

## Papua New Guinea Environment Constraints Map

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### Background

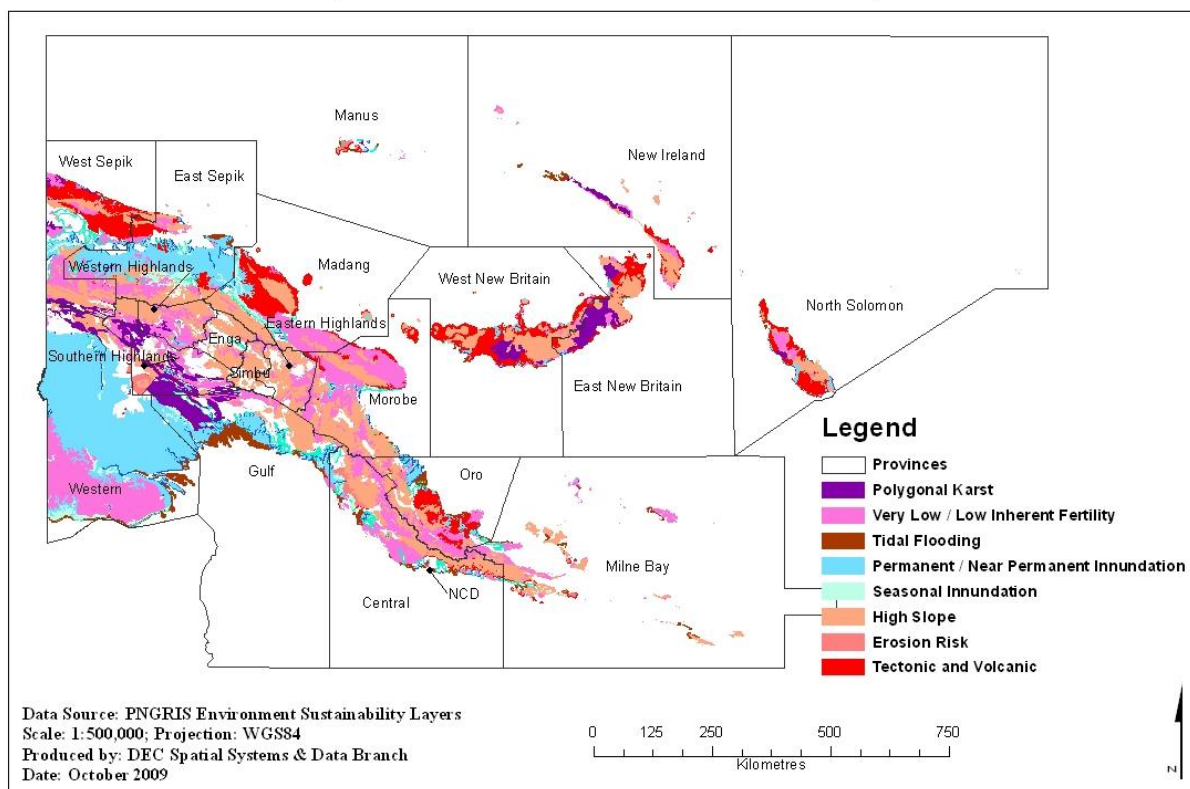
**1995:** The environment constraints map was produced by CSIRO and added as extra layer under the PNGRIS Project after much discussion and debate to address the issue of forest and environment sustainability. Other layers such as water control districts, national parks, wildlife management areas and conservation needs assessment were used as flagged as part of the environmental planning and approval process.

**1996-1998:** Forest Department now known as PNG Forestry Authority (PNGFA) revised these layer into two main categories namely serious and extreme limitations. These two separate layers can be seen in the Forest Inventory Mapping (FIM) System.

**1999-2008:** Biodiversity Priority Areas, EcoRegions and other relevant layers and databases (PNGSIMS and PNGInfo) have been produced to assist with environment sustainability and economic growth. This effort is still ongoing.

**2008-2009:** Environment constraints map been re-produced to assist with environment impact assessment process within DEC. Other public domain layers will be forthcoming in the next update.

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### Environment constraints:

1. **Polygonal Karst** refers to Limestone plateau with narrow karst corridors. Difficult terrain for road construction or log harvesting.
2. **Very Low / low Inherent Fertility** (of soils) refers to poor soils or low base concentration that can accommodate few tolerant species. These sites usually revert to grassland after logging.
3. **Tidal Flooding** is the effect of wave action. Tidal flooding occurs mainly along unsheltered water, with few or no reefs. Good for shipping and log ponds but disastrous for areas within the “ring of fire” (i.e. tsunami disaster)
4. **Permanent / Near permanent Inundation** refers to standing water with or without rain
5. **Seasonal Inundation** refers to water available as runoff during wet season only. Affects harvesting operations.
6. **High slope** refers to dominant slope greater than 30 degrees slope
7. **Erosion Risk** refers to Very high, high or medium erosivity, high or medium / high erodibility, 20-30 degrees slopes. Fragile soils subject to slumping. Roding and Skidding risk.
8. **Tectonic and Volcanic** refers to “ring of fire” areas like Madang (Manam, Karkar and Long Island), New Britain Island, Bougainville Island, Popondetta (Mt Lamington), Milne Bay (Dobu Island) where volcanoes are still active and earthquakes frequent.