoration of degraded or saline lands, reforestation, erosion control, flood management); enhancing productivity on the most fertile land; integrating different production systems such as livestock, crop, and tree production into the same landscape; watershed management, and including local communities in the design and implementation of the landscape approach.

Some countries are already incorporating landscape strategies as a central part of national development policy. In February 2011, Rwanda announced a program of border-border landscape restoration (see below). Ethiopia’s new agriculture investment program encompasses numerous large landscape restoration initiatives, and the Fadama program in Nigeria involves investment of over a billion dollars.

Are landscape approaches tailored to a specific geographical context?

Yes. There is no universal recipe for applying a landscape approach. The idea behind this approach is to take the particular geographical context into account; what you actually do depends on where you are. For example, a different mix of landscape restoration measures will often be required for the upper and lower parts of a watershed. And different strategies should be adopted depending on rainfall, topography, and water abundance. Typically, a landscape approach will:

- consider people as central elements of the landscape;
- take an integrated, spatial approach to the management of land, water and vegetation within a particular geographical area, taking account of upstream and downstream impacts;
- Combine measures to support sustainable intensification on the most fertile land with landscape restoration and soil and water conservation on degraded land;
- Within these principles, adapt the focus of support measures to the particular geography;
- aim to restore a balance of environmental, social, and economic benefits from the use of land, water, forests and trees within a broader pattern of land and water use; and
- Monitor impact and take into account lessons learned.

What are some examples of a Landscape Approach?

The Great Green Wall is an initiative developed by the African Union to develop a green belt 15km wide stretching across Africa from Senegal to Djibouti, and is an excellent example of a transnational landscape approach. In terms of scale, this landscape initiative is meant to protect the land against desert encroachment and soil erosion.

In Rwanda, agriculture is challenged by uneven rainfall, production variability, small land holdings, limited commercialization, and land constraint due to population growth. The Land Husbandry, Water Harvesting and Hillside Irrigation Project addresses these challenges through a landscape approach by providing infrastructure for land husbandry (e.g. terracing, downstream reservoir protection), water harvesting (e.g. valley dams and reservoirs) and hillside irrigation (e.g. water distributions piping, fittings and field application for basin and furrow irrigation). In addition, the project provides training for farmers, supports farmer organizations and enhances marketing and financing activities. As a result, the productivity in rain-fed areas had tripled, small farmers have now access to improved farming methods, more land is protected against soil erosion and the share of commercialized agricultural products has increased. At the national level, Government has adopted a program for 'border-to-border' landscape restoration, and intends to adopt an ecosystems approach to implement this.

Landscape approaches in large watersheds may have a different emphasis in the “upper” and “lower” river basin. In Kazakhstan the Syr Darya/Northern Aral Sea Control Program has supported a range of measures to restore natural flooding regimes and improve land and water management. The results have included restoration of grazing lands, improved reliability of irrigation and drinking water, wetland ecosystems restoration and recovery of the Northern Aral Sea, with partial recovery of its fisheries. Further up the watershed in the Ferghana Valley in Uzbekistan the focus is on improved groundwater and irrigation management, while in the hilly areas of Tajikistan the focus is community watershed management, with water harvesting and erosion control measures.

In Albania, a project that integrates forest, pasture and agriculture management shows that with strong involvement of local communities, whole landscapes can recover with dramatic results. Improved forest governance, local management, small-scale investments and managed grazing measures have halted unsustainable land use, thereby reducing carbon emissions and protecting key watersheds. As a result, incomes from forest and agriculture activities have increased by 50 percent in targeted micro-catchment areas.

On Colombian hillsides, the landscape approach is integrating livestock, trees and a range of crops, depending on the slope of the land and the direction of the streams, to increase incomes while conserving the landscape. In the lower Amu Darya river basin in Uzbekistan the approach includes improving water management for drainage and salinity control and wetland restoration, increasing productivity of irrigated agriculture and restoring grazing lands.

In Ethiopia's Great Rift Valley, the landscape approach has included establishing forest cooperatives that sustainably manage and reforest the surrounding land using Farmer-Managed Natural Forest Regeneration technique, thus addressing deforestation that threatens groundwater reserves that provide 65,000 people with potable water. In Niger, farmer-managed woodland regeneration is increasing fodder and fuel-wood, providing shade for animals, increasing organic matter in the soil, and enabling yield increases for cropped agriculture.

The World Bank Loess Plateau Watershed rehabilitation project is an example of an integrated landscape approach from China. Some associated television documentaries produced on the project's integrated approach illustrate its impacts.

What does it take for a Landscape Approach to Work?

In general, a landscape approach works better if land tenure rights are secure – this way, individual farmers, households, and communities have an incentive to invest in improved land and water management and to protect trees and forests. Appropriate pricing regimes encourage rational use of scarce resources. Regulations are also needed (e.g., to control pollution run-off or avoid free grazing of animals) but need to be backed up by appropriate incentives for private farmers to invest in “public good” activities which may benefit others in landscape.

Landscape management often also requires “upfront” investments which yield benefits in the longer run. This requires creating an enabling environment to access long term finance, or to overcome the trade-offs between short term costs and long term benefits. Governments can support provision of, and investments in, public goods such as research in improved breeds and farming systems.

It is important to have communications and information infrastructure in place. If people don't have access to information they can understand, then they don't have an incentive to change behavior. Improved technologies also have a role, as does taking advantage of local knowledge. Creating an environment conducive to behavioral change is also important. Decentralized decision-making facilitates locally adapted solutions and encourages local communities to participate. Access to information and long-term finance, as well as transparent and accountable institutions, are essential.

How is the World Bank helping?

The World Bank is helping to promote landscape approaches through lending and non-lending instruments, as in the examples provided above, through advocating climate smart agriculture and agricultural development within a broader inclusive green growth framework, and through scaling up support to agriculture generally. The World Bank is building partnerships both globally and through country-specific programs to promote integrated landscape solutions to agriculture, rural development and broader ecosystems management challenges. For example, the Program on Forests (PROFOR), a multi-donor partnership housed at the Bank, is working to mobilize additional investment in trees and landscape restoration in Africa, among many other projects. The World Bank is also expanding use of a range of trust fund instruments to promote both innovation and wider application of the concept, including those supported by the climate funds and the GASFP (Global Agriculture and Food Security Program).

