

# Analytical work to support the development of of policy options for mid-and long-term mitigation objectives in Perú

Febreruary 2016



#### Perú's INDCs

Voluntary, technically validated and with political support for its implementation



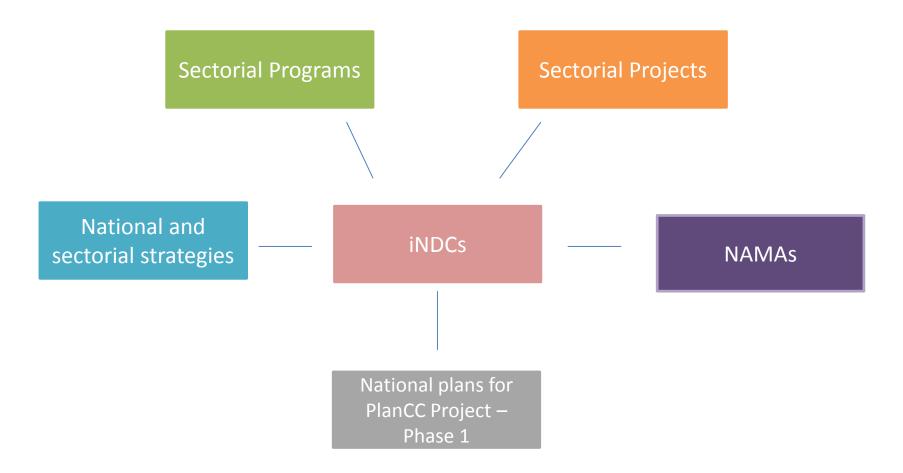
#### Strategy



- 1. Participatory work including other sectors.
- 2. Build upon what's been advanced and planned.
- 3. Adopt the contribution at a techinical and political level.
- 4. Create a Long Term Action Plan (implement and control the iNDC)

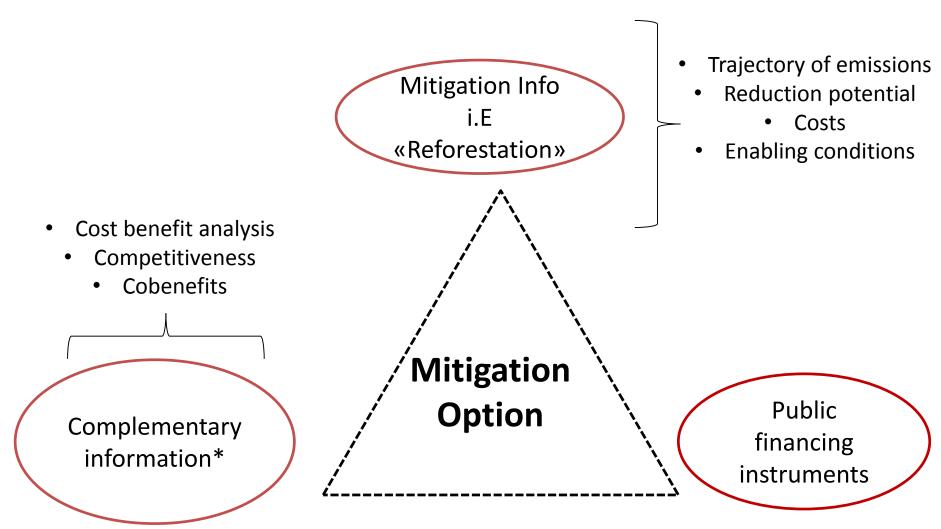


#### Input: Where do we get the ideas?





#### Input (II): On the ground





#### **INDCs analitical work: PMR Objective**

Contribute to generate quantitative information on the possible implications (Costs and cobenefits) of the implementation of the mitigations options considered in the formulation of Perú's iNDCs.

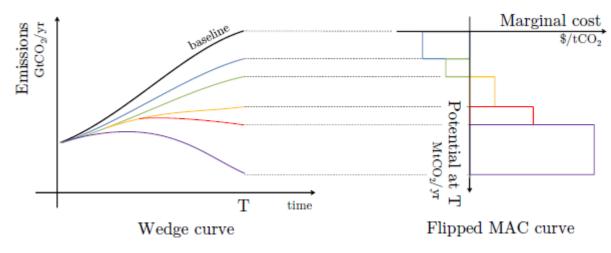


#### Scope of analysis

- ☐ Build emission-reduction pathways from the list of GHG mitigation options
- ☐ Quantify the investment needed and identify financing opportunities
- ☐ Assess the macro-economic implications of the emission reduction pathways' implementation



## Build emission-reduction pathways from the list of GHG mitigation options: Maccinert

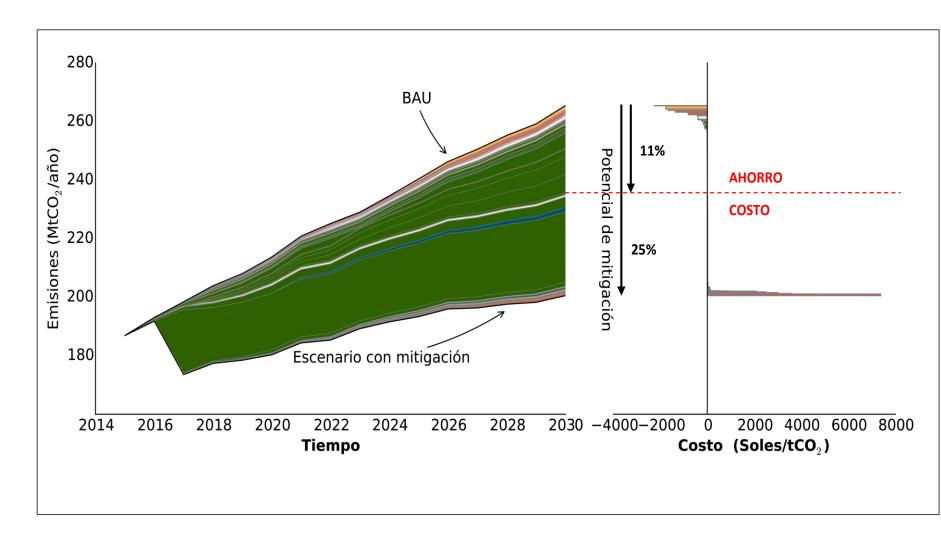


Source: Vogt-Schilb et al (2014)

Aim: seek both quantity and quality of abatement, by combining a "synergy approach" that focuses on the cheapest mitigation options and maximizes cobenefits, and an "urgency approach" that starts from a long-term objective and works backward to identify actions that need to be implemented early.

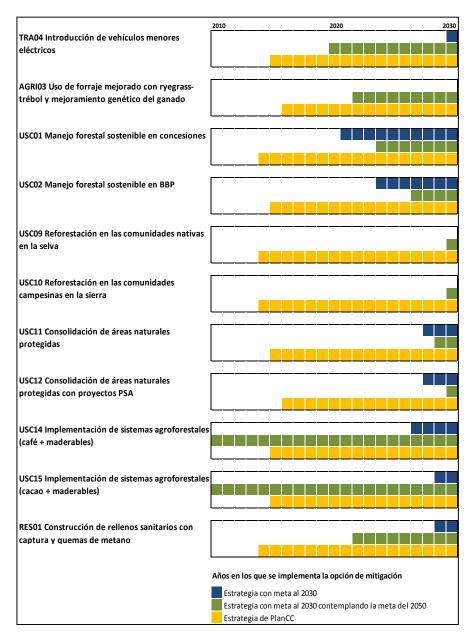


## Build emission-reduction pathways from the list of GHG mitigation options : Maccinert (II)



#### Ministerio del Ambiente





Build emissionreduction pathways from the list of GHG mitigation options: Maccinert (III)



## Quantify the investment needed and identify financing opportunities

Initial list of mitigation options

Review of estimated costs and projected cashflows

Estimation of main financial indicators

Identification of domestic financial resources & instruments

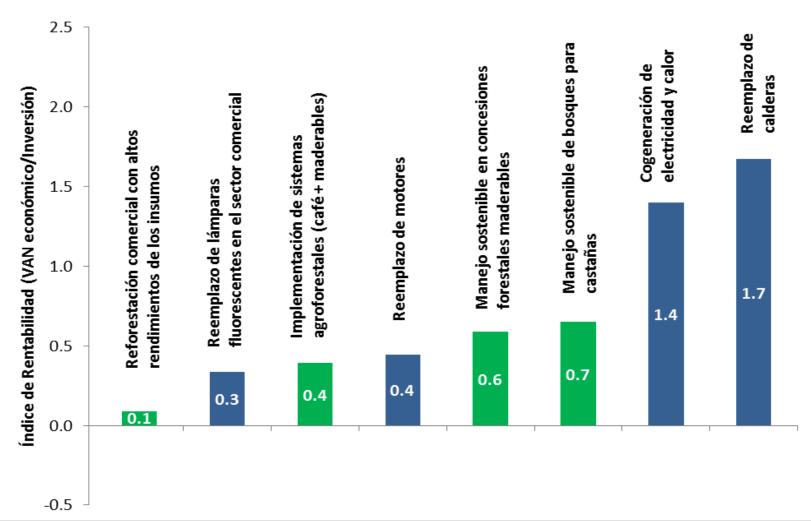


## Quantify the investment needed and identify financing opportunities (II)

- In the **energy** sector (replacement of lighting up to the efficiency of engines and electricity cogeneration, among others). The projects were very profitable, and some are already underway with funding from the private sector. However, support is still limited due to reasons such as **lack of information**, **high risk perception**, **or the idea that the cost does not justify the effort**.
- In the case of the **forestry** sector, the most attractive projects, such as commercial reforestation, require significant amounts of investment and have a payback period of relatively long investment, so the **funding issue** becomes more relevant.
- In the case of the **waste sector**, the return on invested amount were low due to reduced information for the evaluation.

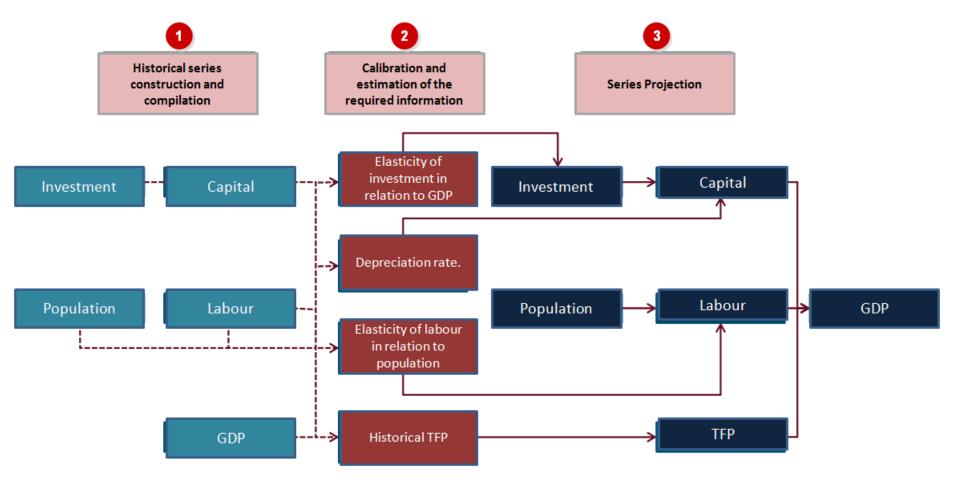


## Quantify the investment needed and identify financing opportunities (III)



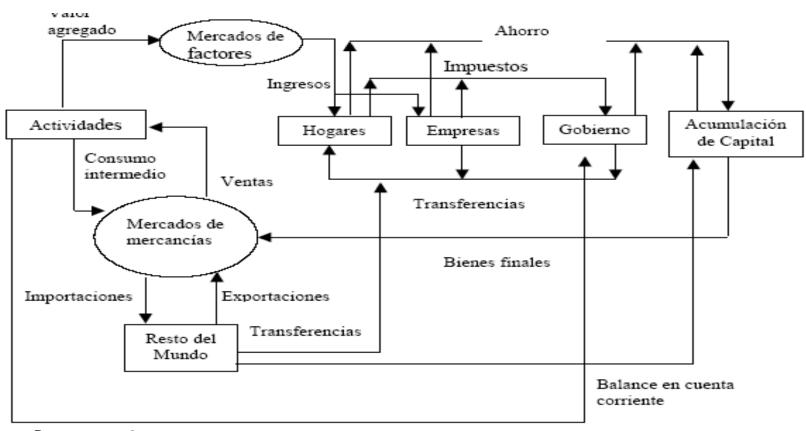


## Assess the macro-economic implications of the emission reduction pathways' implementation: Projection





## Assess the macro-economic implications of the emission reduction pathways' implementation (II): Simulation



Impuestos a las actividades



## Assess the macro-economic implications of the emission reduction pathways' implementation

#### **Model Assumptions**

- · Exogenous productivity and labor supply growth
- Full employment, : wages adjust to reach equilibrium
- Adjusts in the exchange rate to reach equilibirum in the external market

### Assumptions of the Governmen's

- Equilibrated Government budget balance no fiscal deficit in the LT
- No transaction costs :Governent revenue are allocated to public investment, consumption and transfers

### Model characteristics

- Land as a factor of production
- Emission intensity factors
- 25 economic activities included in the model (related to the emission options, agriculture, fishery, energy, transportation)



### Thank you!

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