National and international focus on forests and forestry has grown rapidly in recent times. New factors are coming into play and an increased understanding of forest-related processes and how to manage them for the greatest benefit is required. Improved performance at all levels will be necessary and it is likely that a protracted period of institutional strengthening and training will be required to implement new standards and expectations effectively.

Education is necessary both to address human resource limitations in forestry and to increase awareness among the general public of forests and forestry. The long time scales over which national-level changes in forests and forestry occur strongly suggest that education in relation to values of forests and the opportunities and challenges faced should be a key focus in the Asia-Pacific region. The current scarcity of skilled human resources in many countries points to a clear need to improve tertiary education in forestry, while there is also evident need to strengthen education in a general sense and to increase awareness in relation to forests and natural resources.

The region’s growing population and skew towards younger generations place significant emphasis on the need for improved education and awareness. Currently, 51 percent of the region’s population is under 30 years of age (Fig. 1). By 2020, this group will acquire huge purchasing power while increasingly taking responsibility for steering the region’s institutions. Without an environmentally smarter next generation of consumers and decision-makers, it is likely that environmentally sustainable practices will remain outside the mainstream and resources will be irretrievably eroded. More immediately, the lack of human resource capacity in forestry and the increasing complexity of forest management, particularly with respect to climate change, imply that high-quality education and training should be made available to those working in forestry and related disciplines at local, provincial and national levels.

Currently, institutional capacity within the forestry sector is scarce in many countries in the region. At the national level there are often only a handful of people with a comprehensive understanding of state-of-the-art forestry and although national and international NGOs provide vital support in several countries, in others the potential of civil society remains largely unrealised in forest management.

At the field-level, severe skill deficits exist in relation to forest management. Knowledge of techniques for community engagement, reduced impact logging, fire management, forest mensuration, afforestation/reforestation, assisted natural regeneration and many other areas is often lacking. Among those fully or partially dependent on forests, understanding of formal forest policies and legislation and of local-level rights and responsibilities is often almost non-existent and, as such, forest policy implementation is often lacking. More generally, topics such as the natural environment and natural resources are often not well covered in the curricula taught in schools and urban children may leave school without ever having visited a forest.

![Figure 1. Age distribution in the Asia-Pacific region in 2010 and 2020.](image-url)
At the policy and strategic-planning levels, constraints in forestry often stem from poor identification of policy issues, poor policy formulation and inadequate support for implementation. Technical solutions are rarely lacking and yet the contributions of forestry remain deficient in many countries. Forestry professionals’ abilities to evaluate economic, environmental and social aspects of forest policy; to effectively communicate findings and opportunities; to formulate proposals and policy papers; and to oversee policy implementation and evaluation often need upgrading. Analytical and communication skills and in-depth understanding of the multiple issues that make forestry a uniquely challenging area for effective policy making are needed.

The way forward

The weak implementation of forest policy in many countries in the region suggests that education is particularly important in relation to the policy process. Without an understanding of the means by which stakeholders can be consulted and then mobilised to tackle complex problems, it is almost certain that forest policy will continue to exist in document form only. Too often, local-level stakeholders are completely unaware of the aims of forest policy and their rights and responsibilities. Heavily centralised processes and command-and-control approaches are no longer tenable and efforts need to be made to re-educate forestry officials to enable them to adapt to new roles (Box 1).

A first step along the path towards institutional strengthening might be an institutional skills audit to compare current skills to necessary skills. External assistance to assist upskilling is likely to be necessary and many organizations are becoming more involved with training in forestry and development. Within institutions there is also a need to promote learning cultures, and to provide mechanisms to transfer skills in addition to providing external training. In implementing education and training activities, different methods will be appropriate at different levels and may range from training of trainers, as part of a cascading approach, to individual scholarships for highly skilled positions.

Another key area for educational improvement in relation to forests and forestry is in schools (Box 2). Creating respect for the natural world and understanding of the multiple benefits that forests offer - from biodiversity protection to timber production - will be vital for the future management of the region’s natural resources. Environmental education is equally important for urban dwellers as well as rural people. Without a basic understanding of natural resource issues, growing disparities between urban and rural areas, in terms of both wealth and understanding, may divide opinion and threaten the unity and inclusiveness of approaches to national development. An important way to introduce young people to forests is through formation of nature groups, visits to forest areas and involvement in activities such as tree planting, which instil a better understanding of the component processes behind forest ecosystem functioning.

Box 1. Professional forestry education

Constraints in forestry often stem from poor identification of policy issues and poor policy formulation. The FAO Forest Policy Short Course aims to upgrade forestry professionals’ abilities to evaluate economic, environmental and social aspects of forest policy; to effectively communicate findings and opportunities; to formulate proposals and policy papers; and to oversee policy implementation and evaluation. ITTO’s fellowship program, established in 1989, aims to strengthen the expertise of mid-level professionals working in tropical forestry while promoting sustainable management of tropical forests, efficient use and processing of tropical timber, and production of better economic information about the international trade in tropical timber.

Box 2. Kids to Forests

“Kids to Forests” is an FAO initiative aimed at exposing school-age children to the multiple benefits of forests through hands-on learning experiences that can lead to a better understanding of sustainable forest management. The initiative organizes country programmes including interactive field visits, games, activities and discussions that excite and educate students about sustainable forest management, as well as developing appropriate educational materials. At the heart of the initiative is recognition that education can address forestry knowledge gaps and is a key to shaping how people engage with forests.

For more information, please go to the outlook website: http://www.fao.org/asiapacific/forestry-outlook