



PERÚ

Ministerio
del Ambiente

EXTENSION AND OPPORTUNITY FOR BLUE CARBON IN PERU





Oscar Lazo (Ministry of Environment, Peru)

Augusto Castro (ONF Andina, Bogota)



www.minam.gob.pe

Wetlands in Peru

Descripción	Símbolo	Superficie (ha)	%
Lagos, lagunas y cochas		944 134	11.88
Bofedales		549 156	6.91
Aguañales y pantanos		6 447 728	81.06
Humedales costeros		12 173	0.15
Total		7 953 191	100

Generals

54,6% of the Peruvian Population lives in coastal areas.

Coastal area is the 11,4% of the Peruvian territory

Some Examples

Mangroves of Tumbes - TUMBES



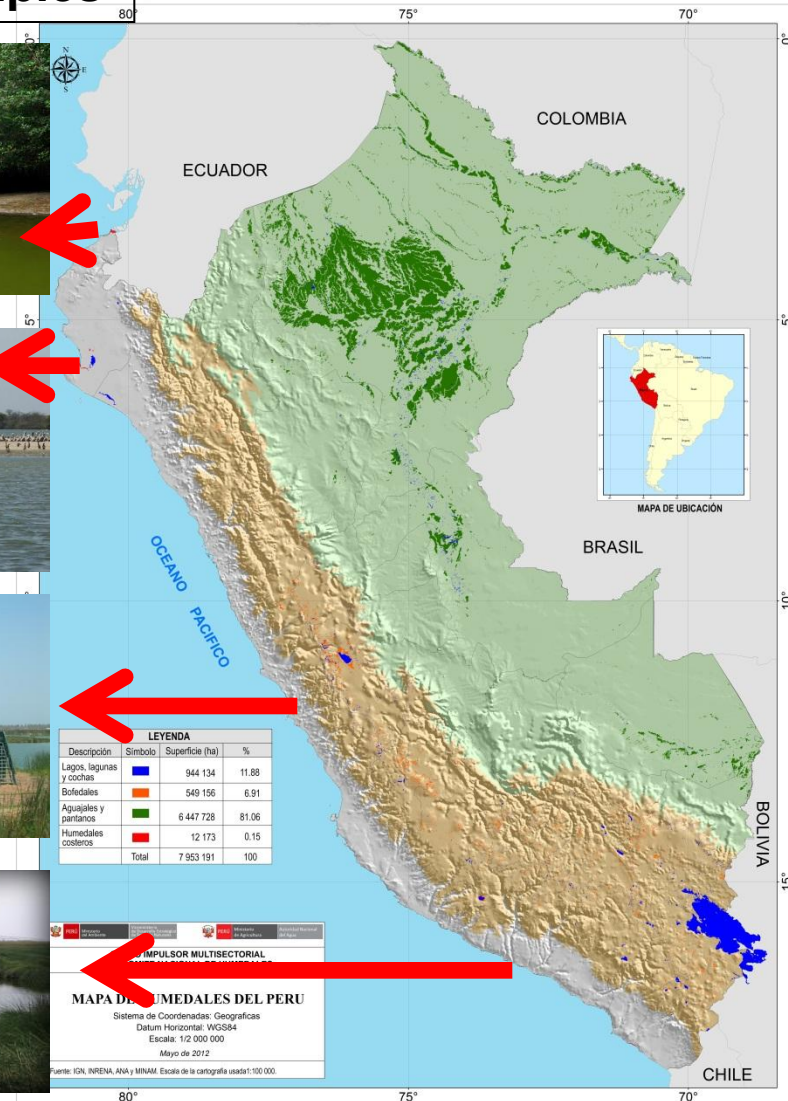
Mangroves of San de Pedro - PIURA



Swamps of Villa - LIMA



Lakes of Mejia - Arequipa



RAMSAR Sites

Cuadro Nº 1 // Sitios Ramsar considerados para Perú

Nº	Sitio Ramsar		Fecha de creación	Departamento	Extensión (Ha)		Ubicación (UTM)
1	Bofedales y Laguna de Salinas		28/10/2003	Arequipa	17,657		16°22'S 071°08'W
2	Complejo de humedales del Abanico del río Pastaza		05/06/2002	Loreto	3,827,329		04°00'S 075°25'W
3	Humedal Lucre – Huacarpay		23/09/2006	Cusco	1,979		13°37'S 071°44'W
4	Lago Titicaca (Sector Peruano)		20/01/1997	Puno	460		15°50'S 069°30'W
5	Laguna del Indio – Dique de los Españoles		28/10/2003	Arequipa	502		15°46'S 071°03'W
6	Lagunas Las Arreviatadas		15/07/2007	Cajamarca	1,25		05°14'S 079°17'W
7	Manglares de San Pedro de Vice	←	12/06/2008	Sechura	1,399	←	05°31'N 080°53'W
8	Reserva Nacional Pacaya Samiria		30/03/1992	Loreto	2,080,000		05°15'S 074°40'W
9	Reserva Nacional de Paracas	←	30/03/1992	Ica	335	←	13°55'S 076°15'W
10	Reserva Nacional de Junín		20/01/1997	Junín y Pasco	53		11°00'S 076°08'W
11	Santuario Nacional Lagunas de Mejía	←	30/03/1992	Arequipa	691	←	17°08'S 071°51'W
12	Santuario Nacional Los Manglares de Tumbes	←	20/01/1997	Tumbes	2,972	←	03°25'S 080°17'W
13	Refugio de Vida Silvestre Pantanos de Villa	←	20/01/1997	Lima	263	←	12°12'S 076°59'W

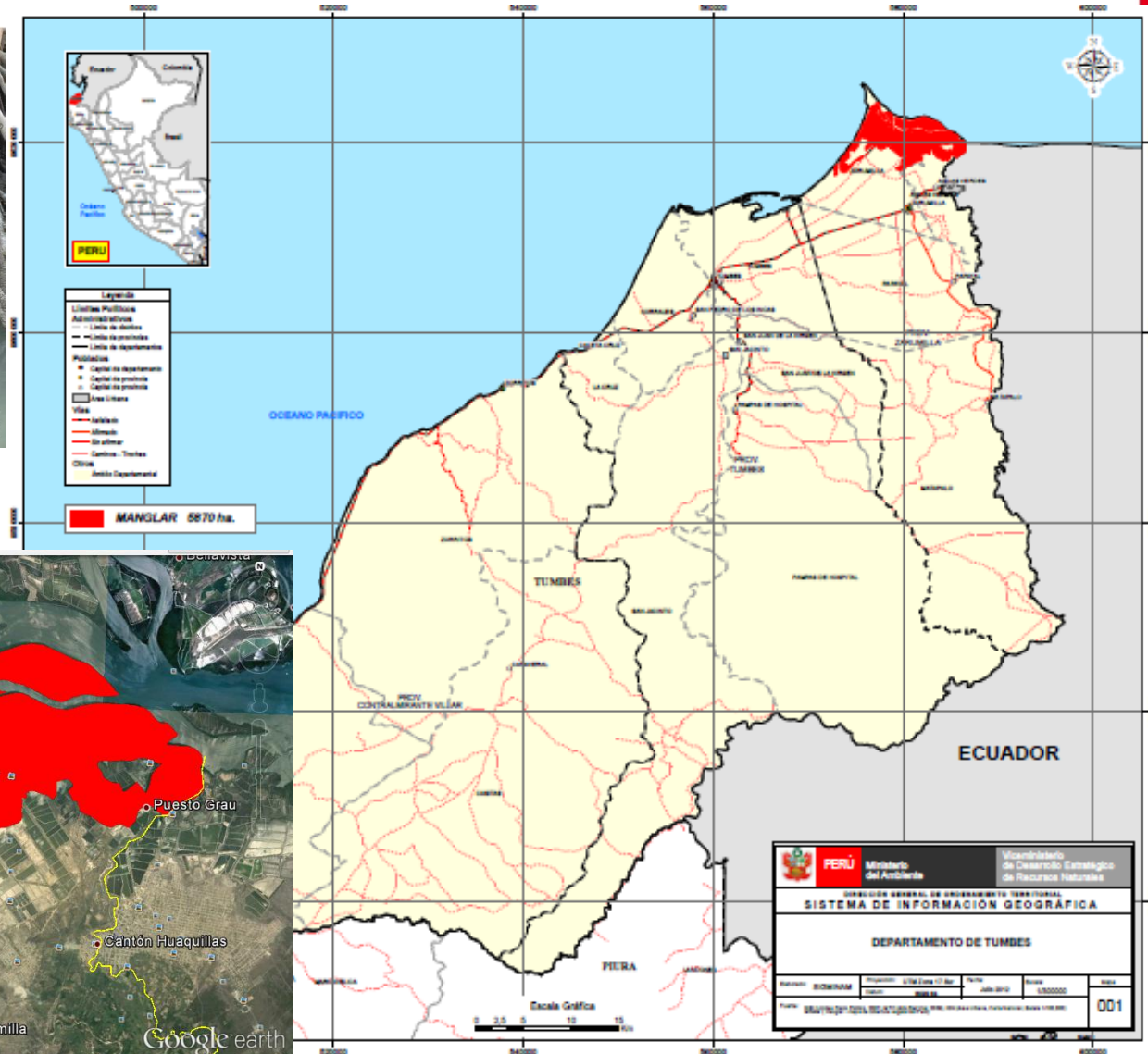
Mangroves of Tumbes



Extracción de conchas negras
(Foto: <http://desarrollenparaiso.blogspot.com>)



MANGLAR 5870 ha.



Project “Impact of the variability and climate change in mangrove ecosystems in Tumbes”

- The Peruvian Geophysics Institute is leading the initiative.
- 16 research thesis.
- IDRC is funding the initiative.

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GO INSTITUTO GEOFÍSICO DEL PERÚ

Proyecto “Impacto de la variabilidad y cambio climático en el ecosistema de manglares de Tumbes”

Ken Takahashi, Ph.D.
Instituto Geofísico del Perú

SERNANP SNLMT

MEPA CGSNLMT

Ministerio del Ambiente

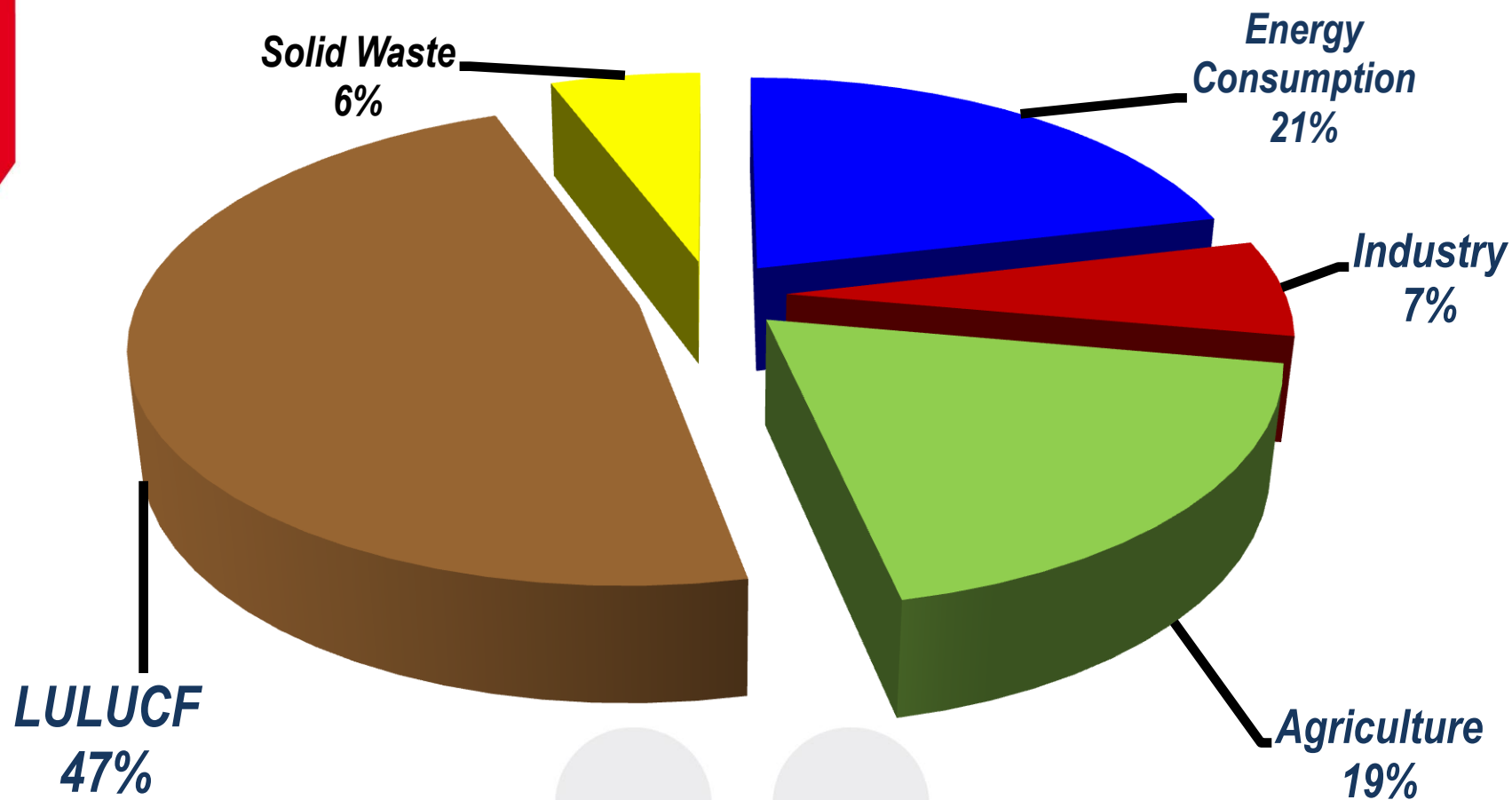
Financiamiento:
IDRC CRDI

Taller de Inicio de Proyecto, Tumbes
1 de marzo, 2012

<https://sites.google.com/site/manglaresigp/>

- The land Planning in Peru is based on the Ecological and Economic Zoning (EEZ).
- EEZ process completed: Callao Regional Government.
- An Ecological and Economic unit called: Ventanilla Wetland. This unit covers a geographical area of 495.5 hectares.
- Regional Conservation Area “wetlands of Ventanilla”

GHG Inventory - 2000



Where Blue Carbon initiatives could be included?

- National and regional Climate Change Strategies: Adaptation and mitigation (?)
- Clean Development Mechanism (?)
- Proposed National Appropriated Mitigation Actions (?)
- REDD+ (?)



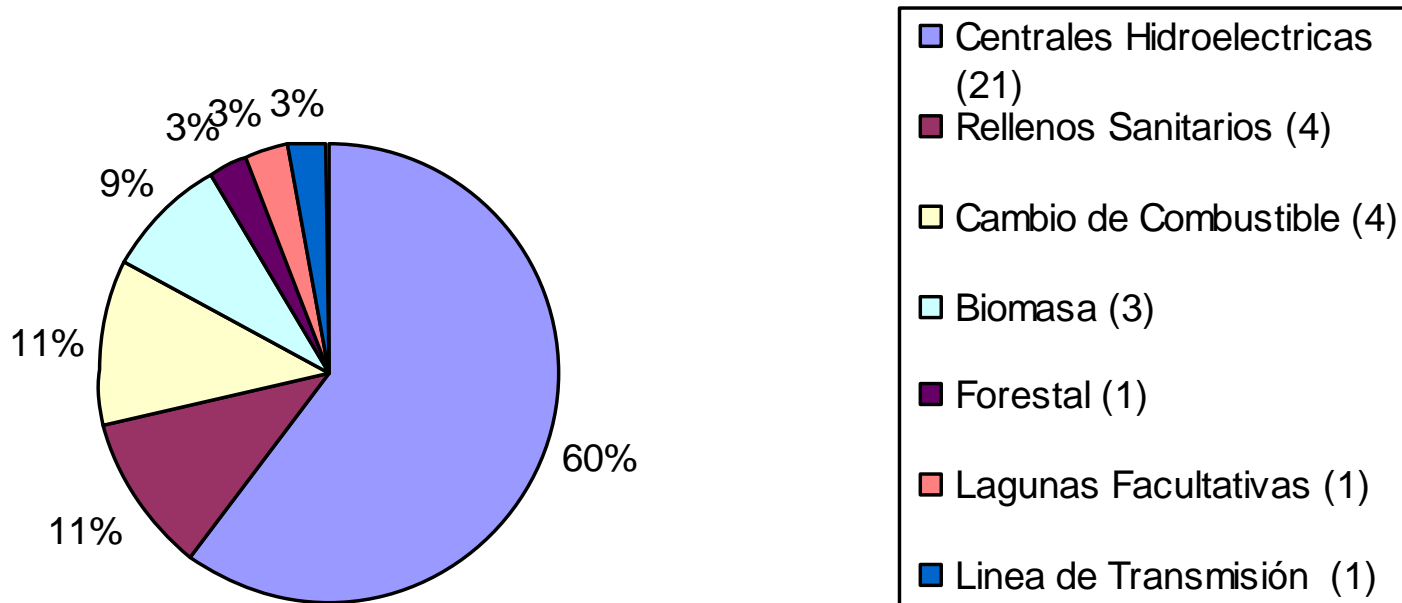
Blue Carbon inside the National Climate Change Strategy

- Under construction: Possibility to include Blue Carbon as carbon sink (objective 02).
- Capacity building for climate change adaptation
- Include stakeholders (PRODUCE, IMARPE, MINAM, Academia, local population)



Opportunities in CDM

Projects by sector



(MINAM, 2010)

Mitigation actions in Peru

Voluntary mitigation targets for 2021

1. Zero net emissions in LULUCF sector

Baseline: annual deforestation 150,000 ha (1990-2000) - 53 MT CO₂eq;
Conservation of 54 million Ha of primary forests

2. Energy matrix with up to 40% from renewable sources

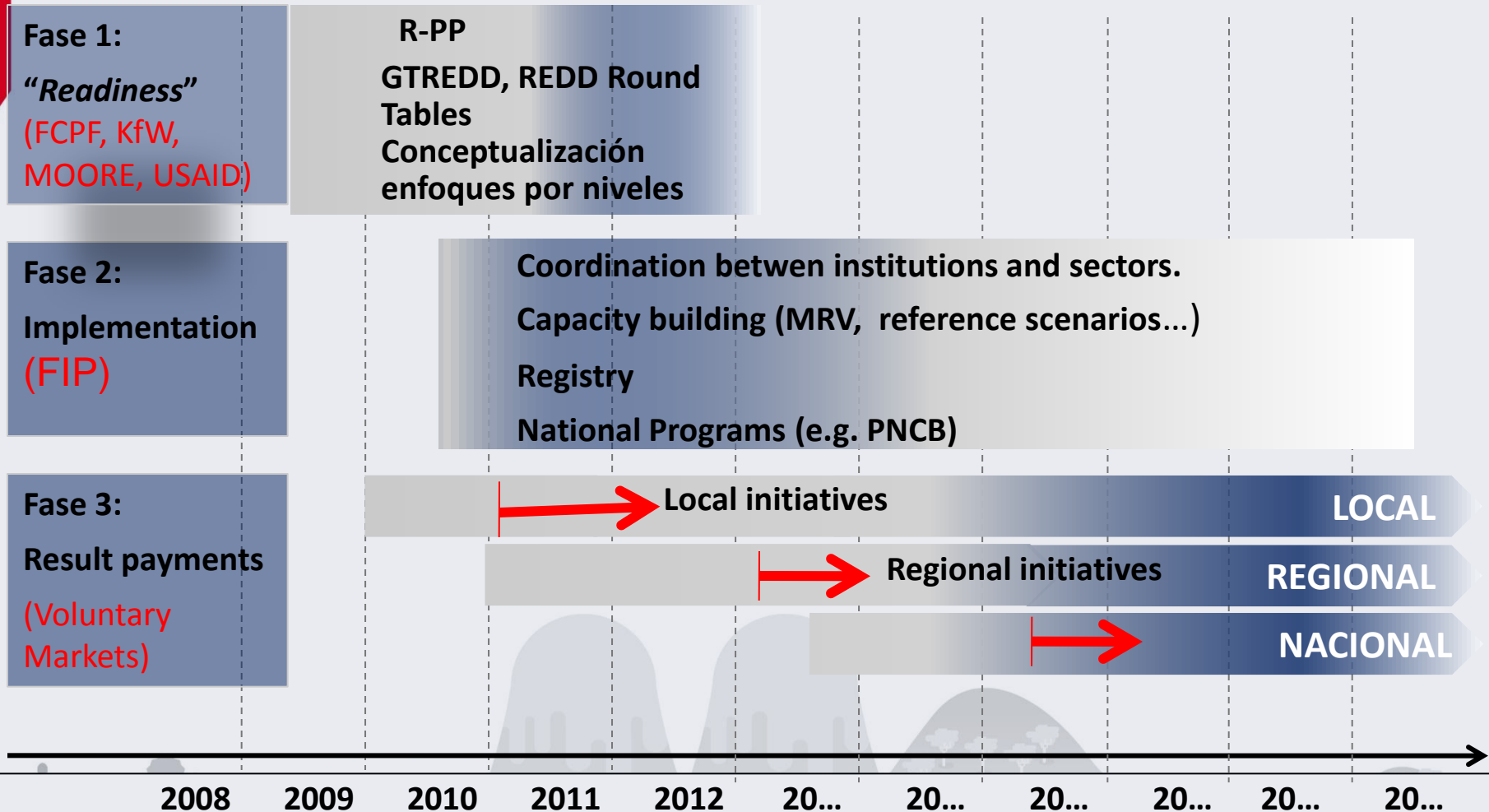
Mix of efficiency and renewable, including hydropower; biomass; eolic; solar;
about 28% reduction as compared to 2000; potential reduction 7 MT CO₂eq

3. Reduction of emissions from urban solid waste disposal

Country-wide program; priority in landfills for medium and large cities
potential reduction of 7 MT CO₂eq

(MINAM, 2010)

REDD+ in Peru



(Pedroni, 2011)

Opportunities for national Blue Carbon policy development and implementation

- National Climate Change Strategy is being updated: this includes adaptation and mitigation strategies.
- NAMAs are still under development.
- REDD+ Readiness Phase is starting
- Regional environmental services (REDD+) round tables could promote Blue carbon efforts.
- Environmental Services Law (under development)
- Consultation Law (approved on 2012)
- Land use planning process underway
- Ministry of Economy and Finance is interested in Climate Change opportunities.

Challenges for national Blue Carbon implementation

- **Social economic issues:**

marginality; extreme poverty; interculturality; behavioral inertia; diverse and fragile ecosystems; priorities in national investments; growth pattern in front of low carbon goals.

- **Quantifying emissions and removals:**

methodological issues; capacity building; MRV; roles.



Challenges for national Blue Carbon implementation

- **In-country institutional arrangements:**

Information systems; intersectoral and interregional governance; priorities and political internalization.

- **NAMA definition, external support and costs calculation:**

Finance and means of implementation in NAMAs; priorities and timing for investments; planning curves of abatement.



Thinking as a Researcher...

- How many carbon is storage in Peruvian coastal marine ecosystems?
- What threats coastal marine ecosystems?
- How much would cost to implement blue carbon initiatives?
- Carbon markets are de best economic mechanism to promote coastal marine ecosystems conservation?
- Is there any mitigation potential in seaweeds and Plankton? is it possible to include them in any climate change mitigation mechanism?



Thinking as a former Peruvian representative in climate change negotiations...

- What is blue carbon?
- Why do we need a new concept?
- Who is behind it?
- What are the interests around this new concept?
- Is somebody trying to distract us?
- Where can I find understandable information about this new concept?
- We have enough difficult inside REDD+, why do we need to complicate it more?



Possible next steps

- To design an action plan with all the stakeholders (PRODUCE, IMARPE, MINAM, Universities, local stakeholders).
- To involve private sector.
- To promote the interest of local populations.
- To promote relevant research initiatives and/or include the topic in ongoing research initiatives.
- Translate research outputs.



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Oscar Lazo

Coastal and marine zones specialist

Ministry of Environment - Peru

olazo@minam.gob.pe

Augusto Castro

Expert on Forest and CC – ONF Andina

PhD Student – McGill University

acastro@onfandina.com / augusto.castro@mail.mcgill.ca

Muchas Gracias!!



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