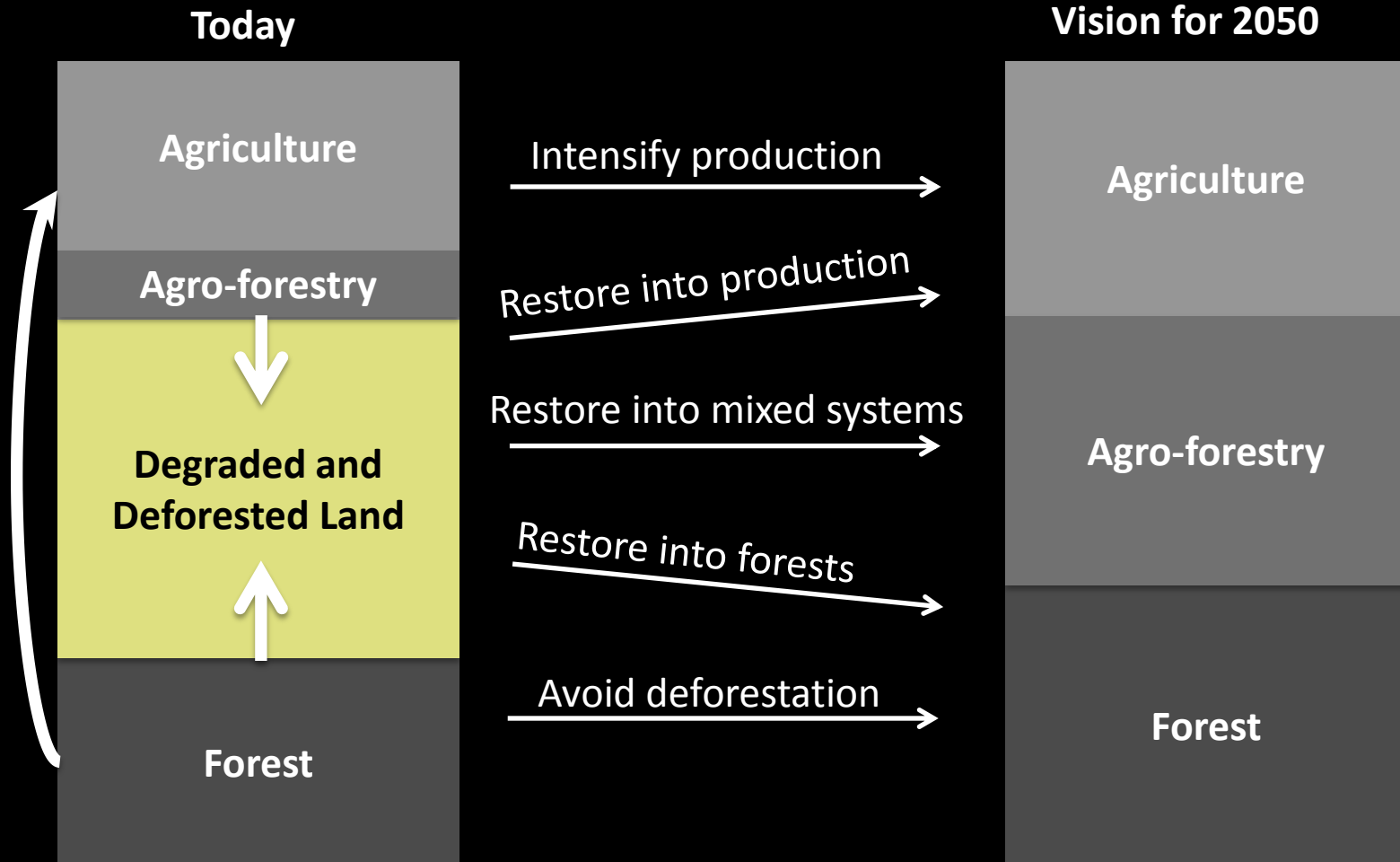




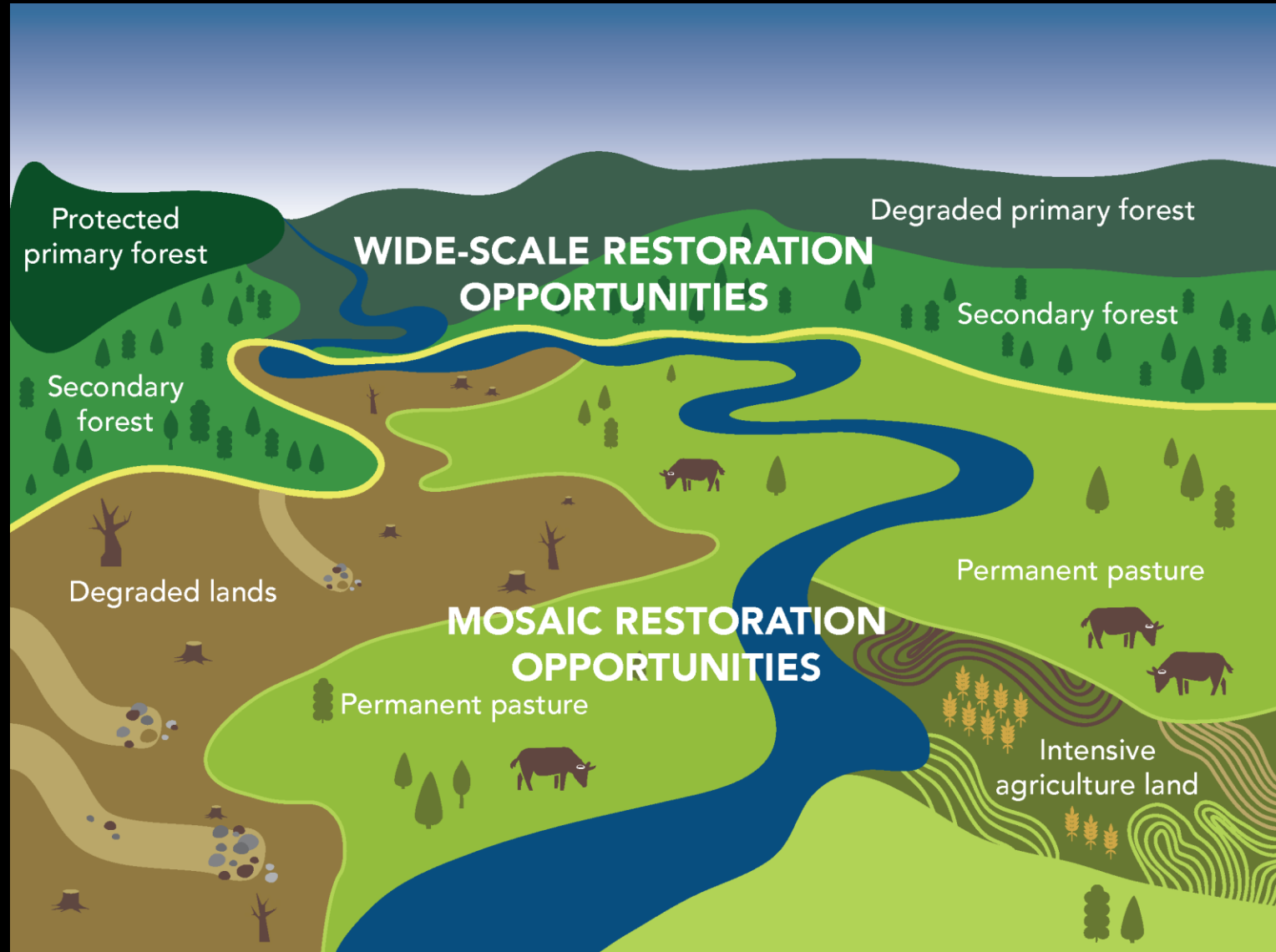
GLOBAL RESTORATION INITIATIVE

*World Resources Institute
March 2015*

OPPORTUNITY: RESTORE PRODUCTIVITY AND FUNCTION



RESTORE VITALITY AND BALANCE TO THE LANDSCAPE



A world map with a satellite-like background. Land areas are color-coded: green indicates regions with high potential for restoration, while grey and white indicate areas with lower potential or already restored land. Green areas are prominent in North America, South America, Europe, and parts of Africa and Asia. A dark grey rectangular box is positioned at the top center, containing the text 'THERE IS HOPE' in yellow. Another dark grey rectangular box is at the bottom right, containing the text '2bn hectares with opportunities for restoration' in yellow and white. The background shows the Atlantic Ocean, parts of the Pacific, and the Arctic region.

THERE IS HOPE

2bn

hectares with
opportunities for
restoration



AMBITIOUS TARGETS EXIST

The Bonn Challenge

150m

hectares under
restoration by 2020

New York Declaration

350m

hectares under
restoration by 2030

IT'S BEEN DONE BEFORE...

South Korea, 1960



South Korea, 2000



IT'S BEEN DONE BEFORE...

Niger, Pre-1990s

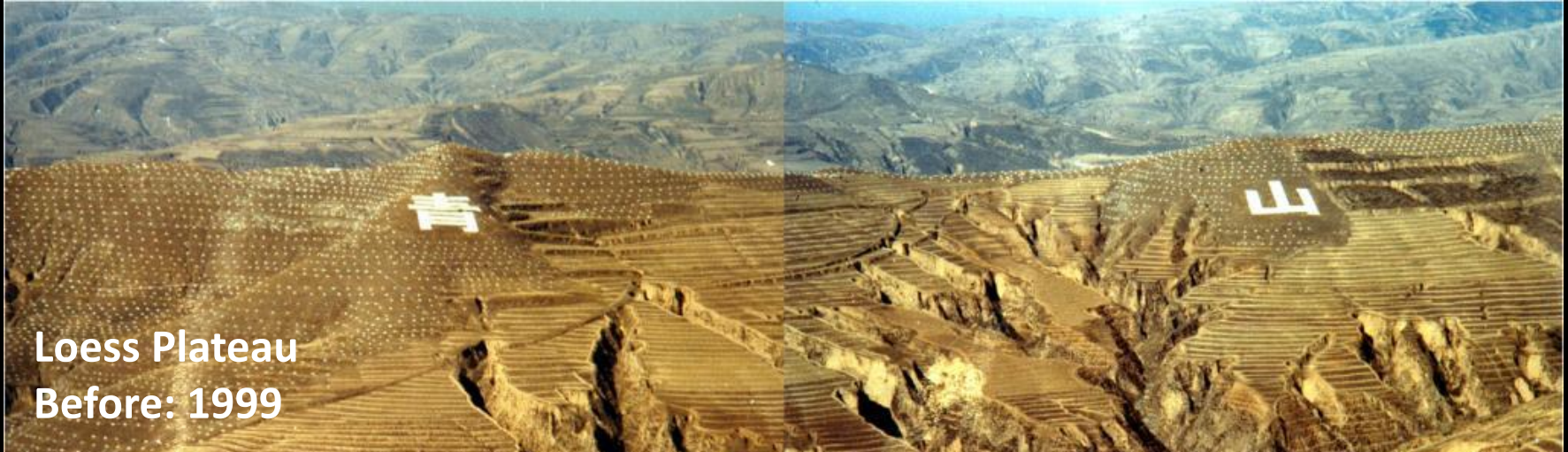


Niger, Today

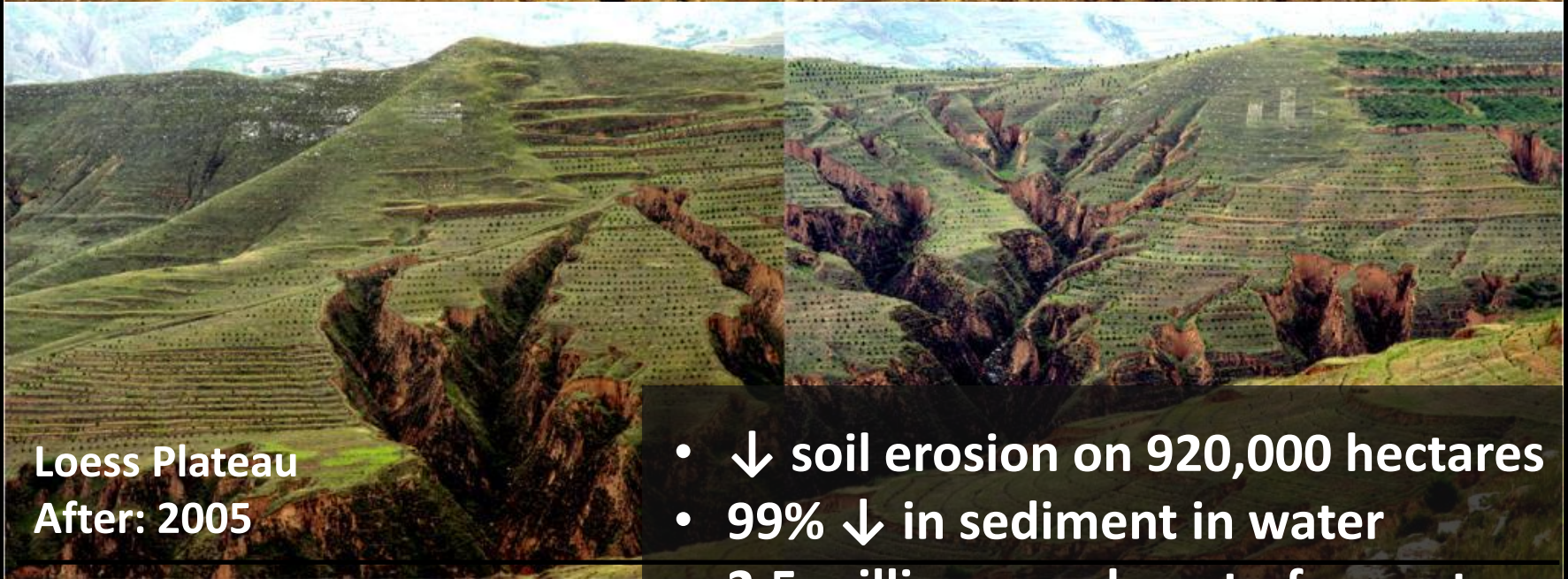


- 5 million hectares restored into agroforestry
- Improved food security for 2.5 million people

IT'S BEEN DONE BEFORE...



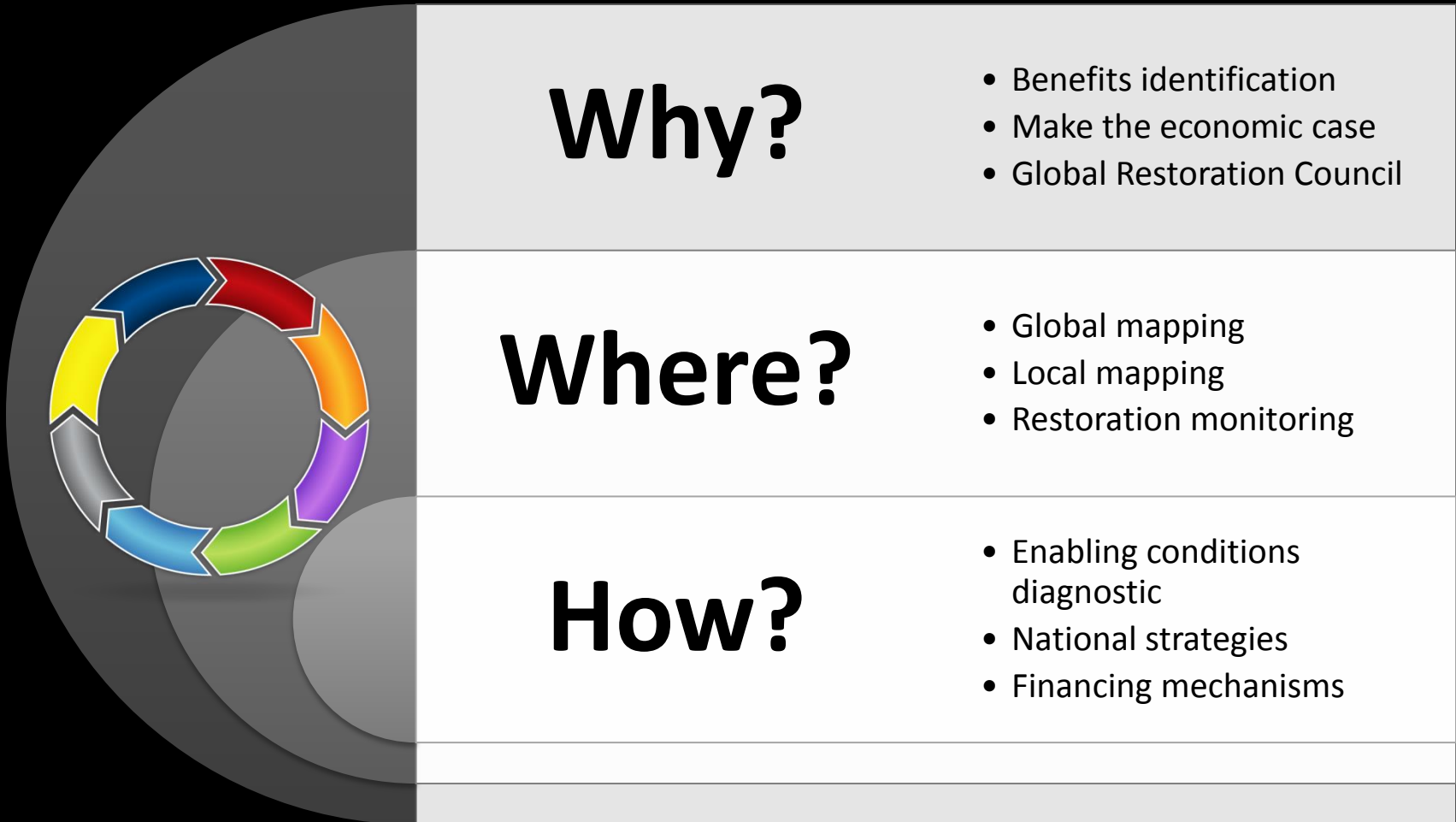
Loess Plateau
Before: 1999



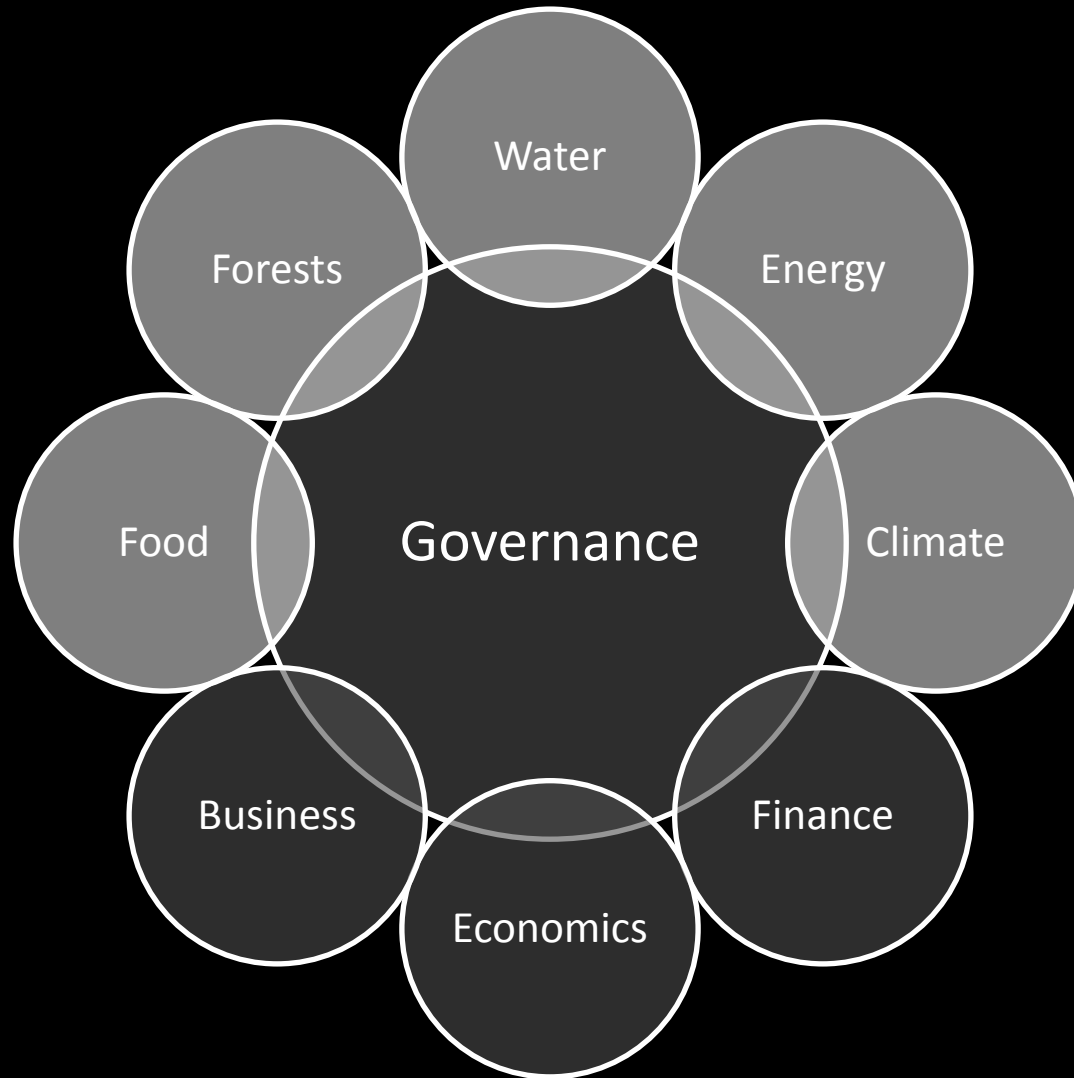
Loess Plateau
After: 2005

- ↓ soil erosion on 920,000 hectares
- 99% ↓ in sediment in water
- 2.5 million people out of poverty

WRI'S CORE OFFERS IN RESTORATION



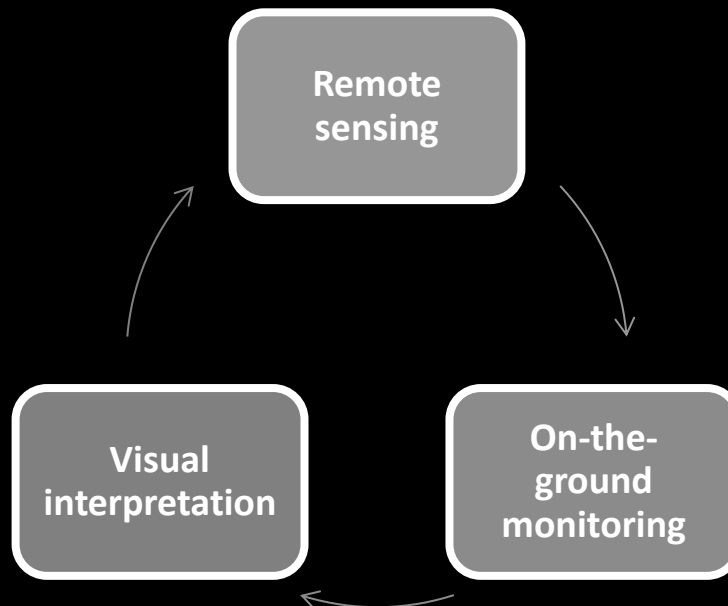
WHY? IDENTIFY BENEFITS AND MAKE THE CASE



WHERE?

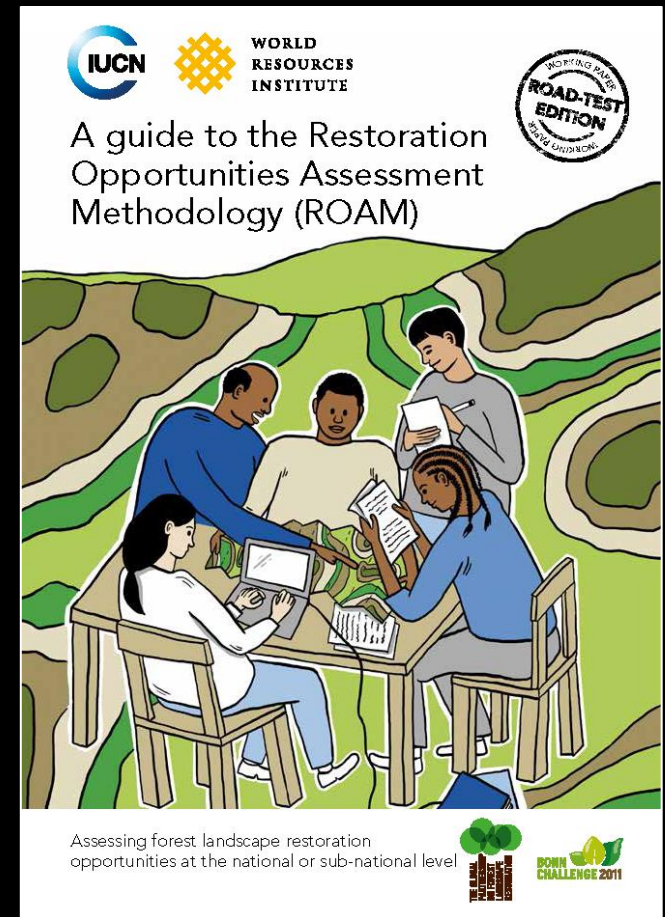
MONITORING OF RESTORATION

- “Global Baseline Project” to establish a common baseline
- Flexible monitoring system required. In-country approaches are likely to differ
- Should these approaches “roll up” into a common platform, as with Global Forest Watch for avoided deforestation?



HOW? OPPORTUNITY ASSESSMENT

- How to “package” opportunities
 - Restoration Opportunities Assessment Methodology (ROAM)
 1. *Stakeholder input*
 2. *Geospatial mapping*
 3. *Economic analysis*
 4. *Carbon analysis*
 5. *Enabling conditions*
 6. *Financial analysis*



GEOGRAPHIES: WRI AND IUCN (AS GPFLR) SUPPORTING RESTORATION IN 23 COUNTRIES



Brazil	Costa Rica	Ghana	Indonesia	Niger	Uganda
Chile	Ecuador	Guatemala	Kenya	Panama	U.S.A.
China	El Salvador	Honduras	Malawi	Peru	Vietnam
Colombia	Ethiopia	India	Mexico	Rwanda	

AFRICA



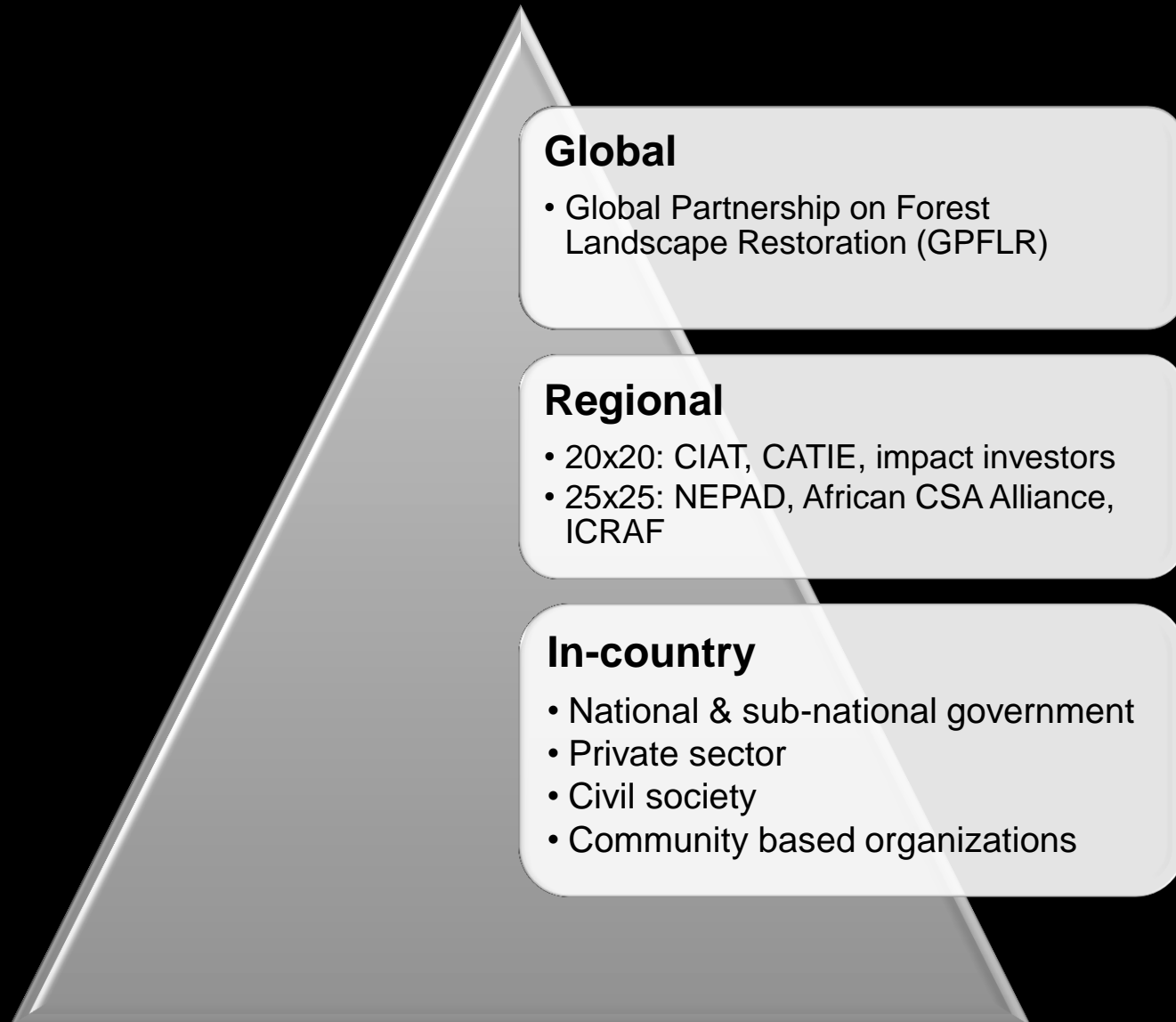
- **Vision 25x25:** 25 million small holder farmers restore land by 2025
- **Implementation of ROAM** (*Restoration Opportunity Assessment Methodology*)
 1. Geospatial mapping
 2. Economic benefits
 3. Carbon benefits
 4. Enabling conditions
 5. Financing
 6. Monitoring

Ethiopia
Kenya

Malawi
Niger

Rwanda
Uganda

PARTNERSHIPS ARE ESSENTIAL AT EACH LEVEL OF SCALE



Restoration Project Monitoring-More of M&E

- Biophysical
 - Vegetation
 - Soil
 - Water/hydrology
- Socioeconomic
 - Livelihood impacts
- Institutional
 - Technical
 - Leadership
 - Financial

Collect Earth-Biophysical

- Vegetation
 - Tree counting
 - Canopy cover
 - Physical features
- Preparation
 - QGIS- set the sampling grid
 - Collect Earth-do data entry
 - Google Earth Engine-do the analysis

RESTORATION MONITORING-COLLECT EARTH

The screenshot displays the Openforis Collect Earth application interface. The central part of the screen shows a satellite map of a desert landscape. On the left side, there is a sidebar with a search bar, a list of places, and a layers panel. The 'Places' list contains 27 entries, each with a checkbox and a red exclamation mark icon. The 'Layers' panel shows various map layers like 'Primary Database', 'Borders and Labels', 'Places', 'Photos', 'Roads', '3D Buildings', 'Ocean', 'Weather', 'Gallery', 'Global Awareness', and 'More'. On the right side, there is a data entry panel for a specific place (ID: 56788). This panel includes fields for 'Land use category' (Forest, Grassland, Cropland, Wetland, Settlement, Other, No Data), 'Land use sub-category' (F > F, C > F, G > F, W > F, S > F, O > F), and 'Land use sub-division' (Sahara Regional Transition Zone, Oases, Wadis, Bushland and thicket). The panel also shows accuracy and year information.

Search

ex: 37.407229, -122.107162

Get Directions History

▼ Places

- 14 - ID#: 56786
- 15 - ID#: 56787
- 16 - ID#: 56788
- 17 - ID#: 56789
- 18 - ID#: 56790
- 19 - ID#: 56791
- 20 - ID#: 56792
- 21 - ID#: 56793
- 22 - ID#: 56794
- 23 - ID#: 56795
- 24 - ID#: 58387
- 25 - ID#: 58388
- 26 - ID#: 58389
- 27 - ID#: 58390

▼ Layers

Earth Gallery >>

- Primary Database
- Borders and Labels
- Places
- Photos
- Roads
- 3D Buildings
- Ocean
- Weather
- Gallery
- Global Awareness
- More

ID: 56788 - Elevation: 0m, Aspect: 0°, Slope: 0°

Land use category

Forest Grassland Cropland

Wetland Settlement Other

No Data Accuracy YES NO

Land use sub-category

F > F C > F Accuracy YES NO

G > F W > F Year N/A

S > F O > F

Land use sub-division

Sahara Regional Transition Zone

Oases Wadis

Bushland and thicket

Image © 2015 CNES

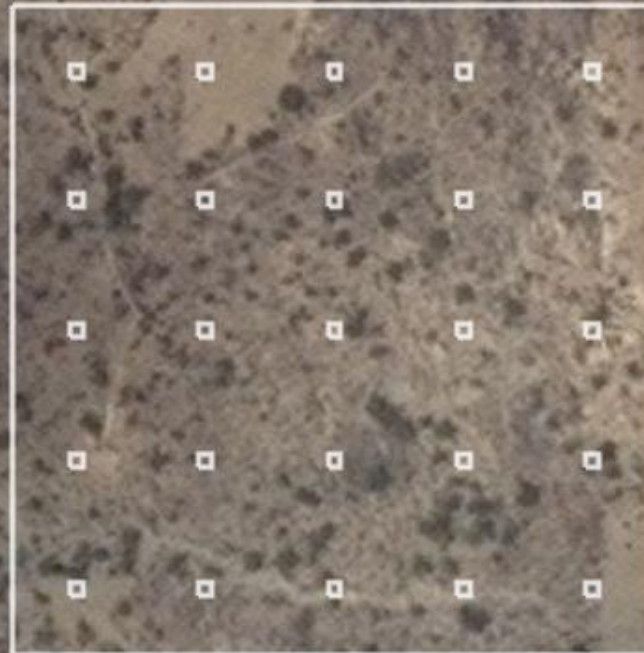
92 m

Tour Guide 2004

Imagery Date: 1/3/2014 37 P 557071.30 m E 1619681.79 m N elev 2500 m

RESTORATION MONITORING-COLLECT EARTH

⊖ ⊕ | Bird's eye ▾



Imagery acquisition dates

x

First Image 17 Jul 2012 GMT
Last Image 17 Jul 2012 GMT