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**AGRICULTURAL COMMODITIES AND
THE ENVIRONMENT**

Mehmet Arda

DRAFT OUTLINE AND SPEAKING NOTES

INTERNATIONAL ACTION FOR SUSTAINABLE DEVELOPMENT

AGRICULTURAL COMMODITIES AND THE ENVIRONMENT

Mehmet Arda
UNCTAD

I. THE CONCEPT OF SUSTAINABLE DEVELOPMENT:

Brundtland Report:

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:

the concept of "needs", in particular the essential needs of the world's poor, to which overriding priority should be given; and

the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs."

- Income and employment needs of present and future generations, in particular the poor;
- Consumption needs of future generations.

**THEREFORE, JOINT RESPONSIBILITY AND COOPERATION FOR
THE MAINTENANCE OF PRODUCTIVE CAPACITY**

- Technology and measures should fit the social organization, be applicable by producers. Producers' and consumers' response, within the given social organization, to economic and other stimuli needs to be well understood. They may need to be influenced and changed. Role of policies and measures.

- International cooperation - not coercion- in the case of non-traded products is different from that in the case of traded products. In the first case it comprises simply assistance, in the second, "responsibility" is more direct. It may also involve sharing the burden of environmental protection through accepting higher prices.

II. ENVIRONMENTAL EFFECTS OF AGRICULTURE:

Effects can be direct or indirect (focus on direct), positive or negative.

Positive: Generate a net positive contribution or prevent and neutralize negative effects otherwise generated.

- Tree cover (carbon sequestration, erosion control)
- Use of polluting by-products as fertilizer

Negative: Harm natural resources and health.

A. OVERVIEW OF ENVIRONMENTAL EFFECTS

1. SOIL (Planting formations, clearing of nitrogen fixing plants and ground vegetation, agrochemical misuse)
2. WATER (Agrochemical misuse, processing)
3. AIR (Oxygen fixing, spraying, burning of waste)
4. FOREST COVER (Economic sense - valuation of the forests)
5. BIODIVERSITY (Forest clearing and agrochemicals that destroy useful flora and fauna)
6. HEALTH (Improper and non-protected application of agrochemicals)

B. DETERMINANTS OF ENVIRONMENTAL EFFECTS

1. "INHERENT" IN AGRICULTURAL PRODUCTION

a. **NATURAL FACTORS:** Tree crops vs. annual crops - carbon sink vs. irrigation requirements; geophysical features; processing requirements.

b. **PRODUCTION METHODS:** To some extent determined by natural factors; kind and intensity of agrochemical use - coffee relatively good-; mix and rotation of crops, maintenance of leguminous and nitrogen fixing plants; Low External Input Agriculture - each farm an autonomous ecosystem, foster total productivity, not one single output; disposal of by-products and waste - use as fertilizer (but may propagate disease), use as fuel - organization and valuation problems.

c. **SCALE OF PRODUCTION:** Big estates more mechanized, more agrochemicals to cut labour costs; small farms more diversified, imputed labour costs are low but cash outlays are difficult.

2. "EXTERNAL" TO AGRICULTURE

a. **LEVEL OF DEVELOPMENT / POVERTY:** Identification of problems, design and implementation of policies; Poverty - encroachment of forest areas; Illiteracy - improper application of agrochemicals - health effects.

b. **MACROECONOMIC FRAMEWORK:** Agricultural pricing, taxes and subsidies; impact on land values and investments; exchange rates.

c. **INTERNATIONAL MARKET CONDITIONS:** As felt by producers - as affecting government policies.

d. **LEGAL FRAMEWORK:** Land tenure.

e. **ENVIRONMENTAL REGULATIONS** (Legislation; enforcement)

f. **CONSUMER PREFERENCES** (Environmental and social consciousness increasing, but also demand for flawless appearance)

III. TAKING ACCOUNT OF ENVIRONMENTAL COSTS

RIO DECLARATION, IN PARTICULAR, PRINCIPLE 16: "National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to public interest and without distorting international trade and investment".

A. DEVELOPMENTAL CONTEXT:

1. Patterns of production

When environmental costs are not taken into account, economic calculations are incomplete, wrong signals are given to producers and consumers. Polluting and resource depleting activities are promoted.

2. Economic growth

Time preference, short vs. long term considerations.
Easier to act and introduce measures in a growing economy.

3. Foreign exchange

Valued very highly, both current needs and investment purposes.

4. Income

Low incomes preclude bearing further costs.
"Taxing" pollution leads to substitution but if real incomes are reduced, lower propensity to preserve environment. Income neutral measures to be preferred.

5. Employment

Environmentally friendly methods are more labour intensive.

6. The burden of neglect

Focus on domestic environmental costs - mostly the poor are harmed. High proportion of GDP in developing countries.
Often caused by wrong policies and incentives.

LINK WITH PRICES

Mechanism very complex. Internalization, in principle, acts first on the supply side. It gives "correct" signals about what and how to produce. As environmental resources are underpriced, costs are increased. Whether these can be reflected in prices and passed on to the consumer, depends on several parameters, including those on the demand side. More likely with manufactured products, less so with agricultural products.

1. NATURE OF INTERNATIONAL MARKETS:

Elasticity of demand. For one commodity in general, and for one producer of the particular commodity. In the short term vs. the long term. For the commodity in general, elasticities are low, indicating costs can be passed on. For individual producers, not so, because of competition. This depends on elasticity of supply by other producers. This is usually high. Therefore not conducive to action by individual countries.

2. AGRICULTURAL SUBSIDIES

Depress prices - more relevant to products competing with developed country supplies.

IV. INTERNATIONAL COOPERATION

In the light of the developmental, the income and foreign exchange constraints, as well as the characteristics of commodity markets, international cooperation and/or assistance needed to encourage and enable developing countries to take into account environmental costs.

1. COOPERATION ON GLOBAL ENVIRONMENTAL PROBLEMS:

In the context of Multilateral Environmental Agreements

2. COOPERATION AIMED AT DOMESTIC POLICY MAKING:

Assistance in the identification of the social and economic costs of not taking into account the environmental implications of development strategies. To avoid a narrow partial equilibrium approach. Assessment of dynamic effects of action / neglect. Design and implementation of policies and measures.

3. COOPERATION AIMED AT PRICES:

a. Commodity wide cooperation

Producers could agree on minimum common norms for environmental quality. Higher costs to be reflected in prices by all. Likely to be fragile in general. More chance of success if common problems were identified, and if these problems exist in a large number of producing countries, or in countries comprising a large portion of world supply. Identifiable technical solutions would also facilitate accord.

Consumers could support by reducing barriers to trade for the product. PPM issue will not be relevant if barriers are reduced for all producers, whether cooperating or not. Meaningful if substantial proportion of the producers concur. Risk of free riding.

b. Differentiation of products

Labeling, organic and "fair trade" products. Discussed in detail in special session, "Coffee trade and sustainable development".

4. FINANCIAL COOPERATION

Subsidize the development of, access to and adoption of environmentally friendly production methods. Particularly important are switching costs. Could be considered compensatory finance for the damage inflicted by the environmentally unsound methods of production which makes possible the low cost of commodities. The unsound methods and cheap products are, in effect, a form of subsidy from the producers to consumers.

Generally agreed that if developed countries ask the developing countries to restrain their use of environmental space, compensation should be provided. In principle, not different if developing countries do this upon their own initiative.

5. INSTITUTIONAL ASPECTS

Providing information and promoting exchange of experiences is fundamental.

Producer cooperation

Developmental institutions to help in analysis and policy making, in consciousness raising, including for cooperation.

International Commodity Organizations same as above, on a commodity basis. Also catalytic role in mobilizing finance for dealing with commodity specific problems, including through the Common Fund (constraints on resource use from the Common Fund).

Commodity Related Environmental Arrangements generating finance for commodity specific problems when no ICA exists.

Bilateral cooperation appears best suited for specific projects and specific implementation problems. It seems more effective to channel bilateral funds through multilateral arrangements -scale economies and inducement to cooperate among producers-.

NGOs for grass roots work and consumer sensitivity.

