



Convention on
Biological Diversity

Regional Workshop for the Middle East and North Africa on Updating and Revising NBSAPs

Mainstreaming Biodiversity – Global Overview
Approaches and Tools

CBD Secretariat
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Mainstreaming Biodiversity in Production Landscapes and Seascapes



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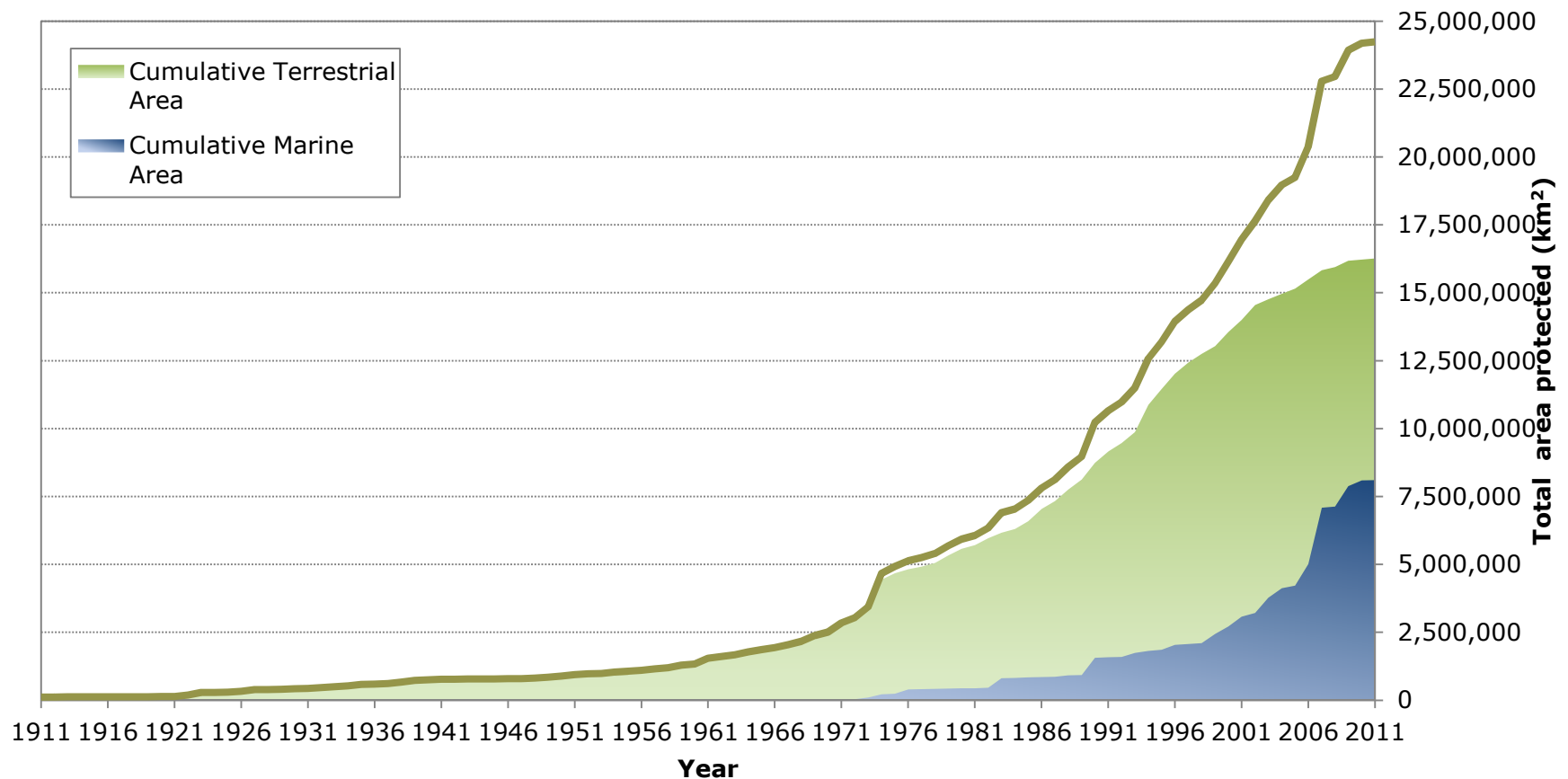
August 2012, New Zealand

Protected areas

a strategy at the forefront of biodiversity



Growth in nationally designated protected areas (1911 - 2011)

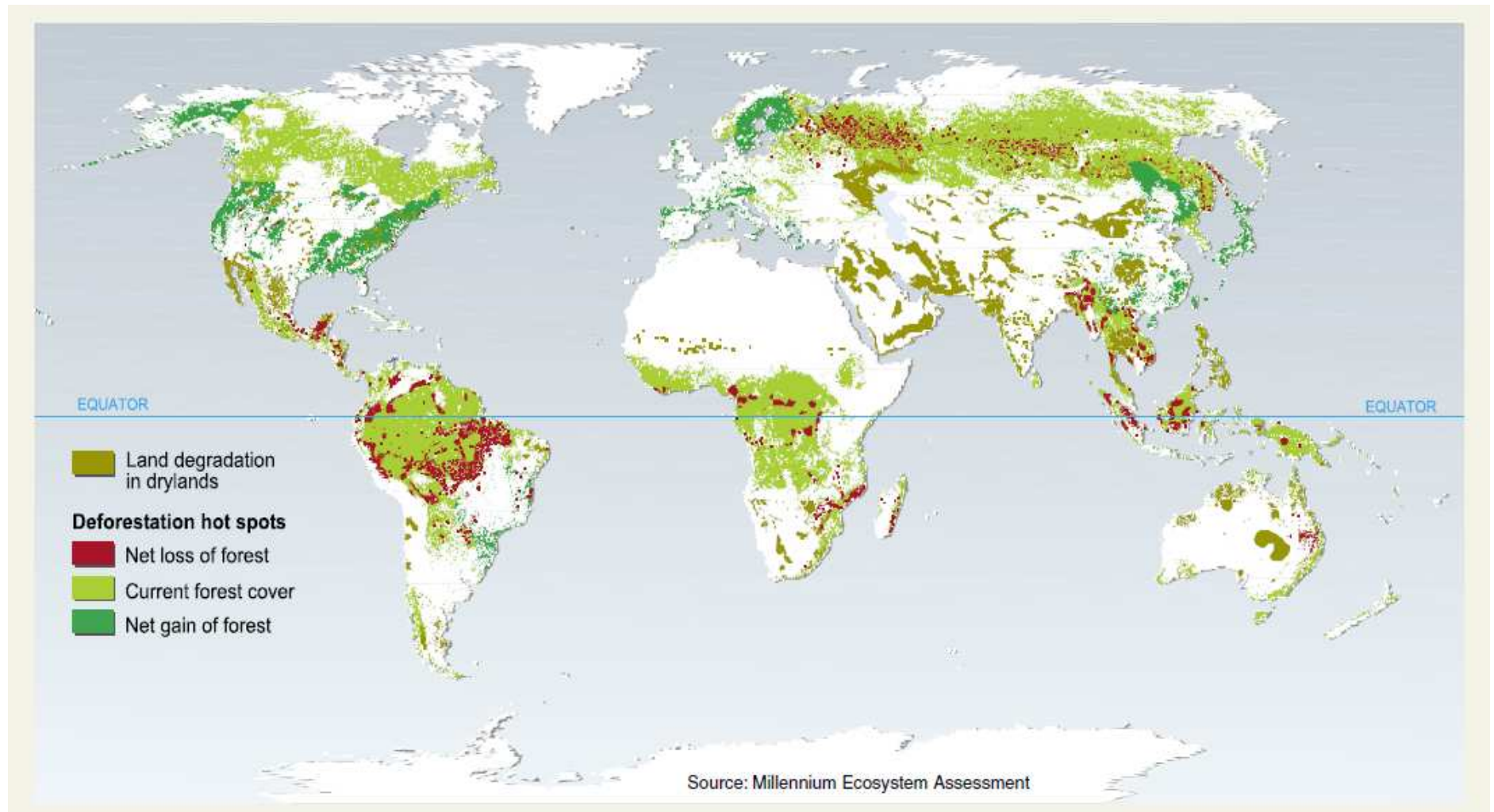


Source: IUCN and UNEP-WCMC (2012) The World Database on Protected Areas (WDPA): February 2012. Cambridge, UK: UNEP-WCMC.

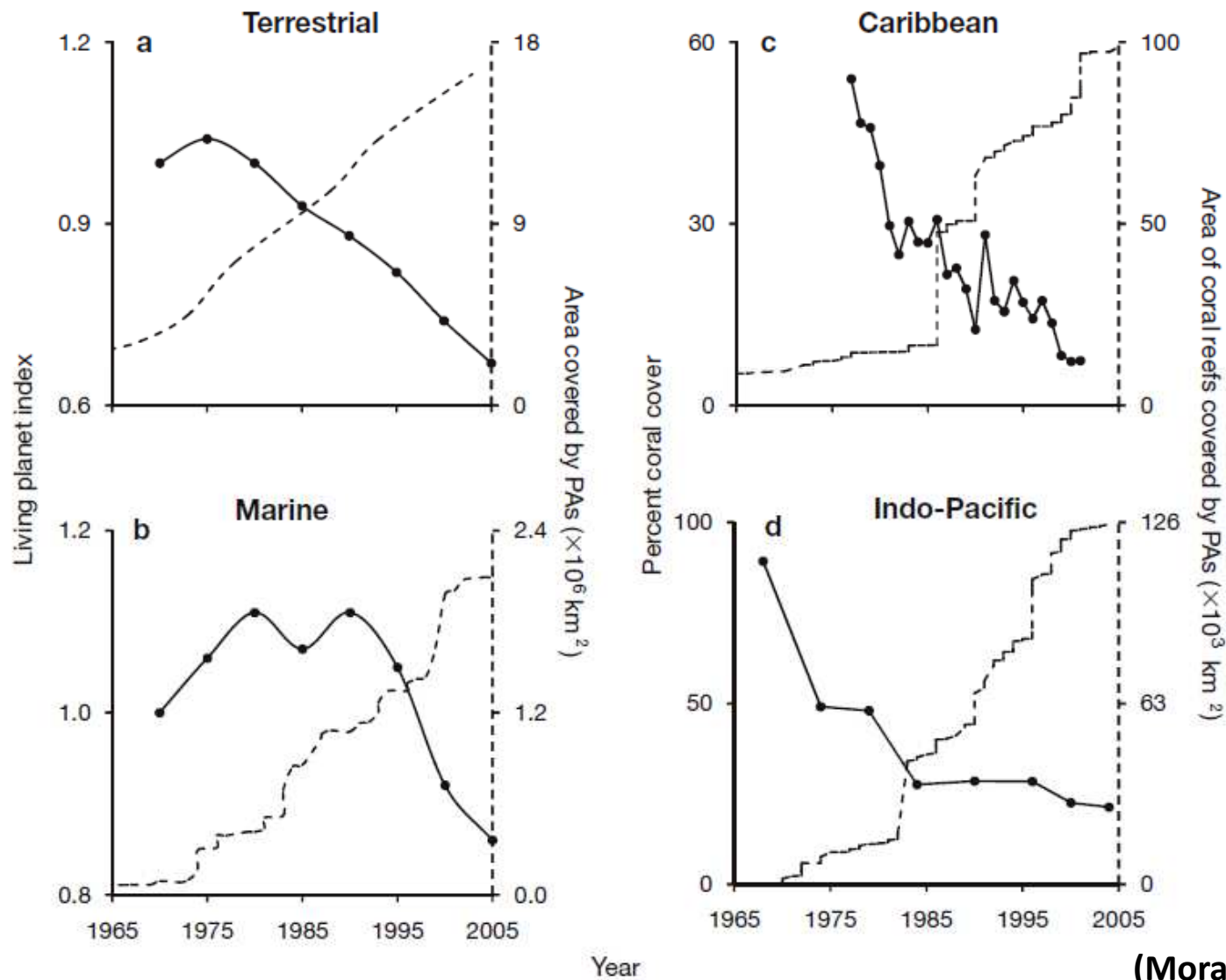
By 2010, there were over 150,000 protected areas covering 12.7% of the world's land area, 1.6% of the global ocean area (7.2% of coastal waters (extending out to 12 nautical miles), 3.5% of Exclusive Economic Zones (extending from 12 to 200 nautical miles)).

But are protected areas enough
– no park is an island

High rates of land cover change in the past few decades



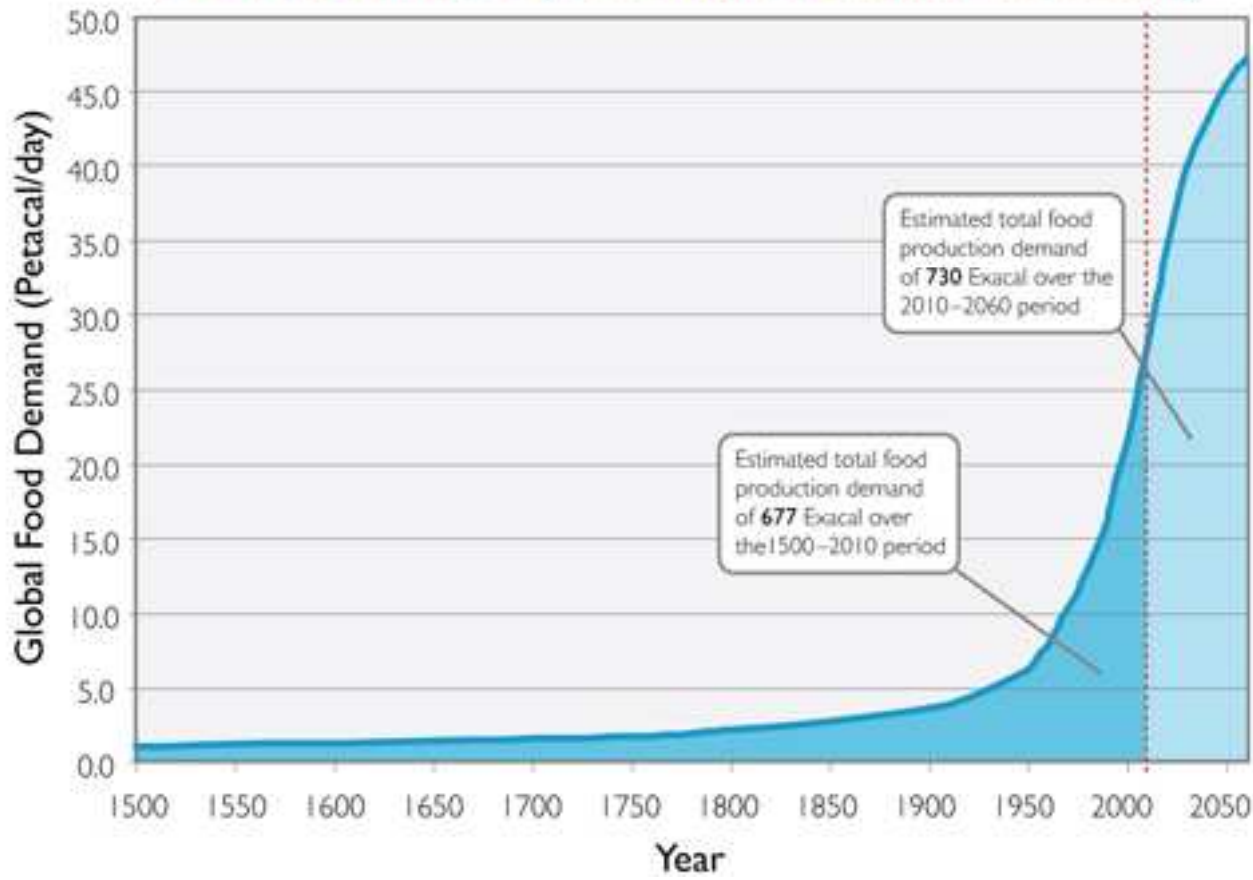
Increase in PAs, but decrease in global biodiversity...



(Mora & Sale, 2011)

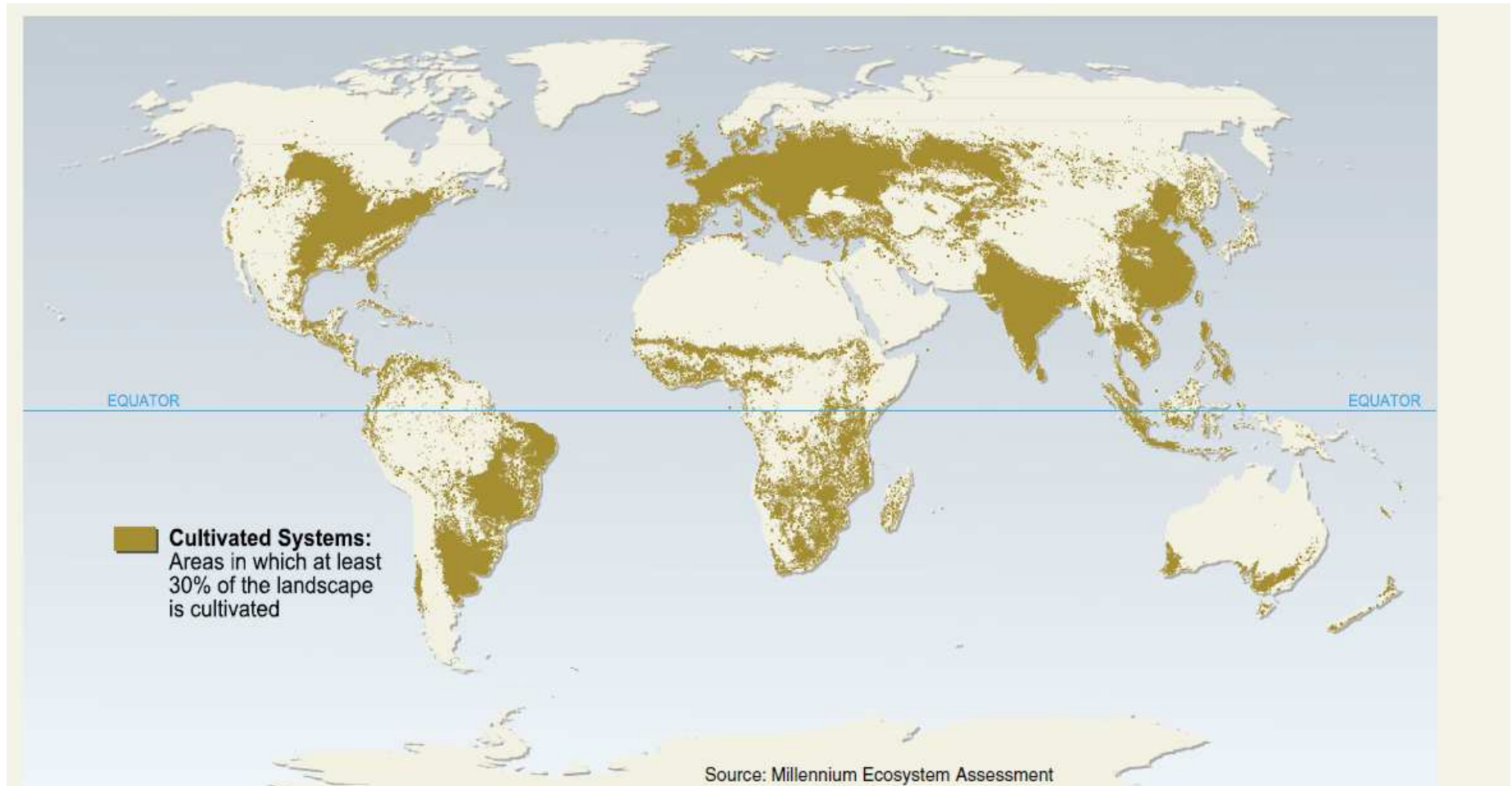
Growing demand for global food production

The challenge to produce enough food will be greater over the next 50 years than in all human history



CSIRO <http://www.csiro.au/Portals/Multimedia/On-the-record/Sustainable-Agriculture-Feeding-the-World.aspx>

Cultivated systems cover large terrestrial area



Oil palm production in Borneo

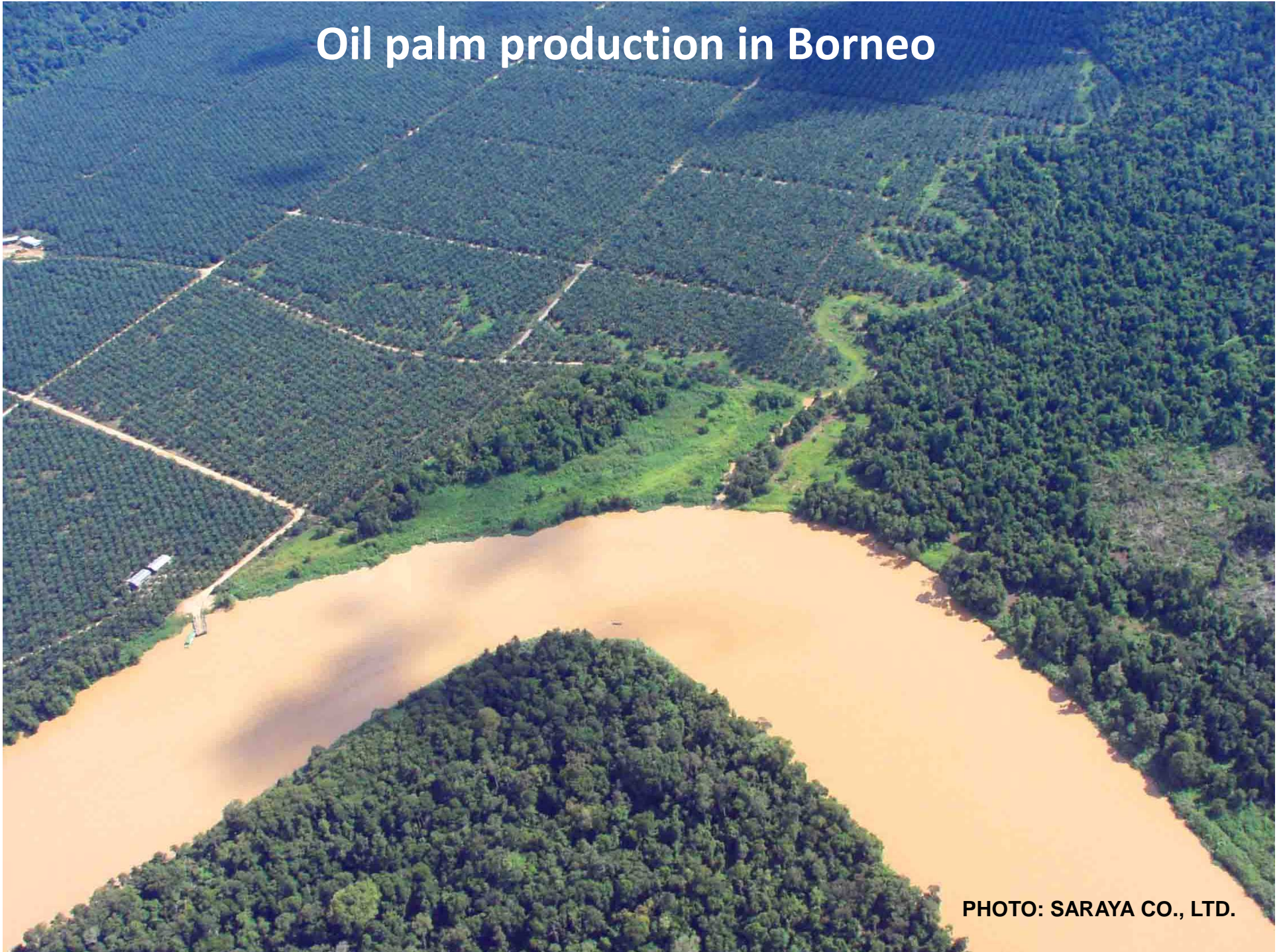


PHOTO: SARAYA CO., LTD.

Mining affects landscapes



Nickel mining site in New Caledonia PHOTO: Kanna MITSUTA

Mainstreaming biodiversity into broader landscapes and seascapes

Satoyama Initiative

- The *Satoyama* Initiative is focusing on sustainably managed **production landscapes and seascapes** through broader recognition of their value.
- *Making full use of traditional knowledge and socio-economic systems to find **locally-adapted solutions for diverse landscapes***



Production landscapes found in ...



Production Seascapes in Japan (Satoumi)



Source: Japan *Satoyama-Satoumi* Assessment

*Socio-Ecological Production
Landscapes and Seascapes (SEPLS)*

- **Dynamic mosaics** of habitats, ecosystems and land uses
- Shaped through **the sustainable interactions between people and nature**

Benefits from management of SEPLS

- *Achieving both of biodiversity conservation and securing human well-being*
- *Maintaining and enhancing resilience of communities through practice*



**The *Satoyama* Initiative
and
the Aichi Targets
(6, 7, 11 and 14)**

Satoyama Initiative and the Aichi Biodiversity Targets (B)

- ✓ Strategic goal B *“Reduce the direct pressures on biodiversity and promote sustainable use”*
- ◆ Target 5: The rate of loss of all natural habitats halved or brought to zero and degradation and fragmentation is significantly reduced
- ◆ Target 6: All fisheries resources are managed and harvested sustainably
- ◆ Target 7: Agriculture, aquaculture and forestry are managed sustainably
- ◆ Target 8: Pollution has been brought to levels that are not detrimental
- ◆ Target 9: Invasive alien species are controlled or eradicated
- ◆ Target 10: Adverse affects by climate change or ocean acidification are minimized



Satoyama Initiative and the Aichi Biodiversity Targets (C)

- ✓ Strategic goal C *“To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity”*
- ◆ Target 11: 17% of terrestrial and inland water, and 10% of coastal and marine areas are conserved as protected areas and other area-based conservation measures, and **integrated into the wider landscapes and seascapes**
- ◆ Target 12: The extinction or decrease of known threatened species has been prevented
- ◆ Target 13: The genetic diversity of cultivated plants and farmed and domesticated animals is maintained and the loss of such diversity is minimized



Satoyama Initiative and the Aichi Biodiversity Targets (D)

✓ Strategic goal D *“Enhance the benefits to all from biodiversity and ecosystem services”*

- ◆ Target 14: Ecosystems that provide essential services are restored and safeguarded
- ◆ Target 15: At least 15% of degraded ecosystems are restored, thereby contributing to climate change mitigation and adaptation
- ◆ Target 16: Nagoya Protocol on ABS is in force and operational



Conservation Target Setting

Desmet P. and R Cowling (2004) Using the species–area relationship to set baseline targets for conservation. Ecology and Society, 2004 vol. 9 (2) p.

art11<http://www.ecologyandsociety.org/vol9/iss2/art11/print.pdf>

This paper demonstrates how the power form of the Species–Area Relationship (SAR) can be used to set conservation targets for land classes using biodiversity survey data.

The SAR predicts that for most Succulent Karoo vegetation types a conservation target of 10% of the land area would not be sufficient to conserve the majority of species. We also demonstrate that not all land classes are equal from a plant biodiversity perspective, so applying one target to all land classes in a region will lead to significant gaps and inefficiencies in any reserve network based on this universal target.

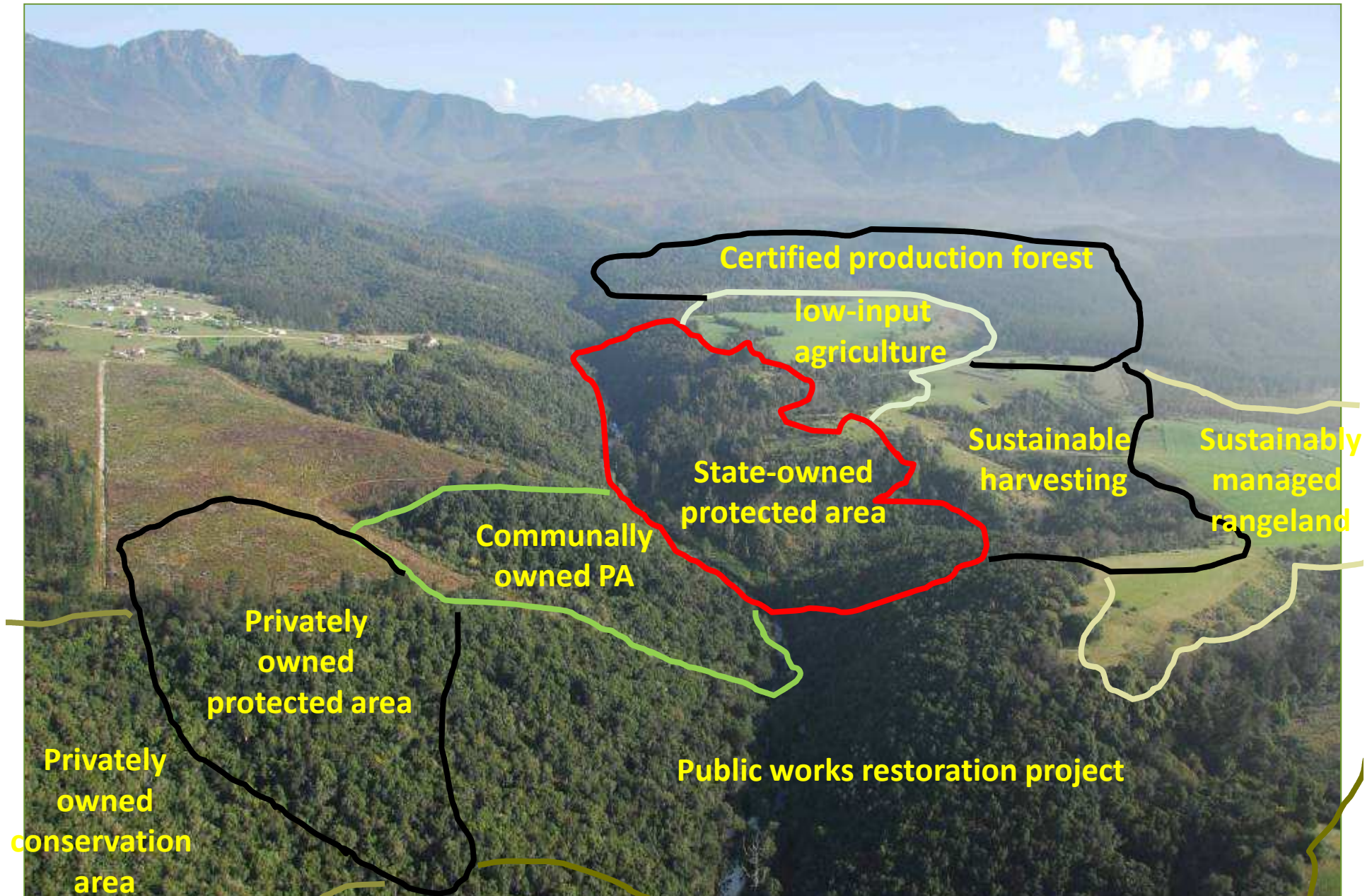
Conservation Target Setting






$$S' = A'^z.$$

$$A' = \sqrt[z]{S'} \text{ or } \text{Log } A' = \text{Log } S' / z.$$

$$z = (y_2 - y_1) / (x_2 - x_1).$$

Landscape approach - mosaic of land uses



TYPE OF LANDSCAPE	PROTECTED LANDSCAPES		PRODUCTION LANDSCAPES		DEVELOPED LANDSCAPES
Type of land	State-owned and managed Protected areas (mostly natural/wild land) e.g. National Park	Mostly natural land of high biodiversity importance privately or communally owned and managed through partnerships e.g. Private Nature Reserve	Largely natural land with elements of biodiversity importance and low-impact production areas e.g. grazing	Land largely modified for intensive production e.g. commercial crops	Lightly to heavily modified landscapes with fragments of important biodiversity
Strategy for conserving biodiversity	Formal protected areas		Biodiversity Stewardship Best-practice production		Land-Use Planning and Decision Making
					
Our main biodiversity management tools	Proclaimed protected areas Protected Area management plans Protected Area Expansion Strategy	Biodiversity Stewardship Agreements (Statutory) Management plans	Biodiversity Stewardship agreements (contract law and informal) Management plans Industry best-practice production guidelines	Best-practice production guidelines and resource for well managed farms	Biodiversity Sector Plans CBAs incorporated into spatial development frameworks Ecosystem guidelines for environmental assessment

Key legislation

