

September 2013

E



منظمة الأغذية  
والزراعة للأمم  
المتحدة

联合国  
粮食及  
农业组织

Food and  
Agriculture  
Organization  
of the  
United Nations

Organisation des  
Nations Unies  
pour  
l'alimentation  
et l'agriculture

Продовольственная и  
сельскохозяйственная  
организация  
Объединенных  
Наций

Organización  
de las  
Naciones Unidas  
para la  
Alimentación y la  
Agricultura

## ASIA-PACIFIC FORESTRY COMMISSION

### TWENTY-FIFTH SESSION

Rotorua, New Zealand, 5-8 November 2013

## BUILDING RESILIENCE IN FORESTS, LANDSCAPES AND COMMUNITIES

### Secretariat Note

#### Introduction

1. During the past several years, increasing attention has been paid to the concept of 'resilience'. Resilience may be defined as "the ability of a system to respond to external forces and to be able to persist". In the modern context, it refers to communities and ecosystems that are exposed to increasing levels of risk and uncertainty and its development reflects that approaches to date have often been inadequate in addressing needs and building long-term capacities to withstand shocks. In ecosystems, including forests, resilience is the capacity to respond to disturbance by resisting damage and recovering quickly. Such disturbances can include natural events such as fires, cyclones, droughts and floods or human activities such as logging. In the human dimension, resilience encompasses the ability to foresee change, the capacity to absorb a negative shock, to innovate and take advantage of positive opportunities and to cope with whatever impacts the future delivers.

#### Resilience in forests

2. The concept of resilience originates in ecology, where it is used to describe the persistence of natural systems confronted by environmental changes due to natural or anthropogenic causes. As human populations have expanded, accompanied by economic development, pressures on forests have multiplied. Besides deliberate or illegal land-use change, deforestation and forest degradation have occurred when the threshold of forest resilience has been exceeded or threatened. However, as the Environmental Kuznets Curve hypothesizes, once economic development passes a certain point, efforts at forest rehabilitation have seen forest areas increase and forest quality improve in many countries (i.e. by reducing factors which are compromising resilience and/or by actively assisting forests to rebuild resilience).

3. Assisting forests to maintain or enhance their resilience is taking on heightened significance in the face of climate change. Climate change is expected to be accompanied by an increasing preponderance of extreme climatic events in many areas, making forests more vulnerable to degradation by fires, storms, floods, droughts, disease and invasive species. In some places, action may be necessary to ensure forests remain environmentally resilient, largely by maintaining their ecological integrity. This includes safeguarding biodiversity, protecting against overexploitation of forest products or ecosystem services, carefully managing fires, protecting against pests and diseases, monitoring forest health and effectively managing forests sustainably. This will also entail ensuring that the policy, legal and

institutional framework adequately safeguard forests against rapid change and promote, rather than undermine forests' resilience to change.

### **Resilience in forest-dependent communities**

4. Resilient communities are well prepared to cope with the challenges of adverse events and well developed social infrastructure and supporting networks. However, many forest-dependent communities comprise the poorest and most vulnerable people and they may have very low levels of resilience. Research suggests that important influences on community resilience in the event of a disaster include pre-existing community connectedness and infrastructure, community engagement in disaster response and recovery, participation in official decision-making and external support.

5. A variety of strategies may strengthen forest-dependent communities' resilience to future adverse events – some of which may involve forests and forestry. For example, economic resilience can be built by developing livelihoods that encompass diverse income streams rather than dependence on a single product or service. Forest-based income streams may be important in this regard. The maintenance of strong, cooperative social structures that encourage community members to help and support each other will build social cohesion and increase resilience. Community forestry efforts may assist in building this cohesion. Technology and infrastructure can help build resilience in communities; and forests can provide revenue and materials to support this development. Enhancing resilience in forest ecosystems mitigates the impacts of natural and human-induced disasters and can help communities withstand these adverse events and provide resources to assist communities to rebuild and return to normal functioning.

### **Landscape restoration and resilience**

6. In recent times, landscape approaches to sustainable development have gathered momentum. This broad perspective recognizes that trees and forests comprise critical components of rural landscapes and that diversity and diversification at landscape levels can enhance resilience. Individual trees and groups of trees may have specialized roles in farming ecosystems, including providing shade, shelter, fuelwood, food and commodities for sale. At the other end of the spectrum, landscapes can comprise large, contiguous tracts of forest or, alternatively, mosaics of forest and woodlots. Landscape restoration essentially focuses on creating more diverse landscapes that are sensitive to social, economic and biophysical patterns – including geology, microclimates, soils and community needs. Rather than establishing single, monocultural landscapes such as forest plantations or pastureland, landscape restoration aims to create mosaics of different land uses that complement one another and provide cross-sectoral synergies.

7. Landscape restoration in the forestry context aims to increase resilience in both community livelihoods and ecological integrity. Key elements in landscape restoration<sup>1</sup> may include, among others: (1) restoring balance in social, economic and environmental benefits of forests and trees within a broader pattern of land use; (2) focus on enhancing the functionality of a landscape and the supply of ecosystem services across the range of land uses and not merely focus on maximizing new forest cover; and (3) involving people as central elements of the landscape in implementing practices that aim to optimize the land use.

8. Opportunities for forest landscape restoration are enormous. The Global Partnership on Forest Landscape Restoration estimates two billion hectares of degraded lands are available for restoration worldwide, including 400 million hectares in Southern and Eastern Asia. The 'Bonn Challenge', targeting the restoration of 150 million hectares of degraded and deforested land by 2020, gives

---

<sup>1</sup>Deweese, P.A. 2013. *Bouncing back: forests, trees and resilient households*. Working paper prepared for the International Conference on Forests for Food Security and Nutrition, Rome, May 13 to 15, 2013.

momentum to global landscape restoration efforts. Several institutions in the Asia-Pacific region have begun initiatives to step up forest restoration at the landscape level.

### **Resilience in FAO's new Strategic Framework**

9. FAO's new Strategic Framework – endorsed by the 38th Session of the FAO Conference in June, 2013 – identifies five Strategic Objectives (SOs) including SO5: *Increase the resilience of livelihoods to threats and crises*. The Strategic Framework recognizes that disasters have adversely affected the lives and livelihoods of millions over the past years with particular deleterious consequences for the poor and politically marginalized. It also recognizes that climate change will further negatively affect agriculture and rural livelihoods. Development of humanitarian strategies, policies and programmes needs to take into account, reduce and better manage the various and interconnected risks that increasingly affect peoples' livelihoods in order to help people adapt to, and better cope with, slow onset and sudden threats and shocks. In this context, assisting natural ecosystems, including forests, to maintain or enhance their resilience and assisting the socio-economic development of forest-dependent communities are a key to enhancing preparedness for, and resilience in the face of, potentially catastrophic natural disasters.

10. SO5 embodies the need to reduce risks and promote preparedness and recovery arrangements so as to ensure maximum synergies among humanitarian, development and investment efforts, while also building capacities to handle the full range of risk and crisis management actions and related transitions. Prevention, mitigation, preparedness, response, recovery and rehabilitation are key dimensions addressed under SO5 in an as holistic manner as possible.

### **Points for consideration**

11. A special in-session seminar on 'Building Resilience in Forests, Landscapes and Communities' will share expert perspectives with the Commission. In their deliberations, delegates may wish to consider:

- How forest policies and legislation might be re-oriented to assist in building resilient forests, communities and landscapes.
- Ways in which countries can work cross-sectorally in forestry and rural development to promote resilience in forests, landscapes and forest-dependent communities.
- Potential regional initiatives that may assist countries in building resilience in forests, landscapes and forest-dependent communities.