MONITORING AGRICULTURAL POLICIES INCLUDING CLIMATE CHANGE PRINCIPLES
• Projections from existing **GCMs** at local scale with **crop models**

• **Simulation** models

• **Econometric** analysis

• **Cost-benefits** analysis
PEA - CLASSIFICATION OF EXPENDITURES

Public Expenditures Captured in the Analysis

Expenditures captured

- Direct support to agricultural agents
  - E.g. Input subsidy

- General sector support
  - E.g. Research

- Rural development
  - E.g. Rural health

Public expenditure in support of agriculture (PEA)
Public Expenditures Captured in the Analysis

Expenditures captured

- Public expenditure in support of agriculture sensitive to climate change (PEAcc)
  - Adaptation Policy Measures (APM)
    - E.g. Information System
  - Mitigation Policy Measures (APM)
    - E.g. Sequestration of Carbon
Expenditures considered for PEAcc analysis

- Expenditures on agricultural projects and programmes considered for PEAcc analysis
  - Originating from national or donor sources
  - Budgeted and actual expenditures
  - National (centralized) and decentralized expenditures
  - Policy transfers and related administrative costs
Criteria for Capturing Public Expenditures

Criteria to capture PE APM and MPM

- Purpose of expenditure
- Way of expenditure implementation

Public expenditure
Distinctions established to classify PEACC

Distinctions made to facilitate the classification of expenditures

- Adaptation Policy Measures (APM)
- Mitigation Policy Measures (APM)

A broad distinction between expenditures that are:

- Agriculture - Specific
- Agriculture - Supportive
- Non-agricultural

Within the agriculture-specific category, a distinction between:

- Support for producers and other agents in the value chain
- General or collective support for the sector
AGRICULTURE-SPECIFIC EXPENDITURES

Distinctions Established to Classify PEAcc

Schematic view of Agriculture-specific expenditure

Overarching categories | Categories | Sub-categories | Components
--- | --- | --- | ---
1. Agriculture-specific expenditure | 1.1 Payments to agents | 1.1.1 Payments to producers | A. Production subsidies based on outputs
1.1.2 Payments to consumers | | B. Input subsidies
1.1.3 Payments to input suppliers | 1.1.1 Payments to producers | C. Income support
1.1.4 Payments to processors | | D. Other payments to producers
1.1.5 Payments to traders | | E. Food aid
1.1.6 Payments to transporters | | F. Cash transfers
1.2 General sector support | 1.1 Payments to agents | G. School feeding programmes
1.1.1 Payments to producers | H. Other payments to consumers
1.1.2 Payments to consumers | | N1. Feeder roads
1.1.3 Payments to input suppliers | | N2. Off-farm irrigation
1.1.4 Payments to processors | | N3. Other off-farm infrastructure
1.1.5 Payments to traders | | P. Marketing
1.1.6 Payments to transporters | | Q. Other general support to the food and agriculture sector

Note: Not all categories are represented in the diagram. Its purpose is to show the tree structure of the classification for the agriculture-specific expenditures.
Price incentives analysis provides key information on the effects of specific agricultural policies and market performance on various agents in the value chain.
• Any deviation of the domestic price from the international border price of a commodity, whether import or export, reduces total welfare in the country.

• Within the political economy of trade and price policies under the border paradigm lays an assumption that there exist stable border prices and there are no deviations of domestic price from international border price.
FAO price incentives methodology seeks to measure price incentives for:

- Producers
- Processors/Traders
- Distributors
- Wholesalers/Retailer
- Consumers
OBSERVED NOMINAL RATE OF PROTECTION (NRP_o)

At farm gate:
NRPo captures all trade and domestic policies, inefficiencies along the product’s value chain and other factors affecting incentives or disincentives for the farmer.

At PoC:
NRPo helps identify where incentives and disincentives may be distributed along the commodity market chain.

At retail:
NRPo allows to examine the impact of trade and price policies on the price paid by agro-processors for primary products or by the final consumer at retail.
OBSERVED NOMINAL RATE OF PROTECTION ($\text{NRP}_0$)

Interpretation of $\text{NRP}_0$

- **Negative**: Producer receive less than what would be possible.
- **Neutral Stance**
- **Positive**: Producer receive a higher price than what would be possible.
If budgetary and other transfers to producers of the commodity are added to the price gap at farm gate when calculating the ratios, an additional indicator is obtained named as the Nominal Rate of Assistance (NRA). This indicator:

- Summarizes the incentives (or disincentives) due to domestic policy, market performance and budgetary and other transfers allocated to the commodity.

- Is only calculated at the farm gate level, as only budgetary and other transfers (BOT) to producers are considered.

The observed Nominal Rate of Assistance (NRAo) is defined as the percentage by which government policies, and budget transfers, have raised gross returns to producers above what they would be without the government’s intervention.
If only climate friendly budgetary and other transfers to producers of the commodity are added to the price gap at farm gate when calculating the ratios, an additional indicator is obtained named as the Nominal Rate of Assistance-Clima (NRA-clima). This indicator:

• Summarizes the incentives (or disincentives) due to domestic policy, market performance and climate friendly budgetary and other transfers allocated to the commodity.

• Is only calculated at the farm gate level, as only climate friendly budgetary and other transfers (BOT) to producers are considered.

The observed Nominal Rate of Assistance (NRA-Climao) is defined as the percentage by which government policies, and climate friendly budget transfers, have raised gross returns to producers above what they would be without the government’s intervention.
OBSERVED NOMINAL RATE OF ASSISTANCE (NRA₀)

Interpretation of NRA₀

- **Producer is facing taxation rather than subsidization**
- **Neutral Stance**
- **Producer is receiving subsidization**

- **Negative**
- **Zero**
- **Positive**
The effective rate of protection (ERP) is calculated only at the farm gate level and complements the NRP.

The calculation of the ERP requires data on:
- the farm-level cost of production inputs (such as seeds, fertilizers and pesticides)
- the cost structure within the upstream and downstream value chain segments
- It is possible to simulate the impacts on value added of different APM’s to climate change related to tradable inputs as fertilizer, agrochemicals, seeds and equipment and machinery
Interpretation of ERP₀

Tariff on output is smaller than the tariff on the inputs

Negative

Tariff on output is larger than the tariff on the inputs

Positive

Zero
COMBINING DATA ON THE EMISSION OF greenhouse gasses (GHG measured in CO2 equivalents) from farming activities with the incidence of policy incentives
Objective

- View agricultural policy from the viewpoint of greenhouse gas emissions
- Are the products that contribute the most to GHG emissions also those that receive the most protection?
- Or are the incentives emerging from policy in line with GHG emission mitigation objectives?
- ACE Concept
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