



Consultation Meeting on

Saline Agriculture in a Context of Water
Scarcity: Establishment of a WASAG
Working Group



United Nations
Convention to Combat
Desertification

WHAT IS

DESERTIFICATION?

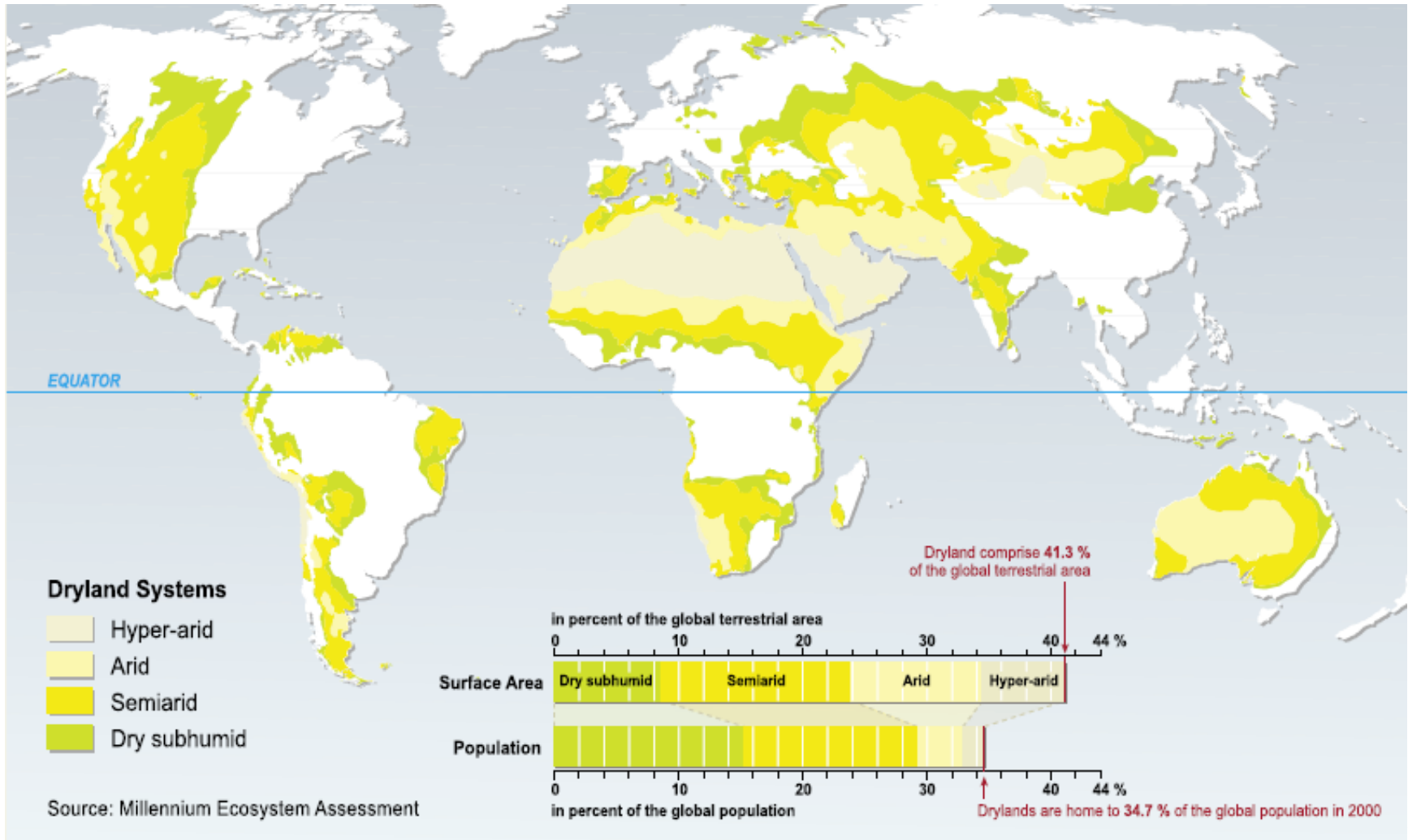
“Desertification” means **land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, including climatic variations and human activities:**

- Prolonged drought
- Soil erosion caused by wind and/or water
- Human activities & habitation patterns
- Deterioration of the physical, chemical and biological or economic properties of soil
- Long-term loss of natural vegetation



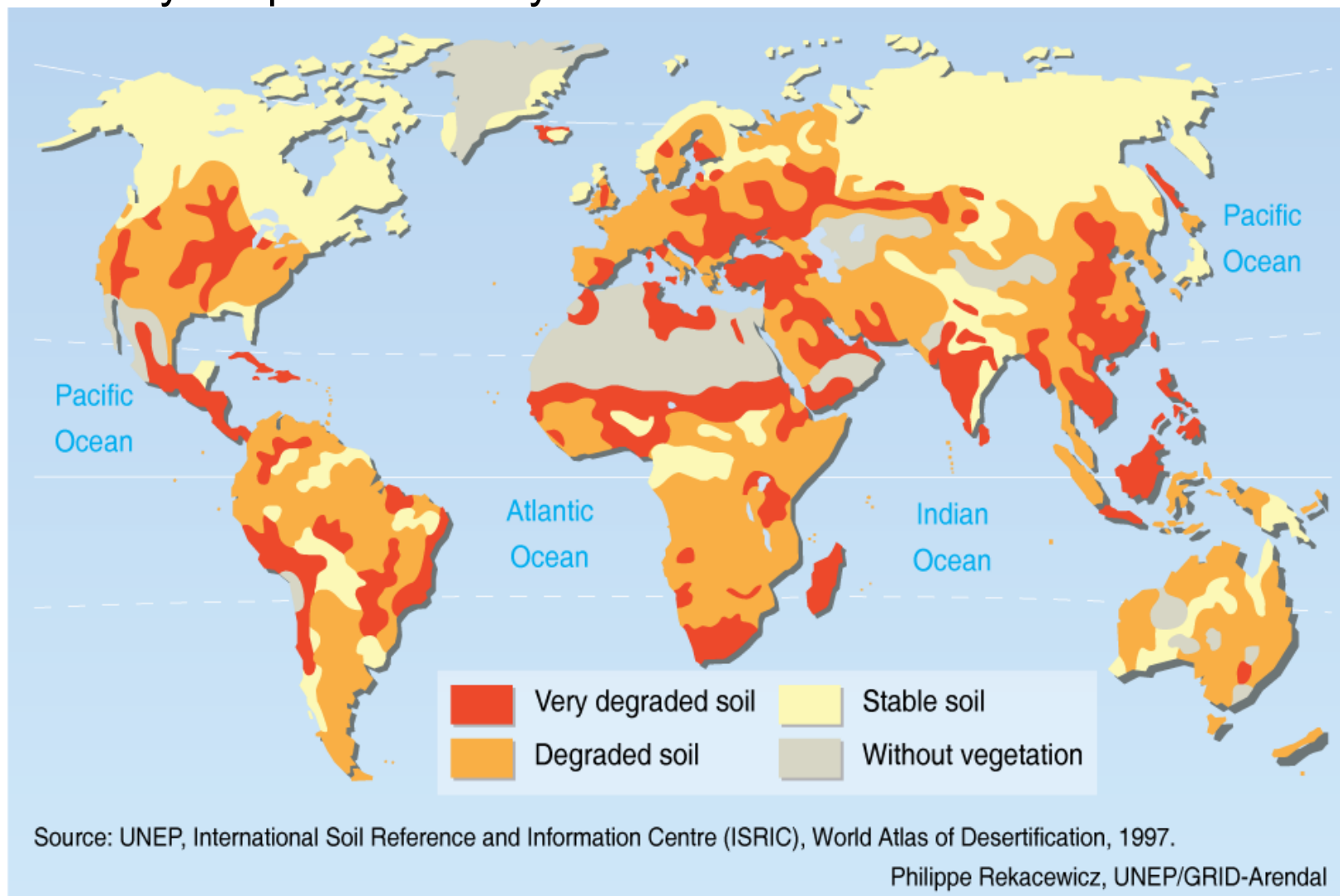
WHERE ARE THE DRYLANDS?

Drylands cover over 39.7% of the global terrestrial area where over 34% of the global population live.



LAND DEGRADATION

Not only the problem of drylands ...



PIVOTAL ROLE OF LAND



WHY DO WE CARE?

500 Million

Degraded and abandoned agricultural lands
around the world

Plus 12 million ha is degraded every year.

Intrastate conflict over land and natural resources

40%

70%

Food production needs by 2050.

30

Possible annual grain losses by increased water scarcity



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LAND DEGRADATION NEUTRALITY (LDN)



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WHAT IS LDN?

- **Achieving Neutrality:** “No net loss of land-based capital” -> Ensuring that future land degradation (losses) are counterbalanced through planned positive actions elsewhere (gains) within the same land type.

Indicators

- Trends in land cover,
- Trends in land productivity or functioning of the land, and
- Trends in carbon stocks above and below grounds with focus on soil organic

The main threats to soil

1.SOIL EROSION

2.LOSS OF SOIL ORGANIC CARBON

3.SOIL SALINIZATION/ SODIFICATION

4.LOSS OF SOIL BIODIVERSITY

5.SOIL CONTAMINATION; 6. SOIL ACIDIFICATION; 7.SOIL COMPACTION
and 8. SOIL SEALING & LAND TAKE

Source: The 2015 Status of the World's Soil Resources report

Quick Facts on Salinity

- In Australia, as in other dry land countries, one of the most significant drivers of desertification is salinization.
- Increased salinity is caused by land clearing, mainly for agricultural production, and occurs when the water table rises and brings natural salts to the surface.
- Salinity is difficult to reverse and often leads to long-term land degradation. As irrigated areas are among the most productive lands, the so-called bread baskets, salinization is undermining global food and water security
- *20% of irrigated land area suffered from crop yield reductions due to salinity*
- The World Bank estimated 20% of irrigated land area suffered from crop yield reductions due to salinity (some estimate that up to half of the irrigated land is now affected by abnormal salt levels).
- For example, salinity now affects 70-80 per cent of the Murray-Darling Basin, half the Aral Sea Basin, a third of the Nile Delta, 28 per cent of the United States, and a quarter of Pakistan and Uzbekistan.

UNCCD'S INTEREST IN THE Saline Agriculture WG

- Land Productivity:
 - How can we improve crop Production on Salt-affected Soils: by Breeding or Management?
- Soil Organic Carbon:
 - What are the options to improve crop productivity and sustainability through water and salinity management ?
 - How can we reduce soil salinity so as to decrease global soil organic carbon stocks?
- Land Cover:
 - Detecting soil salinity changes and its impact on vegetation cover are necessary to improve our understanding on the relationships between these changes on vegetation cover

UNITED NATIONS CONVENTION TO COMBAT DESERTIFICATION (UNCCD)



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An aerial photograph of a lush, green landscape. The terrain is hilly and covered in vibrant green vegetation, likely a mix of forests and agricultural fields. A small village with several buildings is visible in the lower right quadrant. The overall scene is bright and healthy, representing a well-maintained environment.

What it
is.
How it
works.

Born in 17 June 1994
(entered into force in 1996)



Objective: combat desertification at all levels in partnership

Membership 196 parties (195 countries and European Union)



THANK YOU!



Daniel Tsegai

dtsegai@unccd.int



Web: www.unccd.int

Twitter: @UNCCD



Face Book:

www.facebook.com/UNCCD



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