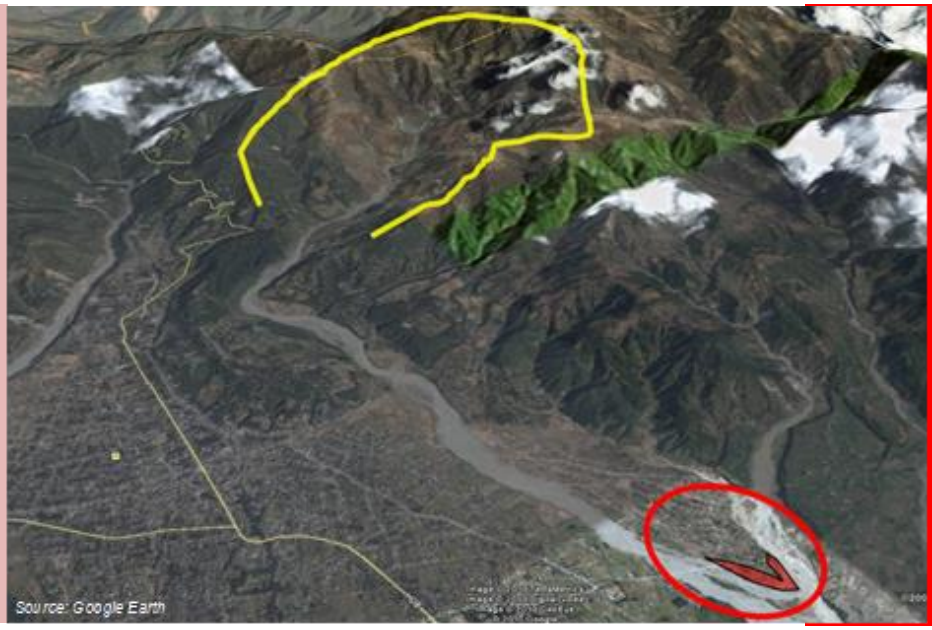
Module 2b: Understanding integrated risk management through landscapes

Exercise

November 2018



Exercises

Title	**Understanding integrated risk management through landscapes**
Introduction and background for facilitators:	This exercise is best used as an introductory exercise to understand how landscapes and ecosystems affects hazards and, therefore, parts of the solution when addressing risks in and Integrated Risk Management approach. Participants get a chance to understand different landscapes, and plot risks pertaining to local disasters, climate change and the ecosystem. This exercise, therefore, provides a basis for further discussions on disaster risk reduction (DRR), climate change adaptation (CCA) and ecosystems management and restoration (EMR).
Aim/learning objective:	On completing this exercise, participants will have a better understanding of what constitutes a landscape approach, the relationship it has with local disasters and climate change impacts and why it is important to consider the surrounding landscape (or watershed) when planning for reducing risks.
Materials and preparation:	1. Flip chart or a chart paper, colour pens, different colour post-its, blue tac. 2. Optional: glue, real grass, leaves, bark, coloured paper, etc. 3. Facilitator may have a short discussion on what a 'landscape' (or 'watershed') means and what it entails if participants are not familiar with the concept.
Duration:	1 hour and 15 minutes
Participant numbers and/or arrangements:	1. Participants arrange themselves into groups – one group for each type of 'landscape' (see below). 2. There should be at least two groups to discuss two different landscapes.

The exercise step by step:

1. Divide participants into groups with each group working on one landscape – depending on the country/-ies of the participants, you may suggest the groups work on, for instance, 'coastal and riverine' landscape, 'mountains and river valleys', 'dry semi-desert rangelands' etc. Each landscape will include areas that are 'upstream and downstream', and all natural features including degraded land, if any, and man-made built-up areas.
2. Each group works with a flip chart or a large chart paper to draw/sketch a landscape they (would) support local communities build resilience.
3. Instead of just drawing, real grass, twigs, coloured paper etc. can be stuck on the paper if this is available and there is time for elaborate illustration.
4. Each group then uses the different coloured post-its to stick on the landscape the local disasters that might typically happen in different parts of the landscapes. Different coloured post-its can be used for different disasters like water shortages, flash floods, water-logging, drying up of streams, landslides, soil erosion, forest fires, heat waves, loss of grasslands, etc.
5. The group then lists the causes of these disasters – why they are happening, how they have changed and what they think will happen in the short- to medium-term future in a 'business-as-usual' scenario.
6. The 'causes' of the disasters need to link up to (a) different parts of the landscapes, including changes in land-use patterns; and (b) to the two key climate parameters – (observed) changes in *temperature* and *rainfall* intensity and patterns. Changing patterns of wind may come up as a strong cause in some landscapes.

7. Each group then explains to the others 'their' landscape, the disasters it faces today and how the disasters link to different parts of the changing landscape, land-use patterns and climate parameters.

Discussion items:

- Are the disasters really 'local' or are the likely causes located elsewhere on the landscape or in any changing climate parameter?
- What are some of the natural changes that have happened and what are some of the man-made changes that are affecting the local hazards and disaster risks.
- Are current disaster risk reduction measures being implemented by the government or supported by NGOs etc. sufficient to deal with the disaster in the years to come? What needs to change?
- Are disasters bound by administrative boundaries or does the ecosystem approach require advocating for managing the landscape at a larger scale ("watershed management")?

Facilitator tips:

- Facilitator may need to allocate more time if the number of groups/landscapes are more than two. If there is a shortage of time, the time given to draw the landscape may be reduced so that only the main features are drawn so as to give enough time for identification of the disasters, their causes and the discussion.
- Facilitator will have to keep disasters limited to natural disasters, and exclude earthquakes.
- This exercise also links to the Exercise A – where participants may try to review their landscape in Google Earth and see it in 3 dimensions.