Policy Making in the National Context

How Policies Impact on a Socio-Economic System

About the FAO Policy Learning Programme
This programme aims at equipping high level officials from developing countries with cutting-edge knowledge and strengthening their capacity to base their decisions on sound consideration and analysis of policies and strategies both at home and in the context of strategic international developments.

Related resources
- See all material prepared for the FAO Policy Learning Programme
- See the FAO Policy Learning Website: http://www.fao.org/tc/policy-learning/en/
Policy Making in the National Context
How Policies Impact on a Socio-Economic System

By

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About EASYPol

The EASYPol home page is available at: www.fao.org/easypol

This presentation belongs to a set of modules which are part of the EASYPol Resource package: FAO Policy Learning Programme: Quantitative Socio-Economic Policy Impact Analysis

EASYPol is a multilingual repository of freely downloadable resources for policy making in agriculture, rural development and food security. The resources are the results of research and field work by policy experts at FAO. The site is maintained by FAO’s Policy Assistance Support Service, Policy and Programme Development Support Division, FAO.
Contents

1) How global policy objectives are translated into national policies.
2) National policies as instruments of change.
3) Market failures and the need for policies.
4) Structure of a socio-economic system.
5) Circular flow of income and SAMs.
6) Roles of agriculture: income, commodities...
7) Rationale of ex-ante Socio-Economic Policy Impact Analysis (SEPIA) in the policy cycle.
8) A conceptual framework for ex-ante SEPIA.
9) Tools for quantitative SEPIA.
10) Conclusion.
Objectives

Purpose
To show why and how policies impact on a national socio-economic system.

Learning objectives

- Recognize how international objectives are translated into specific commitments at the national level by means of national policies;
- Identify the constituting elements of a socio-economic system, their mutual links and “multiplier effects”;
- Describe how income is generated and distributed in the socio-economic system;
- Define the role of the agricultural sector within an economic system in generating and distributing income;
- Explain why and how to detect ex-ante whether policies have desired socio-economic impacts.
International development targets

Millennium Development Goals

1) Eradicate extreme poverty and hunger
2) Achieve universal primary education
3) Promote gender equality and empower women
4) Reduce child mortality
5) Improve maternal health
6) Combat HIV/AIDS, malaria and other diseases
7) Ensure environmental sustainability
8) Develop a global partnership for development
International policy commitments and the national policy context

International policy commitments must be adapted to the characteristics of the country and translate into specific policy objectives valid at the national level.

Vietnam, for example, has translated Millennium Development Goals into specific national policy objectives:

Vietnam Development Goals
## Vietnam policy strategy to reach the MDGs

<table>
<thead>
<tr>
<th>Vietnam Development Goal</th>
<th>Millennium Development Goal</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between 2000 and 2010 reduce poverty according to the international poverty line by 2/5(^{th}) and according to the national poverty line by 3/4(^{th})</td>
<td>Between 2000 and 2015, halve the proportion of people whose income is less than one dollar a day</td>
<td>1. Proportion of population/household below the international and national poverty line</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Goal 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between 2000 and 2010 reduce food poverty according to the international food poverty line by 3/4(^{th})</td>
<td>Between 2000 and 2015, halve the proportion of people who suffer from hunger.</td>
<td>4. Prevalence of underweight children (under-5 years of age)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Poverty gap ratio</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Share of poorest quintile in national consumption</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Proportion of population below the international food poverty line</td>
</tr>
</tbody>
</table>
Vietnam policy strategy to reach the MDGs

Goal 1: Reduce the proportion of people living in extreme poverty

Policy strategy and options:

- Reach high and more balanced levels of growth

  1) Institutional Reforms:
     - Private sector development (increase productivity in the agricultural sector, enhance off-farm labour opportunities, etc)
     - Banking reform (increase credit availability for the poor, etc)
     - State enterprise reform

  2) Economic Reforms:
     - Further trade reform and integration

  3) Social Sector Reforms:
     - Improve public expenditure management (increase public expenditure on infrastructure and social services, etc)
Vietnam policy strategy to reach the MDGs

**Goal 2: Reduce hunger and malnutrition**

**Policy Strategy and options:**

- Improve agricultural support service
- Increase specific targeted programs on food security
- Improve the performance of social and health service at the local level
- Increase public expenditure for sanitation and supply of drinking water
Market failures occur when freely-functioning markets fail to deliver an efficient and optimal allocation of resources.

Social welfare may not be maximized and there could be a loss in economic efficiency.
Market failures may occur in the following situations:

- Lack of competition
- Presence of public goods and common property rights
- Presence of externalities and incomplete property rights
- Incomplete and asymmetric information
Government intervention in the economy

For any market failure, we can think of a form of public intervention that, in principle, might compensate for its negative effects.

- Public provision of public goods may correct for the under provision of such goods by private operators;
- Public contracts and subsidized insurance may correct the presence of asymmetric information, and so on;
- Imposition of taxes and/or subsidies can help internalize externalities

Correction of market failures allows to achieve efficiency of resources use. BUT:
These types of intervention do not address the equity concern.

REMARK: Policy interventions are needed also to address EQUITY concerns, to achieve a desired distribution of wealth, income, expenditure and welfare in general.
A public policy can be defined in the following way:

1. A policy consists in an intervention of the public authority that wants to change the natural happening of events for specific objectives in order to satisfy the needs or to use some opportunities.

2. A policy is a coherent set of decisions taken by a political actor or a group of actors that concerns the choice of objectives and resources to be achieved in a specific context (Jenkins 1978).

3. A public policy may be considered as the job of an artist and an craftsman together. The artist has a vision made of creativity and imagination. He uses them to identify social problems, to describe them and to imagine possible solutions. The craftsman has the savoir-faire to manage the policy instruments, analyze, implement and to verify if the policy has a positive or negative impact (Dye, 1998).
In general, public policies aim to:

1. **Supply** (e.g., the supply of goods and services: transport, information, environment, etc.)

2. **Promote/encourage/support** (e.g., action to stimulate the use of new technologies for irrigation, export products, off-farm employment;

3. **Impose/enforce** (e.g., vaccinations, etc.);

4. **Save/preserve** (e.g., durable agricultural techniques like the rotation of cultures, the carriage of soil fertility, etc.);

5. **Prevent** (e.g., the use of certain types of pesticides);

6. **Discourage** (e.g., labour in the pastures, wasting water)

7. **Sustain** (e.g., support the income of poor households).

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A taxonomy of public policies applied to the agricultural sector

**Agricultural Development Policies**

**Agricultural Price Policies**
- Taxes and subsidies – transfers between public budget and producers and consumers
- International trade policies – taxes and quotas limiting/promoting imports and exports
- Direct control – regulation of marketing

**Macroeconomic Policies**
- Monetary and Fiscal Policies
- Foreign Exchange Rate Policies
- Factor Price Policies (wage, interest and land rental rates)
- Natural resources and land use policies

**Public Investment Policies**
- Infrastructure – transport, irrigation
- Human capital – education, training, health
- Research and technology – production and processing technologies
A taxonomy of policies

Agricultural price policies are commodity specific

- **Taxes and subsidies** result in transfers between the public budget and producers and consumers. Taxes transfer resources to the government, whereas subsidies transfer resources away from the government.
  
  **Examples:** issue of licenses for natural resource use; subsidized sales of State-owned farmland; purchase of harvests at above the market prices, etc.

- **International trade policies** influence prices and quantities of competing products imported into the country and those received from exports. Instruments: tariffs or quotas on imports and subsidies on exports.
  
  **Examples:** Import restrictions that raise domestic prices above comparable world prices; high tariffs on selected products, low tariffs on others, etc.

- **Direct control** result in government regulations of prices, marketing margins, or cropping choices. They can create excess supply or demand at administered prices; are used mainly to benefit consumers.
  
  **Examples:** price controls on basic foods such as cereals, dairy products, etc.
Macroeconomic policies are nation-wide and affect all commodities simultaneously.

- **Monetary and fiscal policies** refer to controls over the rate of change in the country’s supply of money and to the balance between government’s revenues and expenditures.

  **Examples:** commodity taxation, public utility pricing, income taxation, budgeting public expenditure etc.

- **Foreign exchange rate policies** directly affect agricultural prices and costs. It directly influences the price of an agricultural commodity because the domestic price (in local currency) of a tradable commodity is closely tied to the world price times the exchange rate (the ratio of domestic to foreign currency).

  **Examples:** eliminating an overvalued exchange rate in order to maintain the country’s international competitiveness.

- **Factor price policies** directly affect agricultural costs of production (land, labour, and capital costs).

  **Examples:** minimum wage policies, policies that affect land rental rates, Support to negotiations between employers and workers, etc.
Public investment policies can affect various groups of agents – producers, traders, and consumers – differently as they are specific to the areas where the investment occurs and/or segments of chains.

- **Public investment in infrastructure** can raise returns to producers or lower production costs.
  
  **Examples:** construction of essential capital assets, such as roads, ports, and irrigation networks, provision of port facilities, collection centres and storage deposits, etc.

- **Public investments in human capital:** government’s expenditures to improve the skill levels and health of producers and consumers.
  
  **Examples:** investments in formal schools, training and extension centres, public health facilities, and clinics and hospitals.

- **Public investments in research and technology** are related to research in new agricultural production technologies and aim at improving agricultural productivity.
  
  **Examples:** better water control, provision of the technological breakthroughs, research in new types of seeds, etc.
How do we measure in monetary terms the impacts of policies on a socio-economic system?

Let us first understand the structure of a socio-economic system and how it works.

Participatory Exercise:
Elements and structure of a socio-economic system

Assignment:
“Identify key constituting elements of a socio-economic system”
How do we classify the elements of a complex socio-economic system

Is there a way to classify these various and heterogeneous elements that would allow us to highlight their mutual links and create a “map” of the socio-economic system?

Yes, The System of National Accounts (SNA, UN standards)

Goods and services | Production Activities | Factors | Institutions | Savings-Investments | Rest of the world

Labour | Capital serv.

Firms | Households | Public sector
Links within a socio-economic system: the circular flow of income

Value Added

Factor Markets

Indirect taxes

Savings

Taxes

Savings-Invest.

Activities

Households

Enterprises

Government

Commodity Markets

Final consumption

Internat. Transfers

Rest of the World

Current external balance (+/-)

Inputs

Outputs

Exports

Imports

Profits

Domestic Transfers

Investment

Value Added

Factor Markets

Indirect taxes

Savings

Taxes

Savings-Invest.

Activities

Households

Enterprises

Government

Commodity Markets

Final consumption

Internat. Transfers

Rest of the World

Current external balance (+/-)

Inputs

Outputs

Exports

Imports

Profits

Domestic Transfers

Investment
Impacts of policy measures on the socio-economic system

- **Food security in rural areas**
  - Rural household purchasing power
  - Real agricultural prices
  - Agricultural production (in real terms)
  - Investment

- **Food security in urban areas**
  - Demand multiplier effects
  - Non agricultural production, income and employment
  - Foreign exchange and imports
  - Agricultural exports

- **Poverty all. policies**
  - Agricultural income and employment
  - Investment and resource management policies
  - Technology and marketing policies

- **Trade polices, exchange rate policy**

Adapted from Norton (2004)
Policy impacts: questions to be answered

Socio-Economic Impact Analysis of policy measures (SEPIA) aims at answering questions like:

1. How are policy measures going to change socio-economic reality?
2. Who are the winners and how much do they win?
3. Who are the losers and how much do they lose?
4. For how long will policy effects last?
5. How much will policy cost?
6. How could we fund it?
7. Should we expect unwanted effects?
8. How can we take them into account?
In the remaining part of the session we will deal with **Quantitative approaches** for Socio-Economic Policy Impact Analysis (SEPIA).
Counterfactual policy impact analysis is a SEPIA approach which provides insights into likely policy impacts by means of WITH – WITHOUT policy measure comparisons. How do we do this?

1. Build a base scenario (reference)
2. Build a scenario which incorporates socio-economic impacts of the policy measure under investigation
3. Compare it with the base scenario

Usual comparison: with-without policy, but also alternative policies
Counterfactual policy impact analysis: policy impact model

How do we build a “WITH policy” scenario?

To go from one scenario to another, we must have a policy impact model that would allow us to identify and quantify the changes brought about by a policy measure in the socio-economic system.
Socio-economic indicators: comparative analysis

To “measure” impacts:

1. We choose socio-economic indicators that describe scenario aspects of interest
2. We calculate indicators for the different scenarios
3. We compare indicators

For example, to fight poverty we use:
- poverty indicators, and/or
- inequality indicators

Policy Options

? Policy option impacts ?

Base scenario

Policy impact model

Scenario with policy

Comparative analysis
A “Policy Impact Model” can be defined as a set of events sequentially linked by cause-effect relationships starting with one (or more) “Policy instruments”, comprising “transmission mechanisms” and ending with “policy objectives”.

Policy Instruments → Transmission Mechanisms → Policy Objectives
Policy impact model: an example

Increased extension officers

Improved extension services

Adoption of new technologies

Improved yields

Increased output per producer

Increased sales

Increased income to producers

Increased income to producers

Increased output per producer

Improved yields

Adoption of new technologies

Improved extension services

Increased extension officers
Approaches for economic quantitative analysis of policies

Quantitative socio-economic models allow us to represent a socio-economic system in a stylized way and to compare the different scenarios

1. Micro-accounting approaches
2. Partial Equilibrium Analysis (PEA)
3. Multi-Market equilibrium Models (MMM)
4. Computable General Equilibrium (CGE)
5. Multi-period of Cost-Benefit Analysis (CBA)
6. Accounting chain frameworks (Value Chain Analysis- VCA)
7. Social Accounting Matrix (SAM) multipl.
8. Macro-micro integrated approach (Extended CGE)
The Social Accounting Matrix as a tool for policy impact analysis

Is there a convenient way of quantifying and representing the monetary flows among elements of a socio-economic system, in order to carry out policy impact analysis?

YES

The Social Accounting Matrix (SAM) (A component of the SNA, UN standards)

In the SAM:

1. Each element (commodities, activities, factors) has a ‘two sides’ account recording inflows and outflows of payments to/from that element.
2. Each column, and the corresponding row represents an account.
3. Outflows are read on the columns; inflows on the rows.
### A synoptic view of a socio-economic system: the SAM

<table>
<thead>
<tr>
<th>Goods and services</th>
<th>Activities</th>
<th>Factors</th>
<th>Resident Institutions</th>
<th>Savings-Investments</th>
<th>Rest of the world</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
<td></td>
</tr>
</tbody>
</table>

- **Goods and services**
- **Activities**
- **Factors**
  - Labour
  - Capital
- **Resident Institutions**
  - Households
  - Firms
  - Public sector
- **Savings-Investments**
- **Rest of the world**
- **Total**

**Origin of the payment**

**Destination**

Each cell reports the amount paid by the account of the column to the account the row.
### A synoptic view of a socio-economic system

<table>
<thead>
<tr>
<th>Goods and services</th>
<th>Activities</th>
<th>Factors</th>
<th>Resident Institutions</th>
<th>Savings-Investments</th>
<th>Rest of the world</th>
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<td>(1)</td>
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<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
<td></td>
</tr>
</tbody>
</table>

#### Activities
- Goods and services
- Total

#### Factors
- Labour
- Capital

#### Resident Institutions
- Households
- Firms
- Public sector

#### Others
- Intermediate consumption
- Wages and Salaries
- Tot. supply of goods
- Taxes on activities
- Earn.b.taxes (EBT)
- Tot. demand

#### Calculations
- Domestic production
- Domestic production
- Export of goods
- Imports of goods
- Household consumpt.
- Governm. consumpt.
### A synoptic view of interrelations within an economic system: SAM

<table>
<thead>
<tr>
<th>Goods and services</th>
<th>Activities</th>
<th>Factors</th>
<th>Resident Institutions</th>
<th>Capital accum.</th>
<th>Rest of the world</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td></td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
</tr>
<tr>
<td>Goods and services</td>
<td>Trade and transport margins</td>
<td>Intermediate consumption</td>
<td>Final consumpt. of households</td>
<td>Final consumpt. of the public sector</td>
<td>Investment and increases of stocks</td>
<td>Exports</td>
</tr>
<tr>
<td>Activities</td>
<td>Domestic production</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factors</td>
<td>Labour</td>
<td>Wages and Salaries</td>
<td>Earnings before taxes (EBT)</td>
<td></td>
<td>Labour income from ROW</td>
<td></td>
</tr>
<tr>
<td>Capital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Capital incomes</td>
<td></td>
</tr>
<tr>
<td>Resident Institutions</td>
<td>Households</td>
<td>Wages and Salaries</td>
<td>Intra-household transfers</td>
<td>Distributed profits</td>
<td>Transfers to households</td>
<td>Transfers from ROW</td>
</tr>
<tr>
<td>(4)</td>
<td>Firms</td>
<td>Earnings Before Taxes (EBT)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public sector</td>
<td>Taxes on goods and services</td>
<td>Security charges and taxes on activities</td>
<td>Taxes and social security</td>
<td>Taxes within the PS</td>
<td>Budget deficit</td>
<td>Transfers from ROW</td>
</tr>
<tr>
<td>Capital Accumulation</td>
<td>Decreases of stocks</td>
<td>Depreciation of capital assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rest of the world</td>
<td>Imports</td>
<td>Remuneration of foreign labour</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total</th>
<th>Supply of goods and services</th>
<th>Domestic production</th>
<th>Payments for labour</th>
<th>Payments for capital services</th>
<th>Households expenditure</th>
<th>Use of EBT</th>
<th>Public expenditure</th>
<th>Total investment</th>
<th>Payments of ROW</th>
</tr>
</thead>
</table>
**SAM: A simple example**

A two-sector closed economy:

<table>
<thead>
<tr>
<th></th>
<th>Agricult</th>
<th>Industry</th>
<th>Households</th>
<th>Government</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricult</td>
<td>50</td>
<td>20</td>
<td>25</td>
<td>15</td>
<td>110</td>
</tr>
<tr>
<td>Industry</td>
<td>30</td>
<td>30</td>
<td>15</td>
<td>5</td>
<td>80</td>
</tr>
<tr>
<td>Households</td>
<td>20</td>
<td>10</td>
<td>0</td>
<td>15</td>
<td>45</td>
</tr>
<tr>
<td>Government</td>
<td>10</td>
<td>20</td>
<td>5</td>
<td>2</td>
<td>37</td>
</tr>
<tr>
<td>total</td>
<td>110</td>
<td>80</td>
<td>45</td>
<td>37</td>
<td>272</td>
</tr>
</tbody>
</table>

What happens within the economic system if the government implements the extension policy mentioned above, leading to a unit monetary income increase of households?

- Inspect the graph of the socio-economic system
- Use “SAM Multipliers”
**SAM Multipliers: A tool for policy impact analysis**

Impact on total output (or income)

<table>
<thead>
<tr>
<th></th>
<th>Agricult</th>
<th>Industry</th>
<th>Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricult</td>
<td>3.818</td>
<td>2.091</td>
<td>2.818</td>
</tr>
<tr>
<td>Industry</td>
<td>2.182</td>
<td>2.909</td>
<td>2.182</td>
</tr>
<tr>
<td>Households</td>
<td>0.967</td>
<td>0.744</td>
<td>1.785</td>
</tr>
</tbody>
</table>

Unit shock
**SAM multipliers approach: an assessment**

**General characteristics**

Social Accounting Matrices (SAM) allow us analysing structural inter-dependencies and multiplier effects.

**Relevance for poverty/FS**

With SAM, we can analyse the macro-intersectoral links and the impacts on various layers of the population.

**Coverage of policy measures**

Only policies with impacts that do not deviate too far from the base case. Upstream impact model needed, as often policy instruments aren’t available.

**Technical structure**

Accounting framework with no explicit modelling of behaviour. Fixed prices.

**Resource needs**

Knowledge of macro-accounting rules and good national statistics. Much macro and micro data needed.
The policy cycle

The development of a public policy is a complex, dynamic, iterative and interactive process.

In the majority of cases the policy cycle depends on the socio-economic and political context (demand of intervention, degree of decentralization, degree of real democratization, participation, etc.)

Despite these characteristics, it is possible to identify the common elements to the majority of political processes, called ‘the Policy Cycle’.
The policy cycle (cont’d)

**IDENTIFICATION**
- Information about the context
- Identification of present actors
- **analysis SWOT** for the development.
- Diagnostics (identification of problems)
- Definition of policy Objectives
- Identification of policy options

**FORMULATION**
- Definition of detailed objectives
- Selection of feasible instruments/measures (Regulations, programmes etc.)
- **Detailed Analysis of options** (ex-ante analysis of socio-economic impacts and of institutional implications)
- Definition of procedures to be implemented
- Decision of policy measures

**IMPLEMENTATION**
- Actions for policy implementation (in accordance with chosen measures)

**MONITORING OF IMPLEMENTATION AND OF POLICY IMPACTS**
- Revision process

**EXTERNAL EFFECTS** (sectoral global performance, linkages and intersectoral constraints, etc.)

**EXTERNAL FACTORS** (other factors influencing the actual conditions and the change of the context)

Adjustments of the policy pattern
Further readings


Davis, B., Reardon, T., Stamoulis, K.- Winters, P. 2002. Promoting Farm/Non-Farm Linkages for Rural Development. Case studies from Africa and Latin America. FAO

