

**STRENGTHENING RESEARCH AND POLICY-MAKING
CAPACITY ON TRADE AND ENVIRONMENT
IN DEVELOPING COUNTRIES**

Second Workshop

Los Baños, Philippines
11-13 November 1999

**THE IMPACT OF ENVIRONMENTAL REQUIREMENTS ON
EXPORT PERFORMANCE**

Draft Discussion Paper

Drafted by: ATUL KAUSHIK, Deputy Secretary, Ministry of Commerce, India
Please send comments to: akaushik@ub.delhi.nic.in

STUDY OF THE IMPACT OF ENVIRONMENTAL REQUIREMENTS ON EXPORT PERFORMANCE

INTRODUCTION:

The study of the effects of environmental measures on market access of developing countries has been an inevitable component of the sustainable development debate. Sustainable development is a larger issue encompassing efficient allocation of world's resources, domestic environmental imperatives based on the extent of contribution to national and global environmental degradation, poverty alleviation, creation of additional wealth for environmental protection in developing countries, and so on. Thus, the relationship between trade and sustainable development depends on macro-economic and environmental policies. Even so, increase in trade increases resources, which can make a positive contribution to sustainable development. This is particularly applicable to developing countries, whose responsibility towards environmental protection could be discharged better through increased resources, generated through increased trade, particularly exports.

2. As compared to developed countries, developing countries are more vulnerable to the adverse effects of environmental measures on market access and competitiveness. Various reasons have been identified. Lack of infrastructural and monitoring facilities, limited technology choices, inadequate access to (and relatively more expensive) environmentally friendly raw materials and information are one set of reasons identified. Secondly, small and medium enterprises (SMEs) face more formidable compliance costs and there is an increasing emergence of environmental standards of export interest to them. Thirdly, developing country enterprises lack the skill and technology required for exploiting the positive trading opportunities generated by environmental measures. Fourthly, developing country exports are more vulnerable to market access barriers on account of their scale and sectoral composition. A connected problem is the diseconomies of scale on account of small domestic markets. Finally, while developed markets are more amenable to harmonization efforts, developing countries have widely differing environmental standards in accordance with their national priorities, rendering harmonization both difficult and inadvisable as compared to mutual recognition and equivalence.

ENVIRONMENTAL REQUIREMENTS AND INDIA'S AND OTHER DEVELOPING COUNTRIES' EXPORTS:

3. Environmental requirements cover a broad spectrum and include, inter-alia, charges and taxes for environmental purposes, requirements relating to products including standards and technical regulations, eco-labelling, packaging and recycling requirements for achieving environmental objectives. Such requirements have significant effects on market access of developing countries like India into markets that prescribe them. These effects could be positive or negative. Positive effects, or opportunities, are not always easy to exploit and require expertise, technology and resources that may not always be available. Negative effects relate to expenditure incurred to adapt to new standards etc., to acquire necessary technology and expertise, to non-availability of materials for meeting requirements (like packaging requirements) and the administrative apparatus required in exporting countries.

4. Studies have identified many environmental requirements that need to be addressed for increasing India's export performance. Regulations on dyestuffs affect textile and leather sectors. For example, 20 azodyes are banned, mostly based on rodents' studies showing carcinogenic implications. Standards involving use of certain chemicals based on 'precautionary principle' affect textiles in particular. Presence of formaldehyde, glyoxal and PCP residues in cotton T-shirts led to denial of market access to exporters. The effect is more significant on SMEs, as cost of compliance could be prohibitive. SMEs found it prohibitive to shift from PCP to Busan-30, latter costing seven times the former. They also found it unviable to install effluent treatment plants in the tanneries sector and the Government had to come in to help. Tea exports have been affected due to developed countries' concerns about pesticide content. Although Indian exporters adhered to maximum pesticide residue levels recommended by US EPA, stricter limits (e.g. 0.01 mg of tetrafidon and 2 mg of ethion per kg of tea) imposed in some European countries became insurmountable, there being, apart from other problems, a cost of \$ 234 per analysis.

5. South Africa faces an additional challenge based on the size and importance of their wool industry. Pesticides are used on sheep to control parasites and if not applied correctly can have major environmental implications during scouring (in the effluent created). There are consequently increasing pressures to reduce the level of pesticides on all

wool destined for Europe in particular. A pesticide monitoring programme is in place in South Africa, resulting in a fair management of the problem, but the tightening of standards requires some changes in their farm management practices. The textile industry is facing increasing cost pressures in the market on account of such internationally imposed standards. It would be interesting to study (a) the compliance costs for the programme and (b) the need to restrict the standards to objectives that are relevant for transboundary implications (e.g. effluent treatment may be a local problem better managed by national environmental policies than having international standards).

6. Philippines has had experiences related either to conformance with voluntary environmental management systems or to primarily local environmental problems affecting their trade and needing increased domestic policy support and both leading to higher costs. The most visible is ISO 14001 certification, adopted the export area of semiconductors. Although voluntary, ISO has become a prerequisite for them due to greening of the supply chain and a strong cross border force for allied industries in this business. However, setting up an ISO 14000 environmental management system (EMS) is expensive. The great majority of the ISO 14001 certified companies in the Philippines are transnationals and large companies. At this point, only two small and medium enterprises (SMEs) out of more than two dozen companies are ISO 14001 certified. Small companies are generally hobbled by cost, lack of awareness of benefits of EMS and cleaner production, and lack of awareness of environmental laws.

7. Environmental measures that may affect imports into the Philippines. The Basel Convention is affecting the used lead acid battery recycling industry that used to import used batteries to recover lead metal. With the ban on the import of used lead acid batteries by the Basel convention, the largest company is now forced to obtain its feedstock from the local market, thereby competing with smaller and “informal” recyclers. The operations of these smaller recyclers tend to lack environmental measures. A package of economic and regulatory instruments is proposed to encourage high capacity utilization of licensed smelters and recycling.

8. Philippines is active in domestic environmental policy making. The newly legislated Clean Air Act is affecting foreign direct investment decisions in the country, particularly because of a vague provision banning incineration. This Act does not have its implementing rules and regulations yet. The ban on incineration, coupled with Basel Convention rules is

causing a big disposal problem for toxic and hazardous waste. The Philippines does not have a complete toxic waste reprocessing facility to handle current waste types and levels. In addition, the Clean Air Act's incineration ban, which leads to a ban on the import of incinerators, can become a potential trade issue.

9. The Philippines favours the use of coconut oil ingredients in detergents while prohibiting the use of petroleum-based detergents. Coconut-based coco fatty alcohol sulfonate is considered biodegradable, unlike hard alkyl benzene sulfonate, which is derived from petroleum. This may be misconstrued as a trade barrier.

10. Strict regulations in the food processing and agro products sectors in some developed countries throw up questions not only regarding viability of compliance costs but also on their justification on environmental grounds. Ban on use of all hormones, natural and synthetic, in livestock production by EU is an example. The ban is pervasive, not based entirely on scientific principles and may entail trade restrictions of proportions much higher than the risks that non-fulfillment may create. India may not be affected on this account as there is little use of hormones, but restrictions on milk/milk products from animals not being stall-fed has led to problems in market access. Marine products have been facing market access barriers on account of metallic, pesticide and antibiotic content (e.g. more than 0.2% of benzoic content in shrimps from India compared to 0.6% from elsewhere) or handling, processing and storage regulations, (e.g. strict EU regulations on packaging, treatment systems and transport arrangements). More recently, the development of HACCP requirements by some markets and even HACCP plus requirements by others, viz Europe, additional compliance costs and social problems are emerging. More will be known shortly in this area where UNCTAD is conducting a study.

11. Market access barriers on account of non-product related production methods having little transboundary effects is an emerging area of concern. India has faced unilateral restrictions on import of shrimps harvested without the use of turtle excluder devices. While the WTO has ruled against the restrictions, global environmental concerns are sought to be enforced through unilateral trade measures, which may neither be at the root of the environmental problem nor may be the most efficient means for environmental protection. It may also given rise to protectionist tendencies

much against the understanding of the applicability of non-product-related processes and production methods to the multilateral trading system.

12. One set of regulations having cross-sectoral effects concern packaging materials, product charges, deposit-refund systems and take-back obligations. The European Packaging and Packaging Waste Directive, for example is based, inter-alia on 'polluter-pays-principle' a concept that automatically acts in favour of the local producers, in addition to imposing on foreigners a cost that may not be necessary based on their local conditions. As applied today, these are perceived more as restrictive trade practices than as tools for achieving global environmental objectives.

13. In addition to mandatory environmental requirements, voluntary measures affecting market access of Indian products have also been studied. The most extensively studied voluntary measure is eco-labelling. Costs of compliance with eco-labelling criteria in the textile and leather sectors have been found to be prohibitive, compounded by the difficulties in accessing technologies, developing testing facilities and problems in verification of compliance. For example, cost of compliance with eco-labeling schemes by Indian footwear exporters may be 33% of the export price. Voluntary arrangements emerging in recent times also may need to be analysed for their market access impacts.

14. With regard to eco-labels, India has an eco-label since the last about ten years but it is rarely used by the industry. The Philippines is currently starting an eco-labeling program, starting with ozone depleting substances (appliances and chemical processing) and energy efficiency ratings (appliances). As the eco-labeling program progresses, it is likely that imports will have to deal with this new market force.

15. Environmental policies are evolving rapidly, particularly in the developed world. Consequently, environmental requirements are increasing by the day. It is believed that emerging environmental policies and environmental requirements can, and increasingly will, affect developing countries' market access significantly. This will happen despite the increasing environmental awareness within these countries, and despite international trade rules that seek to facilitate increased market access, particularly for developing countries. It is for the Governments and industry to take advantage of the competitive advantage of their products, particularly

environmentally friendly products, to increase their share in the environment conscious markets on the one hand and to safeguard existing market access against unjust environmental requirements on the other. Some clear examples exist of environmentally friendly products available in developing countries that would need a push through internationally coordinated effort. Jute of Bangladesh and India, and organic foods and organic dyes of India are some examples. There would be many others.

THE WAY FORWARD:

16. Environmental requirements need to be addressed with a sense of urgency by the Indian Government and industry. Aid agencies, bilateral and multilateral mechanisms also have a significant role to play. Clearly, environmental factors play an important role in India's effort to achieve rapid and sustained export growth. The way forward could be identification of sector specific examples of environmental requirements impacting export performance. Some requirements may generate positive spillovers in the form of new trading opportunities, either through niche markets for environmentally friendly products or through competitive advantage arising out of factor endowments. These provide the win-win cases. Other requirements may affect exports adversely, if not addressed properly. Better policy choices may need to be identified here, along with increased awareness on the part of the business community and bilateral and multilateral initiatives.

17. Having identified the sectors and products that enable analyses of the trade-environment interface for export performance, improvements at various policy and practice levels could be horizontally studied. First and foremost is availability of information. Information relating to environmental requirements abroad and available means of meeting them is of paramount importance. This will also involve transparency of requirements, including effective participation in their design and implementation. Harmonization where possible, and mutual recognition or equivalence where not, need to be addressed in this exercise.

18. Second, positive measures like capacity building, technology transfer and technical assistance could be strengthened nationally, bilaterally and multilaterally. Costs of compliance for SMEs need special consideration including collective initiatives for cost effective solutions. Similarly, technical assistance can be focussed on mechanisms that internalize

externalities without putting too much stress on monitoring capacities of the government.

19. Third, infrastructural investment required to mitigate pressing environmental problems could result in a double benefit – capacity building from development point of view as well as broad-based environmental protection measures resulting in better access to developed markets. A study of areas where price and other premiums are more likely to accrue could help in better focusing infrastructural investments.

20. Fourth, standard setting efforts have to be informed by their impact on trade and competitiveness, high cost of adaptation and irrelevance of many foreign standards to local conditions. Where environmental objectives could be met in a more trade facilitative way, unilateral trade measures should be avoided, and challenged through the supremacy of the multilateral trading system.

21. Fifth, international trade rules, particularly those in the WTO, need to be examined. This could include tightening of existing disciplines; clarification of concepts like “precautionary principle” and “risks that non-fulfillment may create”; fully factoring trade principles like non-discrimination, least trade restrictiveness and special and differential treatment; and guidelines for dispute settlement, specially in the wake of emerging jurisprudence.

THE TRADE AND ENVIRONMENT DEBATE

Stockholm 1972

UNCED, Agenda 21, 1992

GATT-EMIT Group, WTO-CTE

CTE Work—two clusters

- Market Access
- MEAs

CTE—important conclusions

- Trade and Environment mutually supportive
- Increased market access for developing countries
- Appropriate domestic environmental policies
- Further integration

INDIA

Exports----- US\$ 34 billion

Growth----- Close to 20% for 3 years

Dwindled to 1.5% in 1997-98

Stagnant in the current year?

Main Exports

Textiles (24%) Gems and Jewelry (15%)

Chemicals (13%) Agriculture (12%)

Leather (4%) Marine products (3%)

Ores & Minerals (3%) Plantations (2.5%)

Items facing environmental requirements

■ Agriculture and food products

■ Textiles

■ Marine products

■ Leather and manufactures

■ Plantations

A SIGNIFICANT CORRELATION BETWEEN
ITEMS OF EXPORT INTEREST TO INDIA AND
ITEMS WHERE ENVIRONMENTAL
REQUIREMENTS ABOUND

ENVIRONMENTAL REQUIREMENTS

MAIN TYPES

- Charges and Taxes
- Product related standards
- Conformity assessment requirements
- PPM related including eco-labelling, recycling, take-back obligations etc.
- MEA related
- Other voluntary arrangements

WHAT AFFECTS INDIA MOST

- Product related standards
- PPM related requirements
- Conformity assessment procedures
- ???

IMPACT?

STEPS?

- Government
- Industry
- Buyers
- Multilateral efforts
- ???

POSITIVE SPILLOVERS

TYPES OF SPILLOVERS

- Comparative Advantage
- Environmentally Friendly Products
- Others?

MEANS OF EXPLOITING POSITIVE SPILLOVERS

- Assessment of positive spillovers
- Capacity assessment (scale, sector etc.)
- Technology
- Technical Assistance
- Incentives
- Others?

NEGATIVE EFFECTS

TYPES OF NEGATIVE EFFECTS

- Lack of export opportunities
- Shift in export product
- Compliance costs
- Many others

MEANS OF ADDRESSING NEGATIVE EFFECTS

- Differential assimilative capacities
- Differential environmental standards
- Scale effects
- Small and Medium Enterprises
- Technology
- Technical Assistance
- Standard setting – national and international
- Bilateral, regional and multilateral arrangements
- Mutual recognition and equivalence
- Addressing PPMs
- Addressing unilateral action – shrimps case
- Others?

WAYS FORWARD

- Information, Transparency
- Equity, Equivalence
- Capacity building
- Technology transfers
- Infrastructure development
- Participation in standard setting
- WTO Rules
- Others?