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Initiative 20x20

A country-led effort to initiate restoration of 20 Mha in Latin America by 2020

WALTER VERGARA, WVERGARA@WRI.ORG

Context in Latin America

58% of annual GHG emissions in LAC from land use and land use change

50% of non large urban area employment in LAC tied to agriculture and forestry

13% of global food and fiber trade from LAC

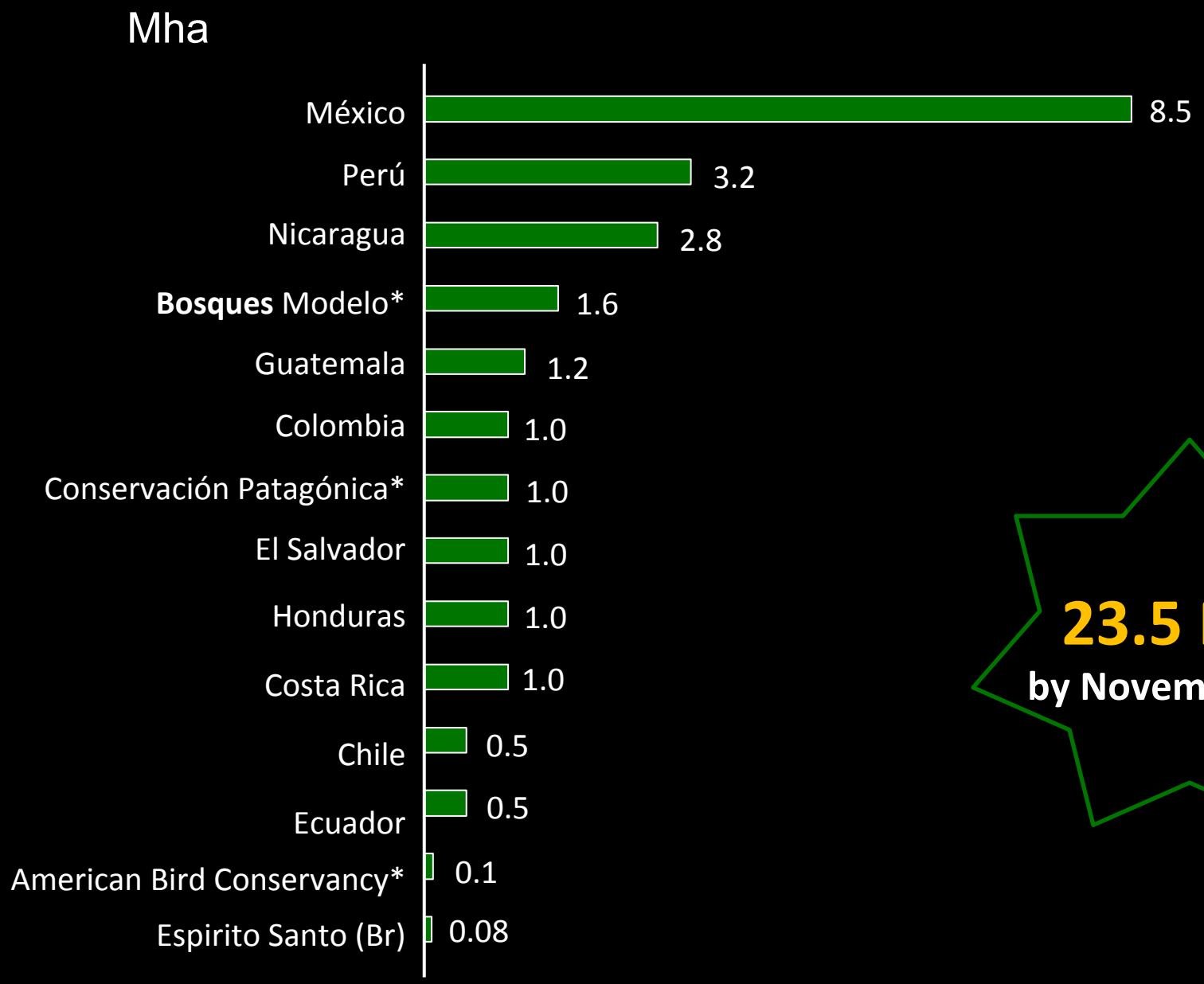
37 Mha of forests and grasslands converted to agriculture in LAC since 2000

350 Mha of lost or degraded forest landscapes (half the landmass of Australia

200 Mha with the potential to be restored into healthy landscapes

Sources: World Bank, FAOSTAT, GFW, Atlas of Forest and Landscape Restoration Opportunities, WRI

1. Initiative 20x20 ambitions to date



23.5 Mha
by November 2015

* Programas regionales

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2. KEY THEMES FOR TECHNICAL ASSISTANCE

- Robust monitoring system
- Supportive incentive system
- Reliable long term supply of germ plasm
- Accessible information on restoration technologies
- Assessment of financial and economic returns
- Improved investment readiness

3. Secure financing

Private sector equity ($0.7 billion)

Debt finance (5X equity)

Partial Risk Guarantee ($115 million) and Capitalization Fund

Investment Readiness Fund ($10 million)

ecoplanet bamboo

althelia ecosphere

PERMIAN GLOBAL

Forestry and Climate Change Sub-Fund

rare

Terra GLOBAL CAPITAL

SLM Partners in Sustainable Land Management

IDB Inter-American Development Bank

CAF DEVELOPMENT BANK OF LATIN AMERICA

WORLD BANK GROUP

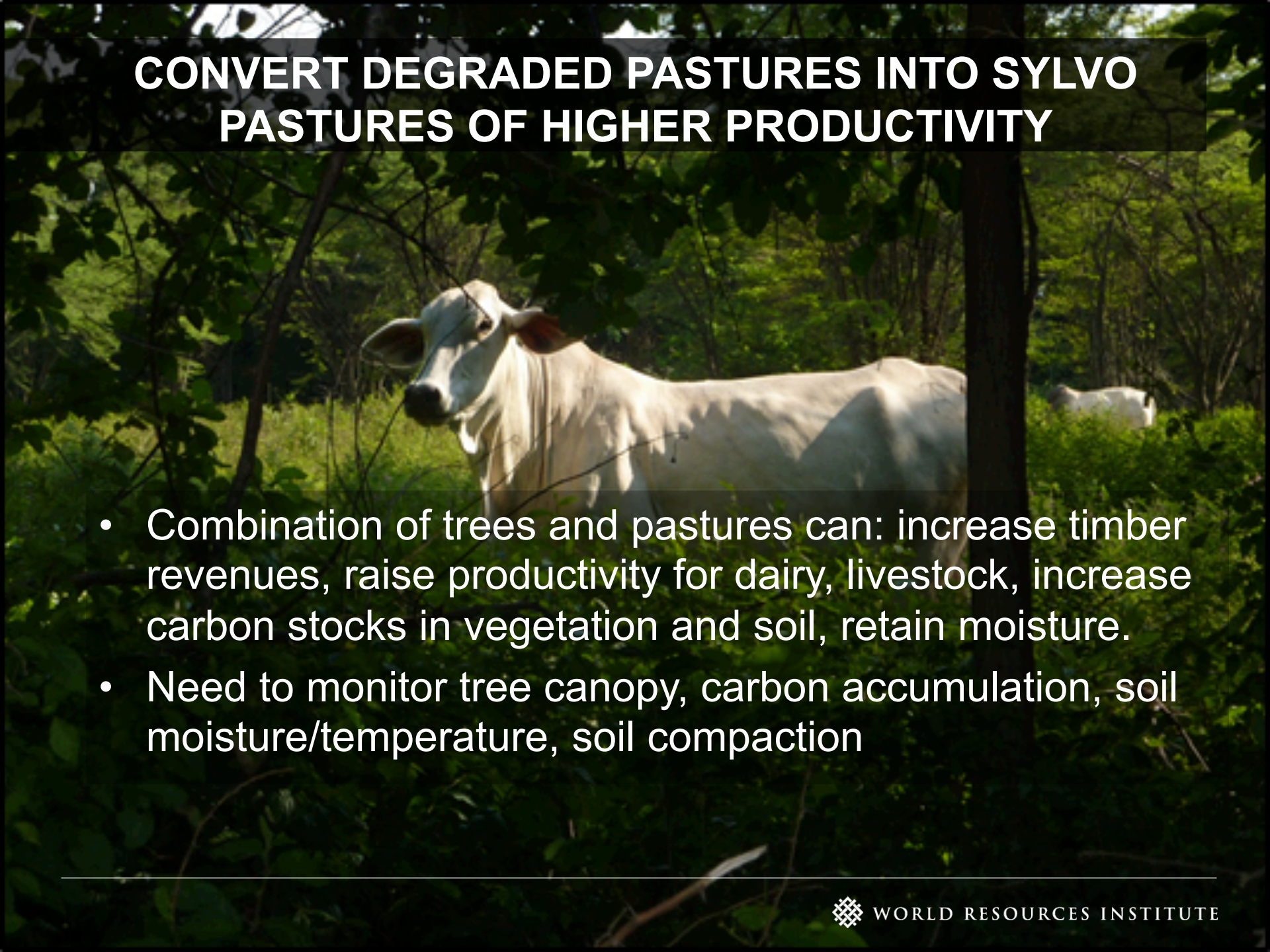
gef

GREEN CLIMATE FUND

SHIFT MONOCULTURE MARGINAL CROPLAND TO AGROFORESTRY

- Agroforestry can create timber revenues, raise productivity through higher yields and diversification. It can retain moisture, control temperatures, increase carbon stocks in vegetation and soil.
- Need to measure: gains in canopy, carbon accumulation, soil temperature and moisture

CONVERT DEGRADED PASTURES INTO SYLVO PASTURES OF HIGHER PRODUCTIVITY



- Combination of trees and pastures can: increase timber revenues, raise productivity for dairy, livestock, increase carbon stocks in vegetation and soil, retain moisture.
- Need to monitor tree canopy, carbon accumulation, soil moisture/temperature, soil compaction

REFOREST BARE LAND AND DEGRADED FORESTS

- Multi species reforestation can increase carbon stocks, support recovery of biodiversity, retain soil and recover lost hydrology.
- Need to monitor gains in canopy, carbon accumulation, soil temperature, and moisture; biodiversity

ENRICH SECONDARY FOREST AND PROMOTE ASSISTED NATURAL REFORESTATION

- Enrichment and assisted natural reforestation can promote ecological recovery at low cost.
- Need to monitor diverse canopy recovery, carbon stocks in vegetation and soil, soil temperature and moisture, biodiversity.

RECOVER STRIPPED-MINED AREAS

- Recovery is intended to return vegetation, manage toxicity, achieve some degree of ecological restoration.
- Need to monitor carbon stocks in vegetation and soil, accumulation and leachate of heavy metals

PROJECTS IN THE MAKING

- 100,000 ha grassland recovery project in Patagonia (Chile)
- 10,000 ha agroforestry project in Nicaragua
- 30,000 ha agroforestry project in amazon region in Peru
- 100,000 ha silvo pasture proposal in Colombia
- 1.4 million ha proposal for forestry recovery and avoided deforestation in Colombia
- 160,000 ha goal for protection and recovery of migratory birds habitat

CMS -- 20X20: CAN THIS BE A MATCH MADE IN HEAVEN ?

- Morton 01: projects in Peru and Brasil
  - Lidar biomass models
- Walker-01: projects in Mexico
  - Carbon density maps
- Kellndorfer 03: projects in Peru, Colombia and Mexico
  - Forest carbon fluxes
- Houghton 02: neo tropics
  - Net carbon fluxes

COULD WE USE CHLOROPHYLL FLUORESCENCE?

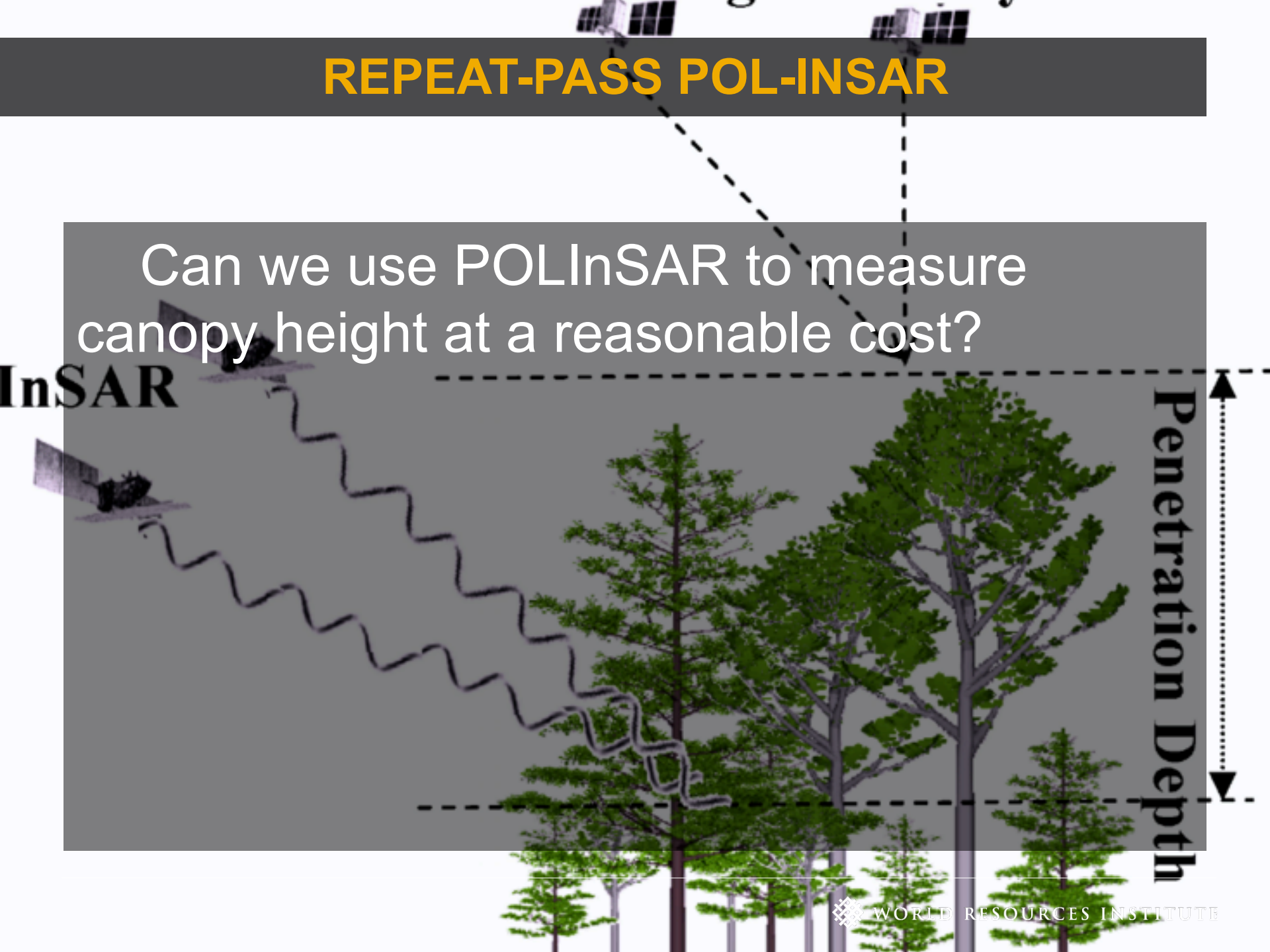
- Spectrometers aboard climate satellites can detect fluorescence coming from croplands and forest canopies
- Track the changes in plant growth in real time from space?.
- Can we expect improvements in resolution that would allow project-size application?

CAN WE USE UAVSAR TO MONITOR CHANGE IN VEGETATION COVER?

- Is 1 m resolution of vegetation cover possible for applications in agriculture and forestry?
- Could UAVSAR (POLSAR) be deployed for 10**3 Ha applications?

REPEAT-PASS POL-INSAR

Can we use POLInSAR to measure canopy height at a reasonable cost?



SUPPORT GLOBAL AMBITION

BONN CHALLENGE

New York Declaration on Forests

FOCUS SUPPORT

CATIE – Solutions for environment and development / Soluciones para el ambiente y desarrollo

UICN

CIAT

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INSTITUTO HUMBOLDT COLOMBIA

World Agroforestry Centre

FUNDACION AGRESTE

Bioversity International

SNV

Fundação Amazonas Sustentável

NASA

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GREEN CLIMATE FUND

Argentina
Chile
Colombia
Costa Rica

Ecuador
El Salvador
Guatemala
Honduras

Mexico
Nicaragua
Peru
Espirito Santo – Brazil
São Paulo - Brazil

ACHIEVE COUNTRY AMBITIONS