UN-DESA Division for Sustainable Development Goals

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Sustainable Development Goal 15 - Progress and Prospects: A perspective from Papua New Guinea on Mountain

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**Introduction:**

This meeting is being organized to take stock of where we are in terms of progress towards SDG 15 and share knowledge as to success stories, good practices and challenges; identify particular areas of concern; and suggest ways forward in terms of policies, partnerships and coordinated actions at all levels. Papua New Guinea (PNG) recognizes that some initial assessment of progress was conducted in 2017, however it notes that there are still a lot more work to be undertaken to keep track on what can be achieved by 2030. This short paper/report outlines Papua New Guinea’s efforts in progressing forward the SDG 15, more specifically on Mountain by addressing the following specific questions.

1. **How can the role and value of mountains be included in development of strategies and policy development across sectors?**

<table>
<thead>
<tr>
<th>Role and Value of Mountains (facts and figures)</th>
<th>Sectors</th>
<th>Inclusion into development of Strategies and policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Home to one tenth of world’s population</td>
<td>Agriculture</td>
<td>Inclusion of mountain areas which are arable; potential for livestock and farming (provide and support an alternative for the mountain communities)</td>
</tr>
<tr>
<td>• Cover 25% of earth’s surface</td>
<td></td>
<td></td>
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<tr>
<td>• Habitat to one quarter of all terrestrial biodiversity and world’s biodiversity hot spots</td>
<td>Energy</td>
<td>With the natural water systems to generate sustainable energy; electricity (hydro-power);</td>
</tr>
<tr>
<td>• Provide 60-80% of world’s fresh water</td>
<td>Environment</td>
<td>To map and protect potential biodiversity hot spots of mountain areas (conservation areas) Protection of catchment areas</td>
</tr>
<tr>
<td></td>
<td>Forestry</td>
<td>Mountain areas should be included in forestry plans or strategies as it is plays an important role in the different forest types mainly with the altitude and elevation</td>
</tr>
<tr>
<td></td>
<td>Industrial Processes &amp; Waste</td>
<td>For extractive industries to include mountains mainly with the waterways (buffers; avoid pollution and contamination to the wildlife and marine.</td>
</tr>
</tbody>
</table>

Source: Facts and figures (Mountains and the SDGs-Call for action, Mountain Partnership)
2. How can the data collected for the Mountain Green Cover Index feed into national planning and policies?

Under Indicator 15.4.2: Mountain Green Cover Index is classified under Tier 1 (internationally established methodology and standards are available).

The main purpose of the Index is to monitor and measure changes of the green vegetation in mountain areas (i.e. forests, shrubs, pasture land and cropland). This is undertaken by using satellite imageries to detect changes in the vegetation cover either by reduction/decrease (e.g. fire) or increase in cover (e.g. reforestation).

The data generated can be used to feed into national planning and policies. It is the responsibility for each sector in a country to monitor their activities and ensure their performance is aligned to the indicators prescribed in the policies.

Note: The baseline for this indicator is the total area of the three land-cover/land-use classes in the mountain area of a country expressed as a proportion of the total mountain area within that country’s borders (FAO, 2013)

PNG’s mountain green cover index coverage (%) is indicated below. We assume it includes all IPCC Land use categories:

<table>
<thead>
<tr>
<th>Entity</th>
<th>Code</th>
<th>Year</th>
<th>15.4.2 - Mountain Green Cover Index - ER_MTN_GRNCVI - Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Papua New Guinea</td>
<td>PNG</td>
<td>2017</td>
<td>98.34</td>
</tr>
</tbody>
</table>

For 2018 (16/03/2018) - coverage of mountain area over total land area is-

<table>
<thead>
<tr>
<th>Reference area code</th>
<th>Reference area name</th>
<th>Plain</th>
<th>Mountain</th>
<th>Tot. Area</th>
<th>percentage of the mountain area over total area (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>598</td>
<td>PAPUA NEW GUINEA</td>
<td>261065.099</td>
<td>204044.693</td>
<td>465109.793</td>
<td>43.87</td>
</tr>
</tbody>
</table>

3. How can the Framework for Action on mountains contribute to achieving progress in SDG15 and other SDGs?

Target 15.4 states that by 2030 ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development.

This is one area that PNG has to seriously address.
4. Which adaptation measures can prevent the loss of biodiversity and effects of climate change in mountains?

As per the Aichi Biodiversity Targets and SDG 15.4, these are captured under targets 11 (Protected Areas), 14 (Ecosystem services) and 15 (Ecosystem restoration and resilience).

In terms of adaptation measure, since mountain areas are exposed to different climatic conditions, there will likely be some effects in species abundance or lack of. There must therefore be some resilience mechanism for the flora and fauna to have a natural adaptive ability to the sudden change in climate variation or climate change. This can only be done by conducting a biological survey to take stock and assess the species that are most vulnerable.

This then brings me to one of the key activity that PNG is currently undertaking which will take into account some of the concerns relating to the ecosystem generally and how that can be factored into relevant and appropriate policy interventions.

5. The PNG Multi-purpose National Forest Inventory (NFI)

With the funding assistance of the then UNREDD Programme and the European Union and technical assistance from the UN Food and Agriculture Organization (FAO), PNG has commenced its implementation of the first ever multi-purpose NFI. Some preliminary results are indicating that PNG –

- still has 70% of its forest cover intact;
- as the elevation range increases, the abundance of certain biological and zoological species increase/decrease;
- degree of deforestation and forest degradation varies due to human activities;
- logging for timber and subsistence gardening are the highest human activity that has increased the level of forest degradation;
- Palm oil development is the highest cause of deforestation.

6. Conclusion:

While the NFI is indicating some positive results, there are still challenges that PNG has to take on board in addressing the SDGs.

Challenges:

- Land tenure- 97% under customary, 3% under state of land
- Absence of National Land use Plan
  - Urban development
    - Road construction
- Building
  - Industrial development (have own plans)
- Mining
- Agriculture activities
  - Subsistence – population depended on this activity (level of intensity depends on the crops); Highland region is very high compared to the coastal (shifting practices)
  - Commercial- reference higher altitudes; coffee, tea
- Fire
  - Slash and burn (gardening)
  - Hunting
  - Setting of fire in open grassland (no intended purpose)

- Increase in population – pressure on the land
- Spatial data (updated)- use of remote sensing to detect changes in vegetation loss
- Lack of capacity- to train local communities to manage their mountains. This activity will become very important if PNG wants to be in par with the rest of the world.

Lessons Learned:

An action appropriate and being applied for New York (or anywhere else) cannot be unilaterally applied in PNG. This means that a country has to be assessed on its own in its implementation of the SDG.

Policy Initiatives:

These will be identified and documented when the NFI and other activities that the PNG government has identified are completed. One thing is for certain and that is that the PNG government wants to see all its citizens (both living in rural and urban centres) to have access to natural resources (forests, mountains, water) and be able to fend for themselves (financially) so to sustain their daily livelihood.