



**Committee of Permanent Representatives**

**UN Environment**

**Nairobi**

**16<sup>th</sup> March 2017**

**TEEB**

***Valuing Nature's Blessings***

**Pavan Sukhdev**

**Founding Trustee, GIST**

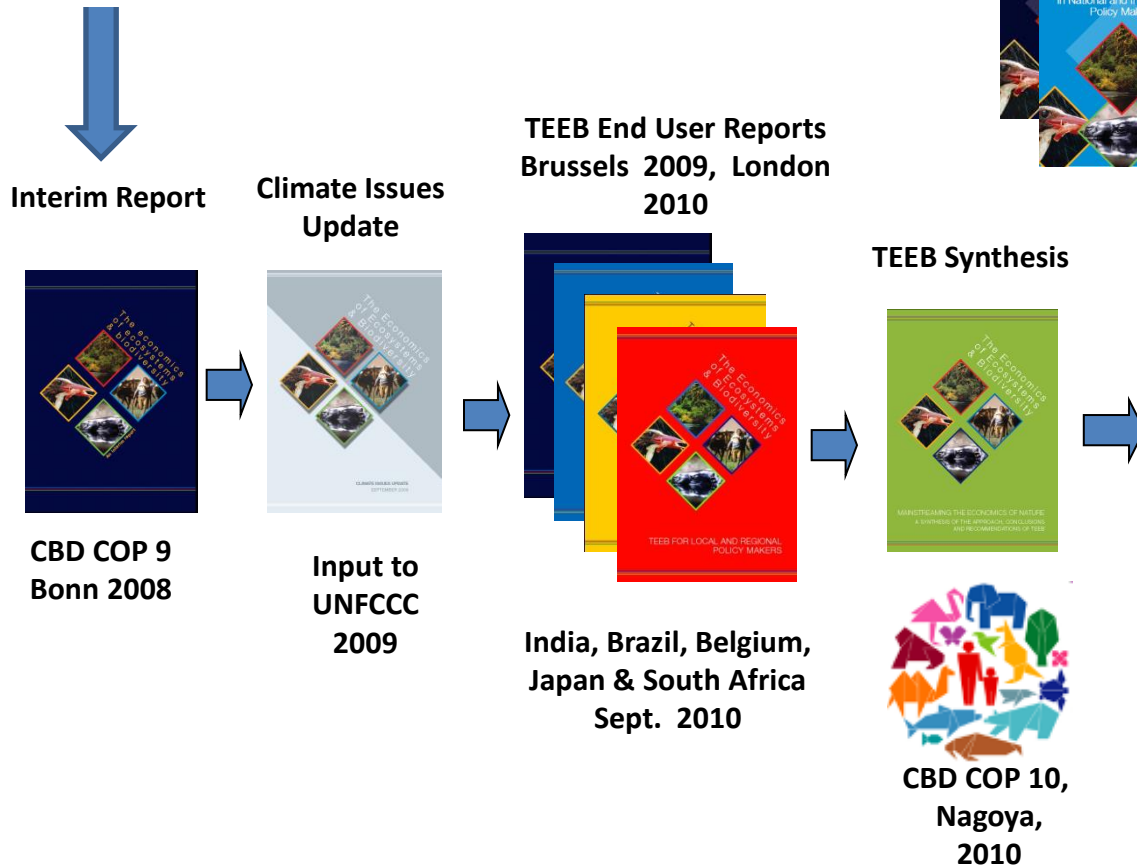
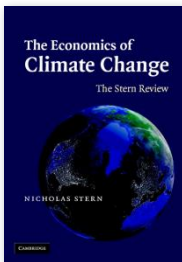
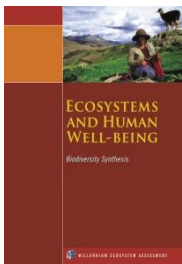
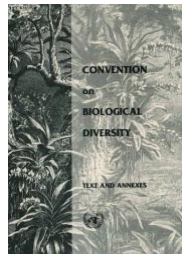
**& UNEP Goodwill Ambassador**

# The Economics of Ecosystems & Biodiversity



## TEEB, Phases 1 & 2 (2007-2010)

**G8 2007**  
**Environment Ministers Meeting**  
 Potsdam, 15-17 March 2007



### TEEB Phase 3 (Implementation)

- **Country TEEB Studies**
- **Sectoral TEEB Studies**
- **Business Externalities: NCC's "Natural Capital Protocol"**
- **"TEEB-Agri-Food"**



## Why Valuation Matters?

*“I conceive that the great part of the miseries of mankind are brought upon them by false estimates they have made of the value of things.”*

**Benjamin Franklin (1770's)**

*“Everything that can be counted does not necessarily count; everything that counts cannot necessarily be counted.”*

**William Bruce Cameron (1963)**



## Not the TEEB perspective on Valuation...





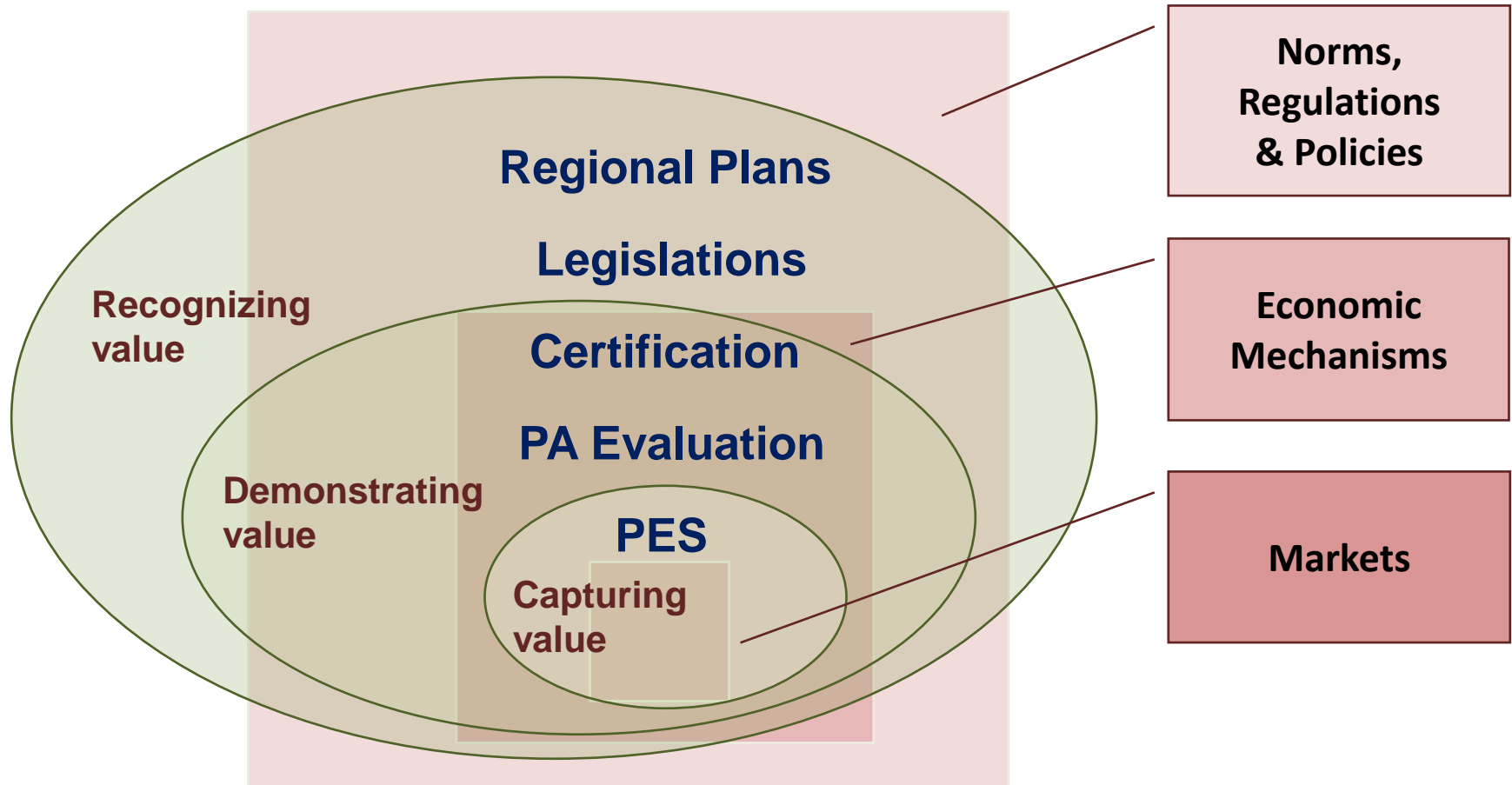
## ‘Valuation’ Vs. ‘Pricing’



- ❖ **Value (“valor”)** is the worth to you of what you receive.
  - “Valuation is a human institution” (TEEB)
- ❖ **Price (“precio”)** is what is paid for the value you receive
  - Markets provide prices for *private* goods and services, not *public* goods
  - Nature provides its valuable *public goods and services* for free, so there is *no price!*



## The TEEB perspective on Valuation



# The Economics of Ecosystems & Biodiversity



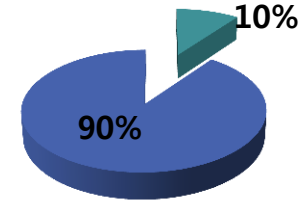
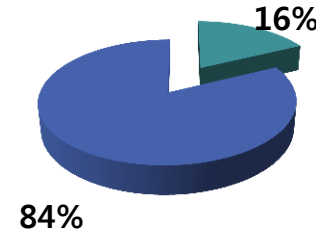
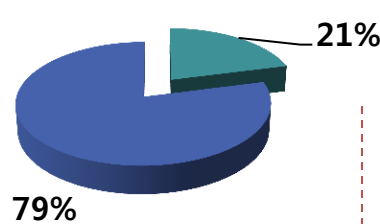
## “GDP of the Poor”

Indonesia

India

Brazil

Agriculture, Forestry, Fisheries  
as a % of conventional GDP



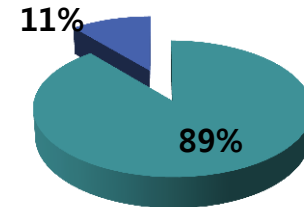
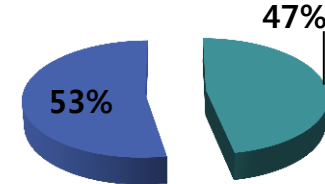
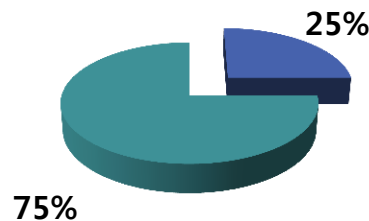
“Ecosystem services  
dependent” population

99 million

352 million

20 million

Ecosystem services as a %  
of “GDP of the Poor”



● Ecosystem services

# *GDP of the Poor in practice*



**Rattan: A non-timber forest product**

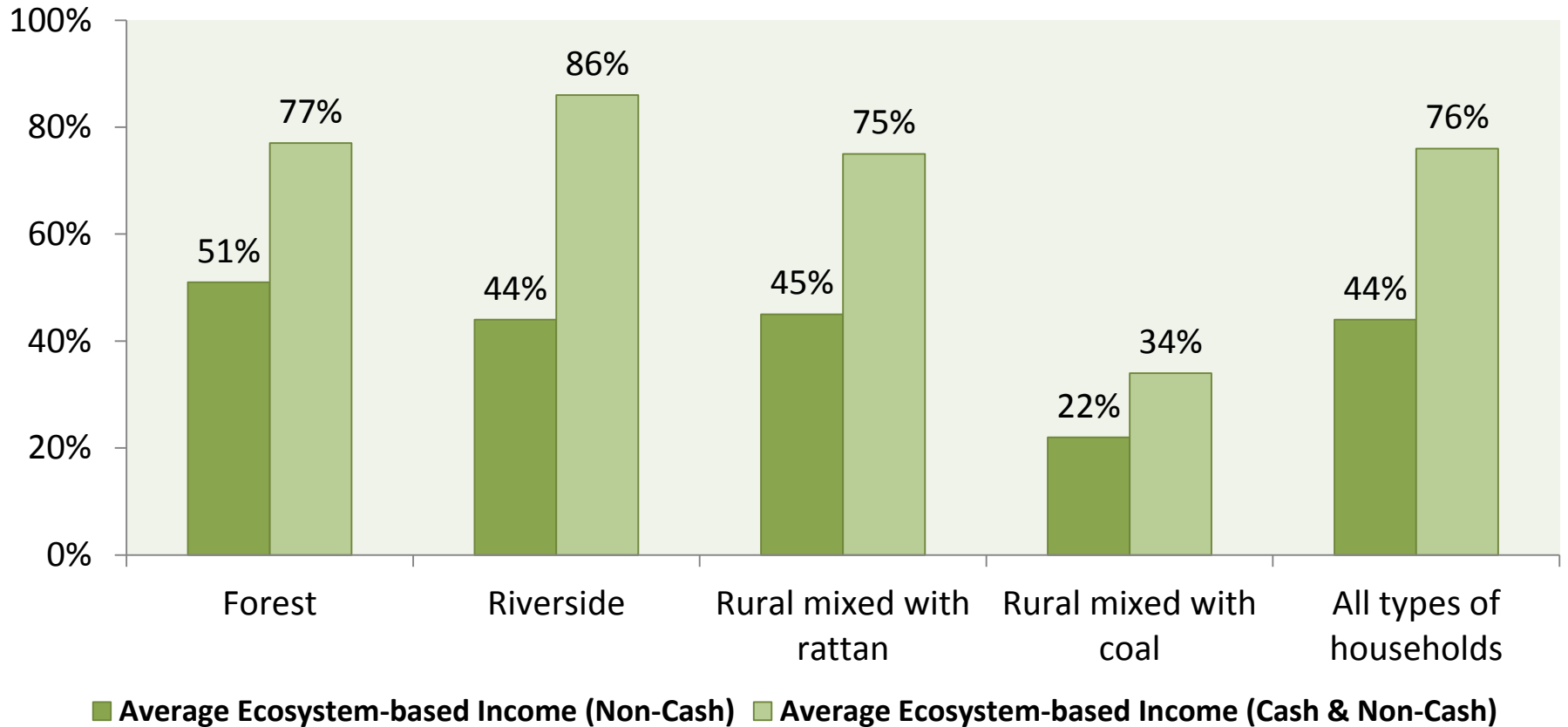
**Measuring household income**  
Pulang Pisau,  
Central Kalimantan, Indonesia





# ***GDP of the Poor in practice***

## **Ecosystem Services Dependence in Central Kalimantan, Indonesia**



# Some Uses of Valuation...

- **Managing business impacts and dependencies on Nature :** *measuring materiality to prioritize corporate responses to business impacts, business dependencies and societal impacts (“negative externalities”)*
- **Payments for Ecosystem Services (PES) :** *setting fair compensation for actions that generate public benefit at private cost (“positive externalities”)*
- **Terrestrial Carbon Mechanisms (Green Carbon):** *integrating carbon sequestration in forests and farms into nationally appropriate mitigation actions (NAMAs) & Paris targets (NDCs)*

# Natural Capital Protocol (NCP)

Natural Capital Coalition (NCC), *earlier* TEEB for Business Coalition, in 2014 launched a 2-year project to prepare and test a global framework and guidelines for measuring and valuing environmental impacts (externalities) and dependencies.

## Work-streams



Lot  
1

Global natural capital valuation framework (**'Protocol'**)

Lot  
2

Sectoral valuation guidance for **Food & Beverage**

Lot  
3

Sectoral valuation guidance for **Apparels**

Lot  
4

**'Protocol' Pilot Tests** with projects across many sectors

These work-streams were coordinated by two groups of experts led respectively by **WBCSD** and by **IUCN** and presented the "NCP" in July 2016

# Nationally Determined Contributions (NDCs) (Eg: Mexico)

## Mexico's NDCs : Reduction in GHG and Short Lived Climate Pollutants

Unconditional – 25 %  
Conditional – 40 %

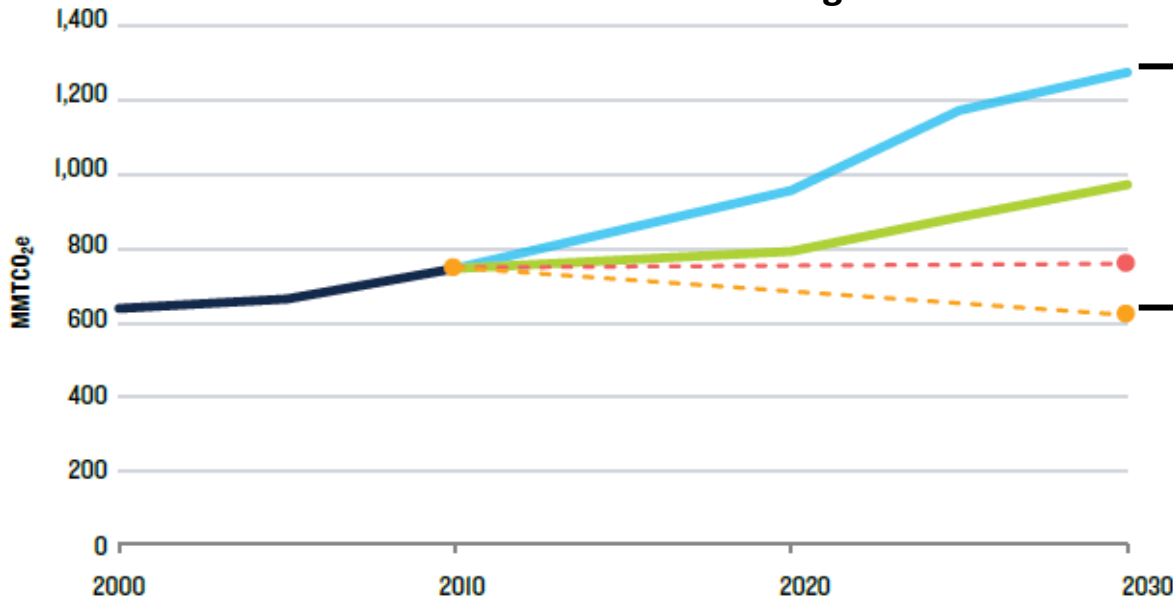
Base Year

2013

Target Year

2030

## Mexico's GHG Emissions Including LULUCF



Source: Natural Resources Defense Council, based on Mexico's "National Climate Change Strategy) 10-20-40 Vision" and INDC submission to the UNFCCC.



- *market & fiscal mechanisms needed for Mexico to reach its Paris climate goals*
- Mexico's 2018 "Certificados de Energía Limpia" (Clean Energy Certificates) a step in the right direction...
- to match demand & supply equitably & effectively, a robust **domestic carbon mechanism** is essential

# Carbon Mechanisms: Some Important Questions

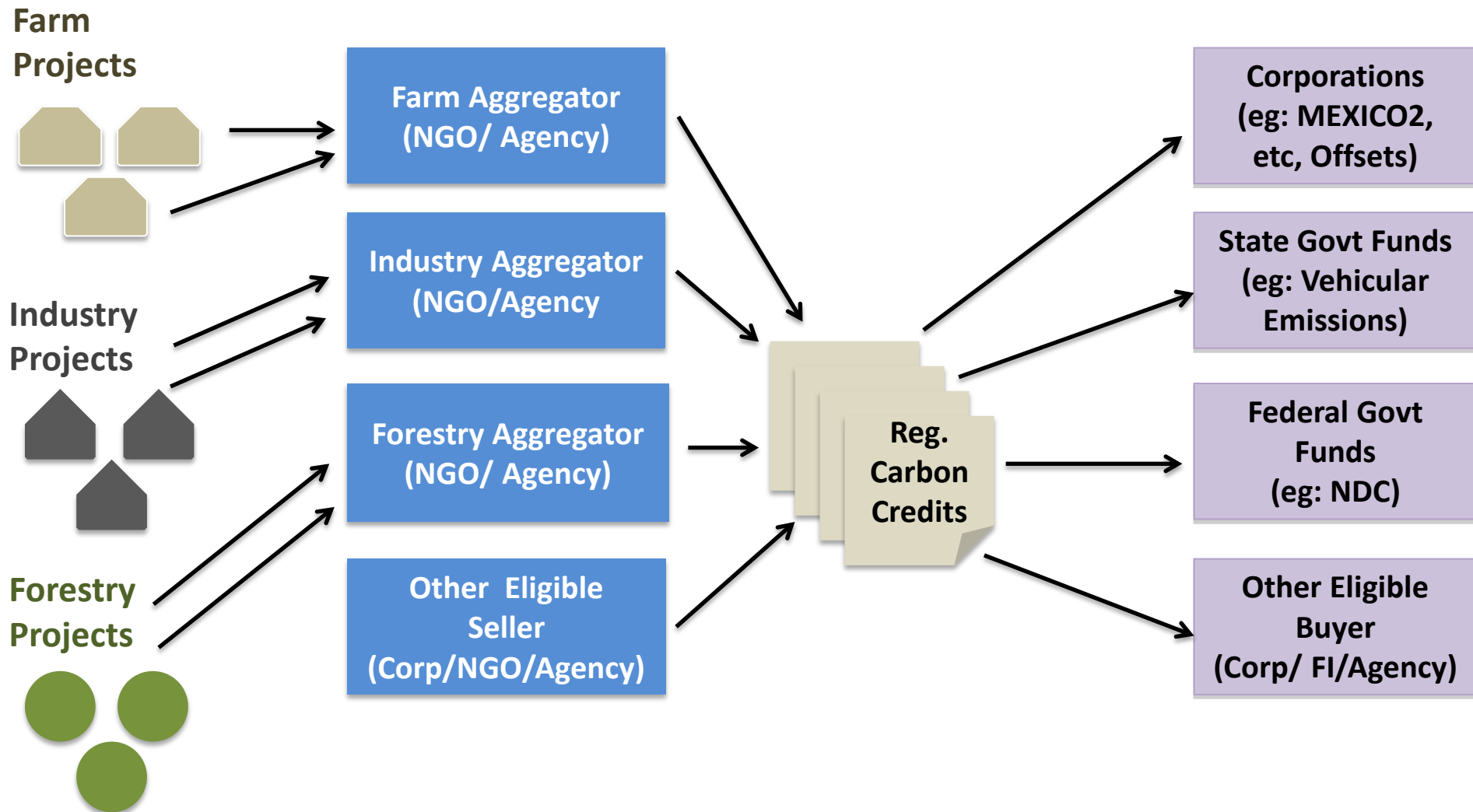
**Ethics:** Should climate change mitigation be seen as a corporate philanthropy, emitters' responsibility, or governments' responsibility?

**Quantities:** What are appropriate annual *volumes* of emissions reductions vs BAU?

**Prices:** What are appropriate ranges for Carbon *prices*, to incentivize reductions, penalize third-party costs, provide fair compensation for mitigators?

- *Polluter Pays* Principle
- Corporate externalities are the biggest “free lunch” in human history
- Externalities of global primary production and processing sectors is USD 7.3 trillion costs (Trucost, 2013)
- Paris Agreement: INDCs will achieve only 50% of required CO<sub>2e</sub> reductions to stay within 2°C target
- **Social Cost of Carbon / Shadow Price** estimates (/tonne CO<sub>2e</sub>)
  - Stern (2006): USD 85
  - UK: GBP 25 (SPC, 2007) to GBP 78 (2030)
  - US-EPA: USD 50 (2030; 3% Discount Rate)

# Possible structure to achieve NDCs: *A Domestic Carbon Mechanism?*





# Thank You!

[www.gistindia.org](http://www.gistindia.org)

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