

The national responsibility approach and its policy relevance

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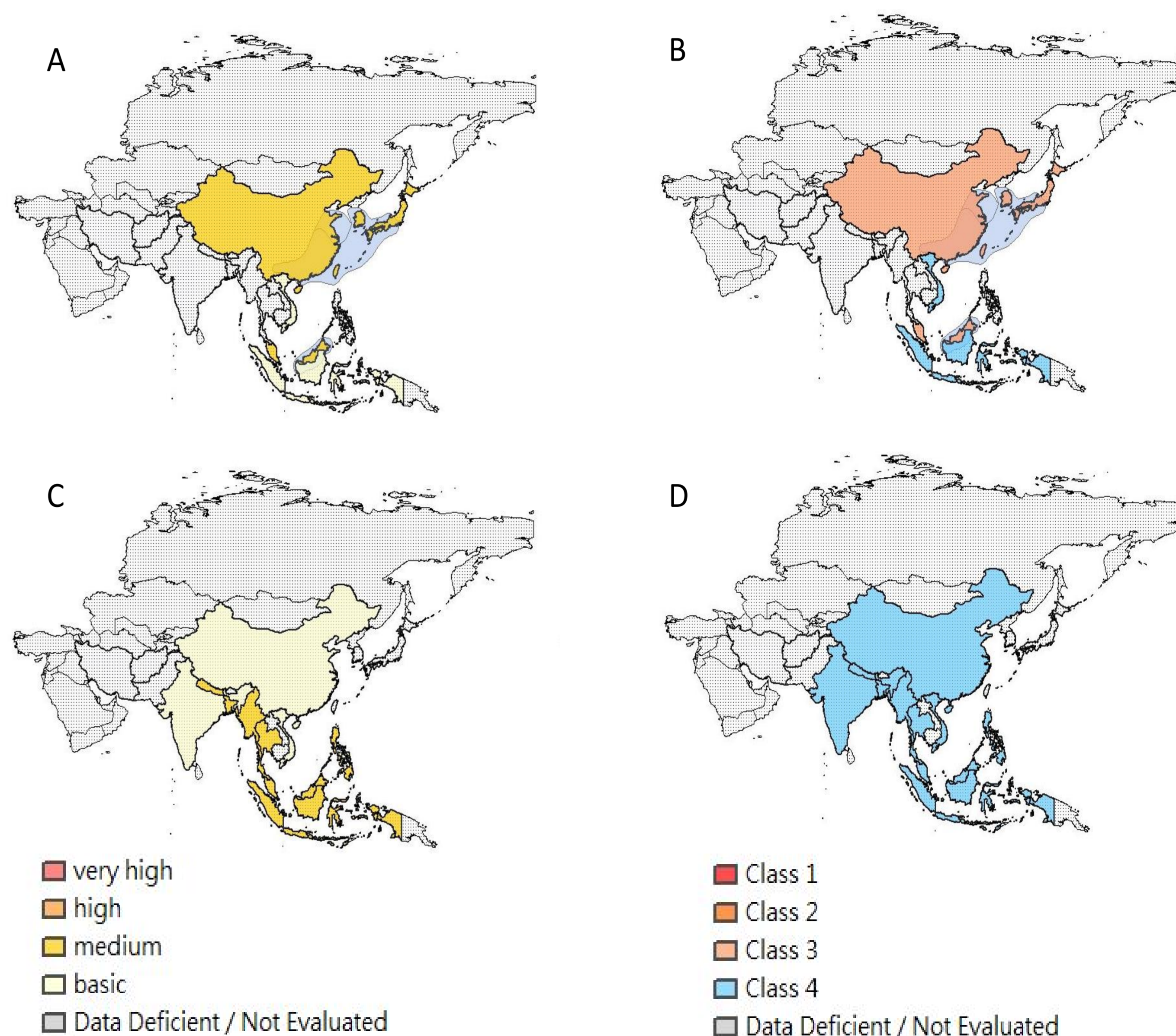
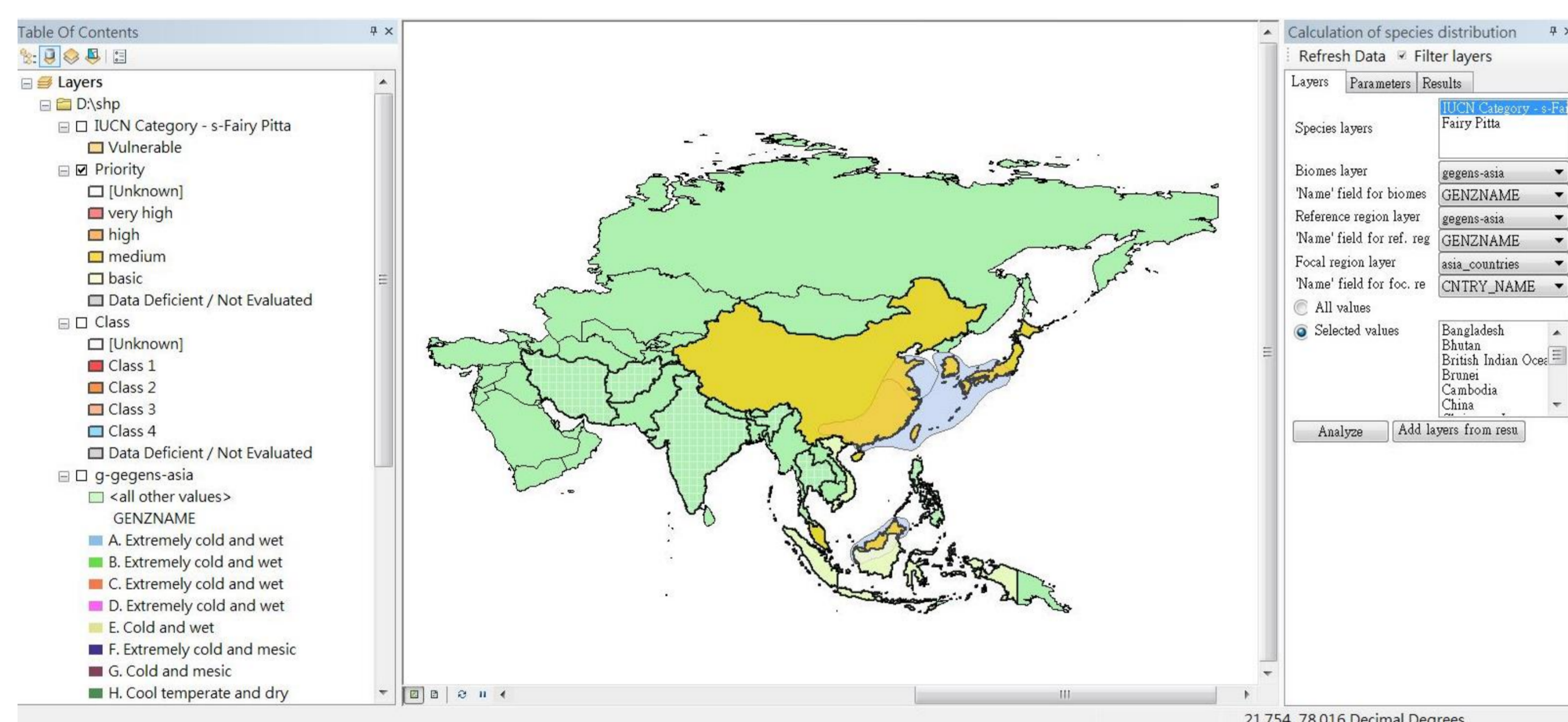
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Limited resources and conservation actions

Conservation actions, such as biodiversity monitoring, wildlife disease monitoring, capacity building or the evaluation and improvement of the effectiveness of current conservation networks in protecting biodiversity, could largely benefit from an intelligible resource allocation. The national responsibility approach helps to identify biodiversity data gaps and therefore has the potential to guide capacity building efforts.

The GIS-tool to determine conservation responsibilities



Conservation responsibilities and priorities can be displayed in the informative vector maps and tabular data, readily usable to inform policy and decision makers in different regions or continents.

The National Responsibility Tool (NRT) uses a GIS-based approach to determine the international importance of a species distribution area in a focal area (Schmeller et al. 2008a,b; 2012).

The assessment is based on the **bioclimatic map** developed by Metzger et al. (2013). As **input data**, the NRT requires a map of the global distribution of the species, habitat or ecosystem, a map of the reference area, and a map of the focal area, usually country borders, in the widely used shapefile format.

The NRT ranks the species according to the conservation responsibilities it calculates and allows the results to be displayed as vector maps with a table of the results on a GIS platform, which can either be **ARC-GIS (ESRI)** or **QGIS (open source)**.

The NRT can also **combine the conservation responsibility rank with the IUCN Red List status**. These complementary assessments would allow determining the conservation priorities of species by nations or other focal areas.

policy relevance

With the necessary data at hand, the national responsibility approach can be used to determine

- which species and habitats to monitor more closely in regard to different threats,
- to focus budgets on species and habitats where countries have high to very high responsibilities, and
- to help attributing monitoring budgets to poorer countries that have high responsibility for many species or habitats, but insufficient resources to closely monitor them.

In summary, urgent actions to render the determination of national responsibilities useful are

- (i) the development of clear data standards,
- (ii) regular assessments of data, to take in consideration advances in data computation and new revisions of data standards, and
- (iii) data downscaling to a higher resolution to reduce the impact of bias to a negligible level and to improve the overall improvement of the quality of distribution data for conservation purposes.

A global solution is required to facilitate globally acting processes and initiatives such as IPBES, the CBD, and GEO BON.