

GENERAL AGREEMENT ON

TARIFFS AND TRADE

RESTRICTED

TRE/W/3

29 September 1992

Special Distribution

Group on Environmental Measures and International Trade

AGENDA ITEM 3: PACKAGING AND LABELLING REQUIREMENTS

Note by the Secretariat

This note has been prepared in response to the Group's request at its meeting on 9-10 July 1992 for the Secretariat to prepare a generic typology of packaging and labelling requirements. At that meeting, delegations were invited to submit to the Secretariat their experience with packaging and labelling requirements, including at the local, regional and federal government levels and in the private sector. The Secretariat has received one such submission which is included in this note. The Note primarily, however, is based on readily available information, as was suggested at the July meeting.

Packaging and labelling requirements are becoming increasingly important tools of environmental policy. They are being implemented at the national level as well as at the sub-federal, regional and local levels. Although such requirements can be utilized together, as mutually supporting elements of waste management policies, they can also be utilized separately as policy instruments distinct in their application, objectives and impact.

This note addresses first packaging then labelling requirements, pointing out, however, instances where the two requirements are used together for the achievement of an environmental objective. Section III of Part I presents a general framework of types of packaging policy instruments. Section IV categorizes various existing requirements according to this framework. In Part II, two broad categories of labelling legislation are discussed. One category includes programs designed to promote products which are determined to be environmentally more friendly than other functionally and competitively similar products. For the purposes of this note, these programs are termed "positive labelling programs" and discussed in Section II. The other category includes other programs which may be designed to highlight certain aspects of a product such as its recyclability or biodegradability, or which may indicate the dangers of a product (like cigarettes). These are termed "other labelling programs" and are discussed in Section III.

Part I: Packaging

I. Introduction

Packaging, whether used at the producer, distributor, retailer or consumer level, has become increasingly targeted as an area in which wasteful and inefficient practices and policies need to be corrected. At the same time however, it is recognized that packaging, at all stages of a product's life-cycle, performs important and necessary functions. It permits easier, more automated methods of handling products through standardized container sizes; it protects products from tampering, theft, adverse weather, and rough conditions, whether in transit, storage, or sale; it protects consumers and handlers from hazardous products; it acts as a medium for communication and advertising purposes and provides important, often required, information and instructions about the product; and it extends the life of some products such as food and beverages and permits their processing, handling and transportation.¹

Hence waste management policies targeted at packaging must strike a balance between maintaining the necessary and important functions of packaging while addressing inefficiencies and wasteful practices and policies. The need for the latter has arisen for a variety of reasons: the disposal of waste, of which packaging is a significant component, is becoming a growing problem in the face of limited physical (landfill), technological, and financial capacities; litter is a growing problem; ozone depletion is now recognized as associated with certain types of foamed plastics packaging and aerosols; air pollution may be caused by harmful emissions during the manufacture or disposal of packaging; water, sea and ocean pollution may be caused by waste disposal directly into bodies of water or ground water tables or indirectly through landfills that may leak harmful substances; and depletion of non-renewable resources, some of which are used during industrial, commercial and other activities such as disposal, transportation, and, to a limited degree, the manufacture of packaging.²

Waste management policies are implemented to achieve one or more of several objectives: waste reduction at the source; re-use of products; recycling of materials; energy recovery; and reduction of the amount incinerated and landfilled. In deciding which objective should be pursued or prioritized, an analysis should be conducted of various elements including costs of production factors, costs of production processes, related activities, collection and disposal of waste and, as far as possible, other relevant external effects. Various policy instruments can

¹"Reduction and Recycling of Packaging Waste, Draft Report" (ENV/EC/WMP(91)5/Rev.1), Waste Management Policy Group, Organization for Economic Cooperation and Development, 5 June 1992, p.15.

²"The Potential Impact of Environmental Legislation on Export Packaging from Developing Countries", No. 35, International Trade Center, October 1991, pp.4-5.

be utilized to achieve these objectives, and the question³ of which would be most efficient in this regard would have to be addressed.

Policies aimed at reducing waste at the source, which are intended to force industry to reevaluate and change its production and marketing strategies and to influence consumers to adopt new ways of using products, are generally a priority for the achievement of long-term solutions for general waste reduction, given that their effectiveness is not immediately apparent. Instead, policies aimed at re-use and recycling of packaging are being increasingly relied upon to attain more immediate, short-term⁴ reductions in the contribution of packaging to the waste stream.

Waste management policies designed to reduce the amount of packaging waste in the waste stream can rely on a variety of policy instruments, or what are often termed "packaging requirements", to achieve their goals. These policy instruments can be categorized according to a framework of variables, the broadest being the regulatory approach within which the instruments are taken, and then the instruments or requirements themselves. The purpose and context specific to each instrument can then be taken into account to determine the effectiveness and economic and environmental efficiency of the instrument. In this note, such a framework is outlined drawing extensively from work done by the OECD in this area.⁵ Various existing waste management policies that focus on packaging requirements are then categorized according to this framework.

II. Packaging Materials

Packaging consists mainly of four types of materials: paper/paperboard, glass, metal, plastic (including PVC, polyvinyl chloride, and PET, polyethylene terephthalate). Wood can also be considered a material for packaging, particularly in the field of transport packaging mainly for exports. However, its contribution to the packaging waste stream in most industrialized countries is not extensive and is declining.⁶

³"Guidelines for the Application of Economic Instruments for Managing Packaging Waste", (ENV/EPOC/GEE(92)1), Group on Economic and Environment Policy Integration, Organization for Economic Cooperation and Development, 21 May 1992, p.34.

⁴Idem, International Trade Center, pg.1.

⁵See "Reduction and Recycling of Packaging Waste, Draft Report"; and "Guidelines for the Application of Economic Instruments for Managing Packaging Waste", OECD.

⁶Idem, International Trade Center, pp. 6-8; and "Guidelines for the Application of Economic Instruments for Managing Packaging Waste", OECD, pp 8-10.

Paper/paperboard is probably the most widely used material, in particular corrugated containers. Its main advantages are low cost, excellent printability and promotional potential, its renewability particularly in raw material form, and its biodegradability. Recycling rates are relatively high; however certain problems related to the coated and laminated form of the material must be overcome.

Glass is probably the second most popular packaging material as it provides excellent barrier, aesthetic, longevity qualities and is heat resistant. It is easily recycled, is easy to clean and therefore excellent for refilling requirements. However it encounters competition from types of plastic packaging which may be cheaper; initial production of glass from sand and soda ash requires a high initial energy input.

Metal packaging consists mainly of steel and aluminium. Tinplate has been the most important form of steel packaging but, like glass, has been declining in use under competition from cheaper and lighter plastics and aluminium. Although recycling of steel packaging on a large scale is only just beginning, its prospects appear relatively good as it can be cheaply and easily sorted from mixed wastes using magnets. Although aluminium requires considerable initial energy for extraction, it can be quickly converted to packaging form and, like steel, has properties which make it a desirable form of packaging. Given that the energy needed to recycle aluminium is very little and it has a high scrap value, it is an ideal material for recycling as is the growing trend.

Plastics are growing in packaging use as they provide the advantages of other types of packaging but are lighter and often cheaper to produce. Because plastic packaging consists of five different materials (polyethylene terephthalate (PET), polyvinyl chloride (PVC), polyethylene (PE), polypropylene (PP), and polystyrene (PS)), efficient recycling is often difficult; incineration to produce energy could be more efficient. Each type of plastic must be sorted manually from general waste and technologies and markets for mixed plastic recycling must be developed. For example, PVC, which itself can be readily recycled if collected separately, would adversely affect the processing and quality of other recycled plastics, particularly PET, even if present in very small quantities. In addition, incineration of PVC can emit hydrochloric acid gas and dioxins if incinerators are not fitted with the necessary technology. For these reasons, some countries have called for the complete ban on the use of PVC in packaging.

The use of PET for beverage containers, although relatively new, is growing. It is the most extensively recycled plastic at present as it is easily identified by consumers and therefore easier to collect, has a high scrap value, and there are well developed markets for end products in which it can be used in its recycled form, such as carpet fibres and fibrefill.

III. Framework

Policy instruments can be broadly categorized as: "command-and-control" regulations and voluntary recommendations. The first category, which includes such instruments as bans or other types of restrictions, is legally enforced through sanctions or other punishments and leaves no room

for discretionary action by the target groups involved. The second category includes targets or other recommendatory instruments which are not enforced through threat of punishment, but depend on the cooperation and willingness of the target groups involved. Both categories can also include economic policy instruments which are often the essential elements of such a mandatory or voluntary scheme.

Economic policy instruments aim primarily at internalizing the externalities of packaging production, use or disposal, and influence behavior through the price mechanism. Their advantages are that they can correct for market failure and fit neatly into the cost-benefit approach as well as raise revenue. However a disadvantage is that, since costs may be difficult to estimate, it is not always possible to obtain the correct price. Such instruments can be identified as the following:

- 1) Product charges - These are output taxes as surcharges on the price of products used for packaging. They are meant to internalize external effects from the use of packaging and would be related to the potential waste disposal and pollution impact. For example, products made fully from recycled materials could be exempted and products made partly from recycled materials and refillable containers could face a lower or no charge. Such charges would presumably be paid by the producer and be reflected in higher prices to the consumer.
- 2) Deposit-refund systems - These are product charges paid by the consumer but refunded if the product is returned to the retailer. The difference between a product charge and this instrument is that the former may influence the behavior of producers while the latter may influence consumers who are induced to return the empty packaging for reprocessing.
- 3) Virgin materials tax - This is an input tax on raw materials used for the production of packaging products. It would be related to the damage done by production and consumption of the packaging and is aimed at reducing the use of virgin materials in favor of recycled materials.
- 4) Waste disposal charges - These are charges on the cost of finally disposing of the waste. They would presumably represent any external costs not already incorporated in traditional costs of waste collection and disposal.
- 5) Marketable permits - These could be envisaged to support recycling or returned packaging targets or standards. Producers who exceeded such targets of standards could earn credits which could be sold to other producers who were, temporarily, not able to comply.
- 6) Recycling credits - These are payments to those who reuse containers or recycle materials, saving them from waste disposal. They should be equal to the saved costs of waste collection and disposal and may be more appropriate at the local level, in situations where municipal waste collection and disposal is financed from the general budget.

Economic instruments should generally be applied so that market failures are corrected in a direct way. The OECD papers⁷ suggest that the instruments directly related to packaging are product charges, deposit-refund systems and marketable permits; however there has been no practical application of the latter instrument in this field. They further suggest that the other instruments, waste charges, recycling credits, and virgin material taxes, have only an indirect impact on packaging management and are, therefore, not as effective. The first and second deal with waste in general of which packaging is one element and the second affects the inputs into the packaging industry.

IV. Existing Waste Management Policies That Focus on Packaging⁸

Most environmental regulation of packaging has focused on carbonated beverage containers. The most important methods of regulation have been the establishment or further strengthening of deposit-refund systems, taxes or reduction targets. While some legislation, particularly regarding beverage products, is product specific, other legislation more generally applies to the type of material used in the beverage packaging. In some countries regulation has expanded to cover additional liquids and products in other areas, some even focusing attention on "all packaging".

The latter, however, is not easy to regulate because "all packaging" is made of many different materials, comes from many different sources, and comes in many forms, some of which are widely and easily recycled, others are not. Because of the many uncertainties surrounding how best to regulate packaging, many countries are simply requiring producers and distributors to take back materials or meet recycling target rates, leaving them or the industry to figure out how. Also, regarding toxins in packaging, some countries are banning the use of certain materials (particularly heavy metals and PVC) across the board, with industry left to find appropriate substitutes. The next few years should bring about the development of a wide variety of methods to reduce and recycle packaging waste. However, if they are not successful, it is likely that governments will take further, more severe, and stricter action in this field.

⁷Idem, OECD. For detailed explanation on the implementation and use of product charges and deposit-refund systems, see "Guidelines for the Application of Economic Instruments for Managing Packaging Waste", OECD pp 41-60.

⁸Except where otherwise noted and where information was drawn from country submissions to the GATT Secretariat, information in this section is drawn from: "Reduction and Recycling of Packaging Waste, Draft Report", OECD; Idem, International Trade Center and various case studies prepared for the group of Economic Experts of the Organization for Economic Cooperation and Development.

The framework outlined in the previous section can be used to describe, in more detail, some existing waste management policies which focus on packaging. This description does not attempt to be comprehensive, but presents an initial overview of packaging policies in nineteen countries and two regional organizations.

A. "Command and Control" Regulations

(i) Bans

Six countries have imposed bans on certain materials in all or parts of the country. In parts of one country, legislation was negotiated with industry that bans, within two years of enactment, the introduction of lead, mercury, cadmium or hexavalent chromium in packaging or packaging components during manufacturing or distribution. Within four years, the incidental presence of these metals in packaging and packaging components must not exceed 100 parts per million. The legislation covers inks, dyes, pigments, adhesives, stabilizers, and any other additives, in addition to the packages themselves.

Another part of this country, in an effort to ban certain types of non-recyclable packaging, has banned composite aseptic packages. One metropolitan area in this country has banned containers that are not refillable or recyclable; and several local governments have banned specific uses of polystyrene (PS). Such efforts have in general stimulated industry efforts to demonstrate the recyclability of specific packaging materials.

Also in this country, a coalition of environmental groups has developed model legislation on packaging that has been introduced, with only slight variations, in some parts of the country. The legislation would ban the sale of packaging that was not "environmentally acceptable". In order to be considered environmentally acceptable, packaging would have to be: 1) refillable or reusable a minimum of five times; 2) manufactured from at least 50% recycled material; or 3) made of a material that is "effectively recycled" in that part of the country (defined as having achieved a collection rate for recycling in this area as high as 65%). The introduction of such legislation has put continued pressure on the packaging industry to increase efforts to recycle packaging waste.

A number of other parts of this country have legislation restricting the use of all types of non-biodegradable packaging; one specifically focuses on the plastic ring connectors for some beverage containers such as aluminium or glass beer or soft drink containers.

Another country⁹ bans the use of synthetic packaging materials and requires the use of packaging made of jute for a specific percentage of the supply and distribution of certain commodities. These are food grains: 100%; sugar: 100%; fertilizer: 75%; and cement: 50%.

⁹"Developments in Regulatory Measures Affecting Packaging", Committee
(Footnote Continued)

Another country bans heavy metals in only part of the market and also bans plastic containers unless their disposal will meet standards for five hazardous substances (lead, cadmium, bromine, fluorine, and chlorine). This essentially bans the use of PVC containers. Beverages, in general, are only authorized to be sold in refillable or recyclable packaging.

A third country also bans steel and aluminium cans for beer and soft drinks and requires that these beverages be sold in refillable bottles. Non-returnable plastic containers, except PVC, are allowed for "still" drinks including milk. (Although there is no outright ban on PVC, a voluntary ban is encouraged and is supported by mandatory phasing-out targets; the quantity of PVC packaging must be reduced 85% by the year 2000).

Finally, a fifth country bans one-way, but allows refillable, PET bottles. (This country also encourages a voluntary ban on PVC as a packaging material).

(ii) Mandatory Recycling or Recovery Laws

In parts of one country, mandatory recycling laws have been enacted. They generally require households to separate newspapers and beverage and food containers from the rest of trash for separate collection and recycling. Many are then serviced by curbside collection of recyclable material. In one program households pay a fee that increases as they dispose of more or larger containers of waste while curbside recycling service is free, thereby encouraging recycling. Evidence shows deposit-refund systems, however, collect a higher percentage of the targeted materials and the quality of the material, in terms of recyclability, is better. Also, several parts of this country have enacted laws requiring minimum recycled content in various types of packaging, such as glass containers.

Two proposed regional programs are based on mandatory recycling and recovery targets. One has been approved in its final form at one level of administration and is likely to be adopted in Autumn 1992. Member countries would have 10 years from the date of enactment to fully implement it. The legislation would tighten existing regional guidelines by reducing the environmental impact of packaging, and removing the potential for disharmonization among its member countries due to the lack of adequate regional rules. It would establish the principle that raw material suppliers, producers, consumers and retailers - not governments - are

(Footnote Continued)

on Commodity Problems, Intergovernmental Group on Jute, Kenaf and Allied Fibres, Food and Agriculture Organization of the United Nations, August 1992, pp. 8-9.

"responsible" for packaging waste. Under the legislation, the preferred solutions to reducing the amount of packaging waste are, in order of preference: 1) minimization of the packaging used in particular products; 2) recovery and recycling; and 3) final disposal in landfill sites.

Packaging from all sectors (industrial, office, commercial, service, and households) would be covered. Within five years of implementation the member countries are required to set up appropriate systems to collect and separate packaging waste from the consumer, enabling them to ensure that it is effectively re-used or recovered. All reusable and recoverable packaging will bear a label showing that the used packaging or the packaging waste is subject to established return and management systems, and that the packaging itself and the provisions for the management of used packaging and packaging waste comply with the legislation.

Member countries must ensure that 90% of all used packaging material is "recovered" through recycling, composting and incineration to produce energy. Of this, 60% must be recycled. The legislation allows the "value" of any product to be recovered by the most efficient means possible (valorization). In addition, limits are set on the use of heavy metals in packaging.¹⁰

Another regional organization has prepared an action program for packaging which is to be presented for final approval in Autumn 1992. The following elements are likely to be included: 1) reduction in the weight of packaging by 10% by the year 2000 as compared to the 1990 level; 2) a target of at least 70% (by weight) of packaging waste to be reused or recovered by the year 2000; 3) a maximum of 30% of the weight of packaging waste to be incinerated or disposed of in landfills by the year 2000; and 4) development of regional guidelines for the environmental assessment of packaging.

(iii) Deposit-Refund Systems (DRS)

Eight countries have mandatory deposit-refund systems in all or part of the country. All apply to beverage containers and one country's program extends to detergent and paint containers. This latter program constitutes one element of comprehensive legislation on the management of packaging waste, and is designed to create an incentive for consumers to return packaging to the stores from where they were bought. Another of these countries applies a DRS to refillable plastic bottles, but allows the use of non-refillable bottles without a deposit. In parts of another country a DRS is required for beer and soft drink containers and in another country it is required for alcoholic drinks only.

¹⁰ "Europe Environment", Europe Information Service, No. 393, September 8, 1992, supplement, pp. 1-27.

Another of these countries applies a DRS for beer, wine, other alcoholic beverages, and soft drinks, with the amount dependent on the size of the container. It also requires a deposit for the crates in which such beverages are generally distributed. This system has contributed to the predominance of refillable containers in this market for soft drinks and alcohol.

Another of these countries uses DRS's in order to enforce and meet government-stipulated return rates. It applies a DRS to glass bottles for beer and carbonated soft drinks, as well as on the reusable crates in which the bottles may be sold. It has resulted in return rates of 98-99%. A small percentage of the beer and soft drinks market are sold in aluminium cans. These have also been subject to DRS in order to meet a return rate of 75%. Initially the deposit amount proved insufficient to meet the targeted rates so it was doubled. This increased the return rate from 60% to 83% in three years. This mandated return rate will, however, rise to 90% in 1993. In addition, wine and liquor containers, many of which originate outside the country, are subject to a DRS. These containers must be returned to national liquor stores, of which there are relatively few. Finally, faced with an impending prohibition on the use of disposable PET containers, affected industries in this country agreed to replace them with refillable PET containers which will also be subject to a DRS in order to meet a return rate of 90% by 1993.

In parts of another of these countries, retailers are required to pay a specified refund value for returned beer and soft drink containers; wholesale distributors of the beverages are also required to pay refunds to retailers. The deposits are initiated by the wholesale distributors of the beverage, not by the bottler or brewer, and the used bottles and cans are returned to the distributors, not to the bottlers or brewers. In several cases, the requirements have recently been expanded to cover liquor, wine, or wine coolers, and in one case all beverages except dairy products are covered. Refunds are generally small, and return rates have been estimated at between 72% and 98% of the containers. The vast majority of the containers recovered are recycled rather than refilled and have value as scrap material.

One part of this country has an approach which avoids retailers and distributors by channeling returns through recycling centers or curbside collection programs. It may be more efficient than the traditional refund system because it eliminates the requirement that containers be returned to distributors and requires less sorting of returned containers. It also facilitates the redemption of containers by curbside recycling programs. In this program, manufacturers of most beverage containers pay a fee per container to a local recycling fund. When the containers are returned, the fund pays the fee to the recycling center or program which presents documentation of having handled the container; this fee may be passed on to the individual or group returning the containers. Small retailers are exempt from handling returned containers and large retailers may be exempt if they can demonstrate that there is a recycling center located within a one-half mile radius of their store. Other retailers have generally contracted with recycling firms to establish redemption centers or install reverse vending machines in store parking lots.

In order to ensure that the container industry pays the full cost of recycling, the law requires a "processing fee" to be calculated annually for each type of container. This fee is the difference between the average cost to recyclers of handling returned containers and their scrap value. The container manufacturer must either guarantee a scrap price equal to the cost of processing or pay the local fund a processing fee equal to the difference between the two. This has been shown to create artificially high prices for some recyclables and provide incentives for recyclers to import used beverage containers from outside of the local area; however redemption of these is illegal. Subsidies are also paid from the local fund to low-volume recyclers to help ensure long-term operation of convenient recycling locations.

A ninth country has a voluntary DRS on refillable bottles for beer and soft drinks, operated by agreements among the beer and soft drinks industries and the retailers involved, but empowers the Minister of Environment to set up a mandatory program if the parties involved fail to do so. Beer and soft drinks are prohibited from being sold in anything except refillable packaging which carries a deposit and where a considerable part of the packaging, after being emptied by the consumer, is returned for renewed filling. This applies to imported beverages which can, however, be sold in packaging without prior approval provided that the packaging is not made of metal, and a DRS is established with the deposit amount fixed according to the market price. In this country, the DRS operates by the consumer paying a deposit to the retailer who must also pay a deposit to the supplier. The retailer decides the amount to reimburse the consumer which, however, must be the same as the amount he pays out and collects from the supplier.

Two countries require DRS if certain reuse or recycling targets are not met. In one, the DRS would apply to all beverage containers if recycling rates of 90% for glass, metal, and plastic beverage containers are not met through industry efforts by 1993. The amount of the deposit would vary according to the size of the container. In addition, mandatory deposits would be required for one-way containers made of several types of material if, despite measures to reduce it, the "quantity of waste"¹¹ arising from the specific material continues to increase. The retailers concerned would be responsible for the recycling of the returned empties. Upper limits for the quantity of waste arising from beverage packages are set, in tons, for 1991 at 26,400 for glass, 3,200 for PET, 1,000 for aluminium, 500 for steel; for 1992 at 25,400 for glass, 2,800 for PET, 800

¹¹"Quantity of waste" is defined in the legislation as the difference between the total quantity of one-way beverage packages put into circulation by manufacturers and importers in a given year, and the total quantity of one-way beverage packages recycled in the same year.

for aluminium, 500 for steel; for 1993 at 24,200 for glass, 2,300 for PET, 800 for aluminium, and 500 for steel. Manufacturers and importers are to make annual returns on the literage of beverages they have put into circulation in the preceding year, along with a breakdown on the size of the packs and the materials used. They are also required to supply figures for the amounts of materials recycled during the period.

The other country would apply a DRS if increasingly stringent targets for recycling are not met. It would apply to plastic and metal beverage containers (PVC, PET, aluminum and other metal containers) for 15 different items, including milk and milk products, edible oils, fruit and vegetable juices, bottled water, beer, soft drinks, wine, vermouth, cider, liquor and spirits, vinegar, and four non-edible liquid products (detergents, shampoos, bleach, and fabric softeners). The targets increase so that by 1996, 70% of production of plastic containers and 60% of production of metal containers will have to be recycled. If not, then the containers will be subject to deposits, the amount of which will depend on the type and volume of the container.

(iv) Product Charges

Seven countries have mandatory product charges or taxes on various products and materials in all or part of the country. One country taxes beverage packaging made of glass (with the exception of those for milk and wine) and non-refillable plastics containers according to their size. The revenue collected is to be used for further waste management. In parts of another country non-refillable containers are charged or taxed.

Another of these countries has a very extensive system of product charges in order to minimize the consumption of one-way packaging, to promote recycling and reuse, and to market products in a concentrated form. The system initially applied to packaging for wine, spirits, beer, soft drinks, juice, must, vinegar, sweet oil and methylated spirits, and was extended in 1988 to include spring water and milk cartons containing more than 9 cl. Another recent law ensures the economic advantage of using returnable packaging for beer and soft drinks, which must be marketed in returnable bottles only. It stipulates that a charge is levied only on new or imported packaging whereas cleaned, returned packaging is not charged.

The charges apply to both disposable and reusable packaging, and are levied on the original manufacturer. Disposable packages end up more expensive and an incentive is created to use reusable packaging because users of disposable packages pay the full charge each time and users of reusable packages are charged only once with the cost amortized over the number of uses.¹²

¹²This scheme can illustrate some of the inherent problems with such product charge systems. In an open system (supplier - retailer - consumer)
(Footnote Continued)

Another country taxes soft drink containers per liter of beverage. A higher rate is charged on non-refillable glass bottles and cans than on soft drink containers made of other materials. Glass and metal beer containers are also taxed at the same flat rate. Exemptions to this system are given if: 1) a DRS, of a minimum value depending on the size of the container, is established; 2) if consumers are able to return containers at all shops selling the beverage; and 3) if the organization seeking the exemption meets stipulated return rates for its containers (75% the first year, 85% the second year, 90% the third year, and 95% within four years of instituting the system). Failure to meet any of these conditions results in retroactive application of the taxes. The conditions have led to an exemption from taxes for refillable containers, which continue to dominate this beverage market. Non-refillable containers are used almost exclusively for imports, which, as a result, are substantially more expensive than domestic products. This country also taxes plastics containers at a flat rate which may be raised if industry fails to set up appropriate systems for recycling.

Another country has legislation requiring separate collection and establishing recycling targets for beverage containers to be achieved by 1993. If the recycling targets are not met, a product tax, varying according to the size of the container, will be imposed on non-refillable containers as of April 1993. The recycling targets are 50% for glass and metals, 40% for plastics, mixed materials and extrusions. In the case of plastics, at least half of the 40% must be recycled; the rest may be burned if the energy is recovered. Industry is required to pay for the separate collection of beverage containers, even if the actual collection is organized by the local community.

This country also has a tax on plastic shopping bags, per bag. In addition, the bag must be made of polyethylene or biodegradable plastic material, must be of a dimension enabling it to be used subsequently as a garbage bag, and must carry a statement indicating this possibility. This resulted in a tripling of the price of plastic bags and consumption fell 40%. In December 1991 the tax was broadened to cover all shopping bags in order to eliminate preferential treatment of paper and biodegradable plastic bags.

(Footnote Continued)

- container - bottle washing-supplier) the price of washed bottles must take into account the costs of collection and cleaning. This price must be less than that of new bottles given that returned bottles compete with new bottles, however unlike the washed bottles, they are charged. Thus packaging charges may render used and new bottles more expensive than cardboard containers and thus make their use less attractive. The charges may ensure the collection and use of used bottles but, on the other hand, prevent extended use of returnable packaging in light of the less expensive one-way or cardboard packaging. However, the structure of the system may also encourage manufacturers to establish closed refund systems (supplier-retailer-consumer) which, from an environmental point of view are preferred.

Another country has a tax scheme on non-returnable beverage containers which is implemented jointly with its DRS on beer, wine, other alcoholic beverages, and soft drinks. Together, these schemes have led to a predominance of refillable containers in this country's market for soft drinks and alcohol. (Also, refillable PET containers have now been introduced in this market for soft drinks and will replace returnable PET and refillable glass containers). According to this tax scheme, producers who want to introduce a new type of container or establish a new system to collect containers can apply for a permit from the national authority to do so. If they do not have this permit, their containers are considered non-returnable and are subject to quite high charges. The taxes, per container, are higher for soft drinks and beer, than for wine and spirits. Taxes for other drinks, such as uncarbonated soft drinks including fruit juice, are lower. Containers for milk and milk products are not taxed because there is virtually no use for returnable containers for these beverages. A recent application to the national authority is pending to establish a DRS which would replace the existing tax for aluminium cans.

Finally, another country taxes all beverage packaging except that for milk, and containers made of paper or carton. However it has been shown in this country that the amount is too low to have any significant influence on the markets. In 1990 a government-sponsored group proposed a considerable increase in taxes on non-refillable bottles not included in this country's DRS; however this proposal is still pending.

(v) Waste Charges

One country has instituted a waste charge per ton of waste deposited or incinerated in local disposal arrangements. As of 1990, disposal methods are assigned by local authorities for waste in their area. The charge (which has increased threefold since it was first instituted) applies to all waste which is placed at registered plants as well as other kinds of waste for which the local authorities are to find ways of disposal. The charge on waste, which will be recycled when leaving the registered plant, is to be paid when the waste is brought to a registered waste incineration or deposit plant, and will be refunded. It is administered and collected by customs authorities and it remains to be decided whether different charge rates should be introduced for, for example, burnt or deposited waste. Recyclables are not charged, but it is unclear whether this reduces packaging consumption or only encourages sorting.

Packaging waste from private households is in principle charged, however each single household is not directly faced with a charge. Each household pays a fixed fee, no matter the quantity of waste, for local waste collection which is charged when the waste is brought to a waste treatment plant. Households are thus not encouraged to minimize the quantity of packaging waste although future consideration is being given to general weighing of household waste and the establishment of a related paying system.

The purpose of the charge is to encourage recycling and promote the use of cleaner technologies which produce less waste and generally to minimize the quantity of waste for incineration and deposit. It's basic purpose is not to regulate the use of packaging consumption but there is an assumption that a connection exists between the waste charge and packaging consumption. However, it is viewed as having a limited influence on the consumption of consumer packaging because it is a charge on emissions.

(vi) Government-Industry Agreements

Two countries have negotiated binding agreements between the government and industry which are based on one or more of the various policy instruments outlined in the framework. One country sets terms with which if industry fails to comply, can be enforced in court or, if necessary, enforced through parliamentary legislation. The agreement sets packaging targets including no increase in the amount of packaging generated; the elimination of landfilling for packaging waste; an increase in recycling from 25% of packaging to 60% by 2000; and qualitative waste reduction by removing such harmful materials as heavy metals and PVC from the waste stream.

The agreement was further detailed in 1991. It reaffirmed the earlier targets and asked that industry reduce by 1997 the quantity of new packaging put on the market by a minimum of 3% below the level of that kind of packaging in 1991, and take back 90% of packaging materials by 2000. Its objectives are to develop new packaging technology to reduce the volume of packaging; avoid the use of additional and multiple packaging; encourage the sole use of materials which cause as little damage as possible to the environment; avoid new packing materials which hinder reprocessing; replace materials in packaging which can not be reprocessed easily; and establish priority for product reuse over material recycling.

Specifically, it set a recycling rate of 75% for aluminum cans, to be achieved within one year or else a DRS would be introduced on them; ended the provision of free carrier bags in supermarkets; and reduced the weight of the external paper used for coffee packaging and for tea boxes. It called for a transition to exclusive use of solvent-free inks for packaging for vegetables and fruit, and a reduction of the use of PVC as packaging material by using less environmentally-damaging alternatives. Regarding product reuse, the legislation called for a plan of action for the reprocessing or reconditioning of drums and big bags for industrial use; the introduction of a DRS on all one-way bottles made of plastic for carbonated mineral waters and soft drinks; the start of the sale of machine dishwasher detergents in bottles containing 25% percent recycled plastic; the start of a campaign, targeted at households, to keep dry cardboard and paper packaging for separate collection; an increase of the recycling capacity of foil material by 10,000 tons per year; and an increase of the recycling capacity for soft drink bottles made of PET used in households, by about 4,000 tons per year.

Also, the legislation provides for tests of several collection systems for recyclables in different communities to determine which is best; and requires product analyses for 27 types of packaging by December 1992 to determine whether reusable packaging should replace one-way in specific categories.¹³

Another country has introduced comprehensive packaging legislation based on the agreement and involvement of all actors in the management of packaging waste. It is based on the principle that those who create packaging are responsible for taking it back. This includes, the packaging industry, producers, distributors and retailers who have agreed to cooperate in fulfilling the objectives of the legislation. The legislation states that packaging should 1) in terms of volume and weight be reduced to a degree necessary for the product; 2) be refillable as far as it is technically and economically feasible; 3) and be reprocessed¹⁴ if refilling is impossible.

This legislation distinguishes between three types of packaging: packaging for transport, primary packaging and secondary packaging. Transport packaging is packaging used exclusively for protecting the product on its way from the producer to the sales outlet. Secondary packaging is material which is, for example, used to protect a product against theft or to apply additional advertising and which can be removed by the consumer at the store without reducing the possibility to transport the product to its final destination and protect it until it is consumed. Primary packaging is packaging which the consumer needs to transport and protect the product.

Transport packaging is required to be taken back after use by the manufacturer of the packaging or the user for reuse or "material reprocessing" outside the public waste disposal system by December 1 1991. Secondary packaging should remain at the point of sale from where it is to be returned for reuse or "material reprocessing". Wholesalers are required to supply, at the point of sale, appropriate containers which would enable consumers to remove the packaging and leave it at the store. This is to be implemented by April 1 1992. Primary packaging material must be taken back by the stores in or near the point of sale and must then be returned to the manufacturer of the product or the manufacturer of the packaging which is

¹³"Idem, Food and Agriculture Organization of the United Nations, pp 2, 4-5.

¹⁴Reprocessing in this legislation is to mean only "material reprocessing" and not "thermal reprocessing" such as the burning of packaging material. This is an important distinction and is one attribute of this legislation which renders it unique among such legislation.

required to reuse or recycle it. The stores are only required to accept packaging material of products which they themselves supply. This latter requirement will be supported by the introduction of DRS for primary packaging to create an additional incentive for consumers to return packaging to the stores. The DRS will apply to all containers of beverages, detergents and paints and will range in value.

The legislation has also set targets: by 1995 at least 50% of all packaging must be collected and from then on the collection quota should increase to 90% for each packaging material such as glass, paper, metals, plastics and other packaging material; from 1995, quotas for the sorting of glass, ferrous materials and aluminium should reach 90% and for all other packaging materials 80%. An existing return system for beverage bottles must be conserved, however the percentage of bottles returned must not drop below the current 72% except for milk for which 17% is fixed.

While there are no exceptions for the return requirements for transport and secondary packaging, the legislation offers industry and shops the possibility to substitute the DRS for primary packaging by setting up an alternative system for regular collection, sorting, and reprocessing of packaging waste which would be parallel to the existing municipal waste management system and administered by the industries which are involved in the production or use of packaging material. This allowance is an attempt to promote the active participation of the private sector in the management of waste packaging.

Such a system was organized in September of 1990 by corporations from the retail industry, the packing and filling industry, the producers of packaging material, and the raw materials suppliers for the packaging industry. It is a private system of which today about 400 firms are members, among them the largest packaging companies. The system has two functions. First it organizes the arrangements between the participating industries to assure that all primary packaging is returned from the consumer and goes into a material-specific recycling process, and second it establishes a firm which itself takes part in the collection, sorting and recycling process.

The system's first task is achieved through the use of a specific label on packaging material which identifies the product as belonging to the system and which is issued by the system to users of packaging material. (Eventually, the retail industry participating in the system promises to accept for sale only these labelled products). In order to receive the label, a producing firm must present a guarantee from a recycling firm that the latter will take back from the firm established under the system to collect and sort packaging (see above) and reprocess all packaging material of the type in question. It must also pay a license fee for each packaging unit which varies depending on the volume of the container.

For some types of materials, the raw material suppliers and the packaging converters have global reprocessing guarantees. Hence, a user of such packaging material can easily obtain the label by simply making a contract with the system for the right to use it; the reprocessing guarantee has already been signed. For example, for glass products and tin-plate the glass and steel industries have given such guarantees. For other types of material such as plastic material and aluminium packaging, the user must seek a guarantee contract with the plastic and aluminium industry. However for packaging made of paper and cardboard, no such guarantee exists from the paper industry. In such cases, the firm established under the system would guarantee material recycling.

The system does not discriminate against foreign suppliers in granting the label and the global reprocessing guarantees extend over all packaging including foreign packaging materials. Hence the requirement of retailers to accept only products with the label can not be considered discrimination since foreign as well as domestic firms must meet it. Also, all packaging materials are subject to the same rules, hence discrimination in rules can not take place. The quota for refillable containers of beverages must be met by all suppliers, domestic and foreign so it is not formally a discriminatory trade barrier. However, the form in which it is administered, i.e. to whom the quota rights are given, may create a barrier to trade. This problem has been somewhat alleviated by not differentiating the quota separately among products, but by requiring that it be met from all beverage containers together.

The collection, sorting and reprocessing firm organizes waste collection through a combination of bring systems and curbside recycling. Glass and paper/cardboard packaging is collected predominantly through bring systems which exist already in many communities. Other materials will be collected through the use of curbside collection which will be extended with an additional bin in which these materials can be separately collected. These materials will be sorted at facilities of the firm or of the local waste collectors. In this way the system covers the material flow of packaging from the production stage through retailing and consumption back to the collection and reprocessing of the packaging material.

B. Voluntary Recommendations

These policy instruments are primarily in the form of non-enforceable guidelines and targets which are made effective in many cases through voluntary agreements between government and industry.

(i) Guidelines

Two countries have elaborated national packaging guidelines which are based on voluntary targets to reduce packaging. Both ask manufacturers to reduce packaging 50% by the year 2000 with half of the reduction to come through new source reduction and reuse measures and the other half through recycling. One includes specific annual targets which will be continuously set for each industry sector. Both will also establish a data collection system to monitor progress towards meeting the targets and, in the event that the targets are not met, provide for the development and implementation of a regulatory framework.

One also recommends six packaging policies with specific actions for government and industry. These policies are: 1) All packaging shall have minimal effects on the environment; 2) Priority will be given to the management of packaging through source reduction, reuse and recycling; 3) A continuing campaign of information and education will be undertaken to make all citizens aware of the function and environmental impacts of packaging; 4) These policies will apply to all packaging used in this country, including imports (this is to ensure a "level playing field" approach, preventing any particular type of packaging from gaining a competitive advantage at the expense of the environment and effective monitoring of border markets against entry of non-complying products must be ensured); 5) Regulations will be implemented as necessary to achieve compliance with these policies; and 6) All government policies and practices affecting packaging will be consistent with these national policies.

Another country established guidelines, based on the findings of a government-sponsored commission, for fourteen major types of waste. For paper, the recycling rate should increase from 50% to 55% by 1994, use of wastes for all types of paper products should be expanded, and readily recyclable and reusable paper packaging should be promoted. For steel cans, the recycling rate should increase from 44% to 60% in 1995, and for aluminum cans it should increase from 43% to 60% by the end of 1994. For glass bottles, the reuse rate should increase from 49% to 55% in 1995 and industry-wide standards for bottles should be adopted. For plastics, recycling, energy recovery, and reuse should be promoted, as well as thinner and longer-lasting plastic products. Specific recommendations, including the development of model recycling projects, developing more efficient recycling equipment, and developing additional uses of recycled resins, were also made for PET beverage bottles, foamed styrene fish boxes, and foamed styrene trays used for distribution.

In another country, the national environmental protection authority published procurement guidelines establishing purchasing specifications for the recycled content of certain materials such as paper, used oil, building insulation materials, retreaded tires, and cement containing fly ash. These are intended to assist the government in affirmative procurement programs to maximize their purchase of items containing the highest recycled content practicable.

In part of this country, a commission developed a broad range of recommendations and targets to increase the recycling and reuse of packaging materials. The main target is to reduce by 25% packaging discards per capita by 1994. To reach this, it recommended that this area: 1) require local governments to adopt volume or weight-based waste disposal fees; 2) require local governments to provide separate collection (for recycling) of all packaging materials that constitute a significant amount of the waste and recycling streams; 3) establish fees on manufactured products that contain hazardous substances, with the funds to be used to offset the additional costs of recycling packaging materials; 4) inform

consumers that they have a right to remove unwanted packaging at the point of sale and leave it with the seller; and 5) establish a framework of fees to be assessed against any packaging material that falls short of its 1994 recovery target or otherwise poses a significant environmental burden.

In addition, a coalition of authorities from some other parts of this country issued guidelines to encourage the elimination or reduction of packaging. The guidelines establish a hierarchy of actions, including refill, reuse, or recyclability of packages if they cannot be eliminated or reduced.

One regional organization has adopted legislation regarding packaging containers for liquids destined for human consumption. It has the broadest coverage of any liquid container regulation, covering milk and liquid milk products, edible oils, fruit and vegetable juices, water, non-alcoholic refreshing drinks, beer, wine, vermouths, cider and other fermented beverages, alcohol, spirits, liqueurs, and vinegar. It requires member countries to facilitate the refilling and/or recycling of such containers; to encourage the development and use of new containers that reduce the consumption of raw materials; to facilitate recycling, and achieve overall energy savings; and to maintain and, where possible, increase the proportion of refilled and/or recycled containers.

(ii) Targets

Two countries have established voluntary targets not falling within the context of broader packaging legislation. One country has set targets for recuperation rates, through both refilling and recycling, for carbonated soft drinks, juices and beer packaging. Another country has taken a number of steps to stimulate recycling including the setting of a recycling target and the establishment of a system of "recycling credits". The latter will encourage local collection and disposal authorities to share the savings that result from recycling activities with local governments or private groups who undertake such recycling. Plans are also being developed to encourage implementation of a government target of 25% recycling of household waste through systems for collection and processing of recyclables, identification of markets for collected materials, and local collection targets.

(iii) Voluntary Government and/or Industry Agreements

In one country a voluntary code of conduct has been negotiated between seventeen private sector associations representing producers, distributors, users and recyclers of packaging to develop and finance an action program to reduce and recycle packaging waste. In March 1991 an action program was signed which specified that a waste reduction plan was to be developed and a further action plan, incorporating both reduction and recycling targets, was to be developed by 1995. Industry agreed to remove hazardous materials and toxic chemicals from packaging; to design packaging for easier recyclability and to make both packaging and its production more environmentally friendly; to apply symbols on packaging to indicate whether it is refillable, recyclable and/or compostable; to finance the

construction and operation of an experimental sorting center for packaging collected from domestic waste; and to cooperate with government in the development of a data base capable of measuring progress toward waste reduction and recycling.

In another country an agreement between the government and the affected industries was reached whereby the presence of liquid food containers in domestic waste for wine, water, milk, beer, soft drinks, edible oils, alcoholic beverages, and fruit juices was to be reduced by 40% by 1984 and the amount of energy consumed per package hectoliter was to be reduced 12%. Recycling targets of 450,000 tons per year of glass, and 10,000 tons per year of PVC were also established. Large consumers, such as cafes, hotels, restaurants and institutions, of beverages such as beer, mineral water, and soft drinks were to use only returnable containers.

In 1988 a further agreement was signed by the government and the affected industries which was similar to the old in many respects but set new targets for glass recycling: 550,000 tons of glass from households and 700,000 tons of glass from households and industrial sources by the year 1990. These targets have been met.

In another country, voluntary efforts on the part of the private sector is supplemented by local government programs to separate "resourceful" materials from waste. 26% of 726 local governments surveyed had organized separate collection of resourceful materials.

C. Industry Experience with Other Countries' Packaging Legislation

One country noted several problems it had encountered in its experience with packaging legislation in other countries. One problem related to obtaining adequate oral and written explanations of a program and its requirements. Effective communication systems to explain the requirements of the program to industry and to the public (consumers) could help to alleviate this. Another problem was very short deadlines for implementation of requirements. This did not allow adequate time for companies to make the proper manufacturing, distribution and marketing adjustments to meet the new requirements. Industry suggested that target deadlines for implementing new environmental packaging and labelling programs should be reasonable and should take into consideration the time needed for companies to adjust to such requirements.

Competitiveness of companies could be affected if confidential business information was required as a condition for receiving approval to use labels; and if the determination of recyclability of particular materials is delegated to the domestic industry which may have an interest in excluding imported materials it does not produce. Industry thus suggested that, when implementing environmental packaging and labelling requirements and guidelines, efforts should be taken to not unfairly impede competition between private sector interests, while at the same time, recognizing the importance in seeking appropriate input from industry and non-profit organizations.

Part II: Labelling

I. Introduction

Environmental labelling programs, as discussed here, are defined as systems for the usually voluntary granting of labels by a private or public body in order to inform consumers. Section II of this part of the note is devoted to national or sub-national labelling programs which promote products which are determined to be environmentally more friendly than other functionally and competitively similar products.¹⁵ For purposes of this note, these programs will be termed "positive labelling programs". These programs represent relatively recent efforts to harness market forces and channel them towards promoting more environmentally sound patterns of production, on the part of industry, and consumption, on the part of the public. Section III of this part of the note includes other national or sub-national programs which may be designed to highlight certain aspects of a product such as its recyclability or biodegradability, and others which may indicate the dangers of a product (like cigarettes). These will be termed "other labelling programs".

II. Positive Labelling Programs

A. Introduction

Environmental labelling programs, many of which subject a product to a critical evaluation at all stages of its life, from production to disposal, in order to award a label are designed to achieve four goals: (1) improve the sales or image of a labelled product; (2) raise the awareness of consumers; (3) provide accurate and timely information for consumers to make informed judgements; and (4) direct manufacturers to account for the environmental impact of their products. Such programs which can only be effective if accepted and used as marketing tools, must increase sales or improve the product's or company's image, otherwise they will fail. This, in turn, will only happen if consumers respect the objectivity, credibility, and goals of the labels. If so, the labels will also serve to increase consumer awareness that some products are better or worse for the environment than others.

The labels provide consumers with an easily-recognized symbol indicating that a product's environmental worthiness has been assessed by experts. Finally, if the entire life-cycle of a product is evaluated, manufactures competing for the label would have an incentive to produce more environmentally benign products and thereby move towards cleaner

¹⁵This part of the note draws extensively from "Environmental Labelling in OECD Countries", Organization for Economic Cooperation and Development, April 1991; and "Impact of Environmental Legislation on Export Packaging from Developing Countries", No. 35, International Trade Center, October 1991.

production processes. Eventually, labelling programs may encourage manufacturers to incorporate environmental concerns just as product quality into their entire product development process.

Labelling programs are becoming increasingly popular, and despite certain difficulties in their operation, hold promise as an effective tool for environmental protection. However, their role must be viewed as a modest one and as part of a broader environmental policy.¹⁶ In all programs included in this note, a committee determines, or suggests to a government minister which product categories are eligible for labelling. Within each category, the scope of products is defined as well as the specific requirements that the product must meet to qualify for the label. These requirements are often called "criteria" and are established with the help of expert working groups. Manufacturers may, usually voluntarily, submit eligible products for consideration and, if they satisfy the criteria, they can contract with the committee or administering body for a period of years and pay a fee for the use of the label. While public participation varies among programs, all the programs included here have broad representation, with members from consumer, environmental and industry interests.

(i). Selecting product categories

In selecting product categories for labelling programs, one important point must be considered. In order for the label to have an effect on reducing environmental damages, a product category must include environmentally detrimental products as well as similar, more environmentally benign products with which it can compete. Thus, products which are, as a category, inherently hazardous to human health (such as chemicals), or which represent a potential danger (such as fire or explosives) are generally excluded.¹⁷

In defining the products in each product category, however, it is not always so easy to put this principle into effect. For example, it is not always easy to determine the actual extent of competition or substitutability among products. Also, a product category incorporating more products will better inform the consumer of a wider range of environmental qualities of a broader range of products, but it may reduce the incentive for manufacturers to improve their products.¹⁸ One way of

¹⁶"Environmental Labelling in OECD Countries", Organization for Economic Cooperation and Development, pg. 14.

¹⁷Except for one case, none of the labelling programs included here relate food products or pharmaceuticals, in part because these products are generally labelled for other attributes.

¹⁸For a more detailed explanation of why this is so, see "Environmental Labelling in OECD Countries", Organization for Economic Cooperation and Development, April 1991, pp. 22-23.

broadening a product category would be a graded label system whereby the degree of environmental impact among products in a category would be quantitatively assessed and reflected in the label. However, this approach has been rejected by all countries which had considered it because of concern regarding consumer confusion and the ability to measure precisely environmental impacts. Also, manufacturers may not pay for a label showing that their product was less environmentally friendly than another.

Once a product category is selected, the type and degree of environmental damage caused by the products in the category must be assessed. Assessing environmental effects and comparing them across products is very difficult and most countries have little experience in this area. Given this fact, most labelling programs, in assessing environmental impacts, focus on only a few specific aspects which are viewed as the best means of selecting more environmentally benign products. Thus labelling programs can not identify the "best" product for the environment in a category.

Such an assessment is often performed over the life-cycle of the product since, at any stage, whether production (including raw material use), distribution, use and disposal, the product can affect the environment in different ways and to different degrees. Thus the product's environmental effects must be assessed in all four stages and in all aspects of the environment (i.e. air, water, soil). Then those areas and times when a product group is most likely to significantly affect the environment must be identified, followed by a determination of how individual products differ.

(ii). Establishing Criteria

The criteria that a product must meet to obtain a label are generally the most important aspect of a labelling program and must be credible and respectable from the consumers point of view. They are generally termed as a standard of performance or a threshold quantity (for example a numerical value for emissions, energy use, or product content). The number of criteria for each product category depends to a large degree on the variation among the products and where, when and how they impact the environment.

If a criteria is established so that only a few products in a category can meet it, an important point is the threshold level of the criteria at which a product can receive the label. This is important because the labels should not only stimulate competition among manufacturers for the label but also stimulate public confidence. Generally high thresholds are achieved by only a small share of the market. Some programs set an initial goal of what percentage of the market should initially be eligible for the label. The threshold can later be raised as a larger share of the market are able to obtain the label. In other words, by issuing the label sparingly, its marketing appeal will not diminish. Another approach is to use the label to identify environmentally friendlier products, regardless of the market share, in order to reach greater numbers of products. In addition, many criteria also ensure minimum requirements for safety and reliability.

(iii). Financing

Although some public programs indicate they intend to become self-financing, none of them included here are. Many are government financed, particularly for the initial screening of product categories and for the product research. The extent of government involvement, whether in financing, decision-making, or research, in public programs is the most significant difference among programs. The advantages of such involvement are that better consistency in criteria, greater accountability to the public, and greater program transparency are ensured. Private programs, however, are self-financed, although they generally are not as comprehensive as government-sponsored programs.

(iv). Trade Aspects

With the growth of national labelling programs, the question of possible trade implications arises. Evidence indicates that, while at present, there is only a little trade in environmentally-labelled goods, potential trade-related problems may arise in the future. Present labelling programs are, for the most part, voluntary, and affect a small share of goods already on the market by making them more appealing to the consumer. None of the programs included in this note use different criteria for products of different origins, however discrimination could result, particularly when employing the life-cycle approach, from different production methods, or types and sources of raw material used. In addition, some programs require plant inspections which could prove difficult if the plant is in a foreign country.

A labelling program could create a trade barrier if it involved requirements which are costly or difficult for foreign firms to meet and favoured domestic products or if access to the program was not equally available to all suppliers. However, transparency of programs and their criteria, as well as public participation in the establishment of such criteria could help guard against such misuse of labelling programs.

Another issue concerns the use of a foreign label in a domestic market. Presumably, if a product was awarded a label according to credible criteria in its country of origin, it should be allowed to be exported and sold in a foreign market with the label. However, in reality, the label may not have any effect since consumers might not understand and respond to a foreign environmental label and may be confused by or ignore it, particularly if the same product was awarded an environmental label from a domestic authority.

This raises the question of harmonization of environmental labelling programs, which at first sight, may appear to eliminate such consumer confusion and promote economic efficiency. While such harmonization may be the trend for the future, it raises several possible problems. One approach to harmonization could involve an international institution which

would decide upon the product categories, the specific products, and the criteria. The certification and labelling could take place at the national level. Such harmonized products and criteria, however, may have difficulty in taking into account differing national characteristics of the markets and of the environmental concerns, and could lead to an overall lowering of standards. Also such an approach may prove bureaucratically cumbersome.

Another approach to harmonization could be mutual recognition of labels, based on reciprocity. One country could automatically award labels to products which had qualified for labels in another country and vice-versa. One problem with this approach is that the criteria between the two countries must be very similar. The label should be awarded to products with higher than normal environmental attributes among similar products. Since this is a relative measure, the criteria would have to take into account the particular varying circumstances among the national market, such as different requirements for the products, which may differ according to the environmental priorities of countries.

Labelling, however, proves an interesting case from the perspective of international trade; discrimination of a foreign product, theoretically, is not because of its national origin, but is because the product, in its production, use or disposal, did not meet certain qualitative criteria which the same product, in the domestic market, must also. The aim of the setting of the criteria should be the quality of the product, in all its stages of development, not its geographic origin.

(v). Conclusion

Although there is no quantitative measurements for the success of such programs, some case studies appear to indicate that environmental programs are partially successful in three ways: in bringing about change in consumer behavior, change in manufacturer behavior, and positive change in the environment. An important condition for the success of a program appears to be the size and power of an environmentally concerned market and the willingness of consumers to pay a premium for environmentally friendlier products; this is the market on which the success of such labelling programs depend. Thus, the rise of more environmentally-friendlier products and the altering of manufacturing processes to more environmentally-friendlier methods, is not solely the result of labelling programs, but of a rise in consumer consciousness over the environmental impacts of products. Labels, however, can make an important contribution.

B. Existing Positive Labelling Programs

The oldest program is a voluntary, government-sponsored program which works with the private sector and non-governmental organizations. Its goals are to reduce pollution in the environment through technological innovation, provide accurate information in guiding consumer choices, and create an economic incentive for producing environmentally-sound products. It is intended for consumer products which, by using the label, will be able to contribute to the improvement of an environmental problem.

Three bodies administer the program: the governmental environmental protection authority¹⁹, an 11-member non-governmental jury which includes representatives from environmental and science organizations, the church, consumer associations, industry, trade unions, other parts of the country, and a journalist, and a non-profit scientific organization whose members are 140 private-sector associations which, under the organization's guidance, set standards of quality for products and services in various industries and trades, ensure compliance with these standards, and provide quality seals. The latter organization's board of trustees includes members from industry and trade associations, consumer organizations, trade unions, and the government. Its representatives, along with those from the GEPA, can participate in the jury discussions but can't vote.

Anyone may propose a product category for labelling, although 90% come from product manufacturers. Approximately 200 proposals are reviewed a year, 5 to 15 are approved for further investigation, and only 3 to 6 labels are awarded each year. Awarding of the label is a four-stage process. First, the GEPA reviews proposals for product categories and passes them to the jury, which then determines which ones warrant further investigation. These then become the focus of technical papers which the GEPA prepares to define the scope of the category, establish draft criteria and specify the test results to satisfy these criteria. This is based on a life-cycle analysis whereby important environmental impacts are identified in each stage of a product's life. Out of practicality, one or two of the most important impacts are considered while others are given secondary importance.

With the report completed, the second stage involves an expert hearing held by the scientific organization to establish threshold criteria. The third stage involves these going back to the jury, which then reviews the draft criteria and the experts' critiques and may accept, reject, or amend them by majority rule. The product criteria are valid for three years only, and the GEPA tracks technological developments and market changes in product categories and informs the jury on the extensions or revision of criteria.

Fourth, the scientific organization oversees the awarding and signing of contracts with manufacturers. It assesses the appropriateness of the product to the category and the adequacy of the evidence provided by the manufacturer or other organizations. The application is then forwarded to the GEPA and the part of the country in which the product is manufactured.

¹⁹ Throughout the rest of the text, the initial "GEPA" will mean the governmental environmental protection authority in the respective country.

The scientific organization collects all fees for use of the label. A one-time application fee is charged as well as an annual contract fee based on product sales. The majority of companies using the label are domestic but 12% are foreigners.

If the label is used incorrectly, the GEPA or the scientific organization can take legal action, although no legal suits have been filed. Most of the problems which threaten to arise concern a manufacturer's advertisements which imply that a whole line of products, rather than just one, qualifies for the label.

Although as of 1991, 3,600 products in 64 categories²⁰ have been labelled and there is a consumer recognition rate of 78.9% has been achieved, over half of these products have been in only four product categories (low-pollutant varnishes and coatings, low-emission gas burners, pH neutral stripping agents for wastewater treatment, and recycled paper). In many product categories the label has largely been ignored.

Another country implements the next oldest program which differs somewhat from the first in that it is more goal oriented, placing emphasis on general standards of environmental impact. Its objective is to encourage conservation of the environment by certifying products and services deemed relatively beneficial to the environment. By promoting such goods, it hopes to encourage "clean" innovation by industry and elevate the environmental awareness of consumers. It is administered by a secretariat located within a non-governmental association which is supervised by the GEPA.

This program also differs from the first program in that it has a more simplified structure. More rapid approval of product categories and the fact that it is cheaper to administer has resulted in more rapid growth as measured by the number of labelled products during its shorter existence. As of 1990,²¹ it had issued over 850 labels in 31 different product categories. On the other hand, the program provides for less public participation than in some other programs and the criteria are less complex than in the first.

The program seeks to select product categories with the following four qualities: 1) minimal environmental impact from use; 2) significant potential for improvement of the environment by using the product; 3) minimal environmental impact from disposal after use; and 4) other significant contributions to improve the environment.

²⁰For a more complete listing and explanation of these categories, products, and criteria, see "Environmental Labelling in OECD Countries", Organization for Economic Cooperation and Development, pp. 74-99.

²¹Ibid, pp. 110-120.

Labelled products must, in addition, comply with the following guidelines: 1) have appropriate environmental pollution control measures during production; 2) have ease of treatment for disposal; 3) be able to conserve energy or resources through its use; 4) be in compliance with laws, standards, and regulations pertaining to quality and safety; and 5) cost not extraordinarily higher than comparable products.

The program works through two committees. One is a nine-member committee with representatives from consumer, manufacturing, industry, and distribution groups, the GEPA, a national institute which studies the environment, and local governments. This Committee acts in a supervisory capacity by approving the guidelines for the program's operation, advising on day-to-day operations, and selecting appropriate product categories and criteria. The other committee is a five-person technical committee composed of representatives from consumer groups, science experts, as well as technical experts from the GEPA and the national institute which studies the environment. It judges the qualification of the applicant for the label.

Anyone may propose a product for consideration. If the product category has not yet been considered, the supervisory committee decides whether to approve the category. If it is approved, with the aid of the technical committee, the supervisory committee establishes criteria, generally in a much shorter time than in other programs. If criteria already exist for a product category, the technical committee determines whether the criteria are satisfied by the applicant product. If a label is approved, a two-year, renewable, licensing contract for the use of the label is signed with the GEPA.

The annual licensing fee depends on the product's retail price, rather than total sales. New products and categories are announced twice a year. Thus far approved product categories have been primarily in the areas of recyclables, reducing household waste, renewable energy, and energy efficiency. Foreign manufacturers are free to apply for the label and some already use the label on personal care aerosol products without CFC's and on "stay-on" tab drink cans and sponges made from cellulose.

This country has another government program for the labelling of recycled waste paper (such as newspapers, magazines, toilet paper, furniture, and pulp board). It is sponsored by the national trade authority on behalf of a recycling promotion center. Designated school and community groups collect a specific type of certificate through purchasing labelled goods, which they then send to the recycling promotion center. In exchange, the recycling promotion center sends coupons back which may be used for the purchase of seedlings at stores of a tree growers association. There are presently 8,000 groups at school and community levels participating in the program.

Another country's relatively newer program, differs from the other two in that it is exclusively a governmental program, however in its decision-making activities, representatives from environmental, manufacturing, health care, retailing, and consumer groups are included.

It was designed primarily to inform consumers so that they could make environmentally conscious purchasing decisions.

This program is administered by a secretariat on behalf of an independent advisory board, which meets five times a year. The secretariat is part of the GEPA which also entirely funds and legally indemnifies the program. The board has 16 members, appointed by the environment minister, including representatives from environmental, manufacturing, health care, retailing, and consumer groups. The board serves as both a jury and final advisor to the environment minister. Guidelines are prepared by an independent technical agency, which is contracted each year, with close involvement by the secretariat. This technical agency is also responsible for verifying products against the guidelines and for licensing companies on behalf of the program.

The program bases its selection and approval of products which, in their manufacture, use, or disposal significantly reduce the environmental harm that would otherwise be caused, on four principles: 1) significant long-term environmental issues are favored rather than short-term issues likely to be addressed through regulations; 2) the entire life-cycle of a product should be considered before establishing criteria, even though the guidelines can only cover a few of the product's aspects; 3) the program should serve to educate the consumer of environmental trade-offs, that even a labelled product may not be absolutely safe for the environment and that the label certifies the product, not the company; and 4) the label should promote industry leadership through identifying environmentally superior goods. In fact, in setting high criteria, the program has set a rough target of 10-20% of the product's eligible market which can qualify for the label. Over time this percentage should increase as the product category as a whole improves its environmental norms. The criteria will then be raised to new standards to once again identify a small number of environmentally superior goods.

Anyone may propose a product category for labelling, although about 70% come from industry. The secretariat reviews each proposal and passes it to the board with a description of the product category. For some categories, an issue paper for the board is prepared by the secretariat, the GEPA, or outside experts, which attempts to explain the complex subject and provide a number of options for defining the scope of the category and the criteria.

The board reviews the proposal and may accept or reject the category or request more technical information. For the approved categories, the secretariat prepares a technical briefing note which assesses the environmental, technical and market considerations associated with the product. Environmental benefits are assessed using a life-cycle approach. With this input, the board may recommend that the proposed product category proceed to the draft guideline stage.

The draft criteria are established by a specially convened task force composed of members of the affected industries and representatives from consumer and environmental groups. Its work is overseen by a coordinating

technical committee comprised of independent technical experts from a variety of fields together with members of the board, the secretariat and the technical organization. This committee reviews the draft criteria and may send them back for further revision. The draft criteria are then forwarded to the board for approval.

In reviewing the draft criteria, the board may ask for further work, suggest specific changes, or approve them. Upon board approval, the criteria are released for a 60-day period of public comment from interested parties. After considering comments by the public, the task force may suggest changes to the draft. If approved by the coordinating technical committee, the revised draft and a summary of the public comments are submitted to the board which may accept the guidelines and send them for final approval and promulgation by the environment minister, or send them back for further consideration. The final guidelines are published in government publications, newspapers, press release, and an extensive mailing list. This entire procedure takes a minimum of 12 months for each product category with much of it open to public review.

Upon publication of the final criteria, any manufacturer may apply to the technical agency for a label. The agency reviews the evidence and visits the plant. Contracts between the agency and the manufacturer are valid for a maximum of three years, during which time the agency annually verifies compliance. The contract provides that GEPA representatives may also make unannounced visits to the plants. The manufacturer must pay for testing costs, as well as a one-time certification fee which varies according to the complexity of the necessary testing and the number of plants involved. An annual fee is based on estimated annual product sales.

More than 400 product categories have been recommended to the board and are at various stages of consideration. As of 1991, 18 product categories have been selected and 58 contracts have been signed²². So far, the program has emphasized the areas of recycled and low-pollution products. Response from industry has generally been supportive particularly from the recycling sector, and no legal actions have been brought to challenge the program.

Programs to be implemented this year

In another country's program, the final decision-making power rests in the government rather than in a jury. Four bodies administer the program: the GEPA, a non-governmental consumer association, a private certification association, and an environmental labelling council. The latter serves as an advisory body to the environment minister and has 15 unpaid members. It has 3 environmental science experts, and 12 members from various interest groups including consumer and environmental organizations, standards and industry associations, and government

²²Ibid, pp. 100-109.

representative from the national environmental authority and national trade authority. Consensus decision is the goal of all council actions, but majority vote is sufficient.

Anyone may propose a product category for labelling to the GEPA which prepares a background report on each proposal for the council. The latter considers the proposals and makes a formal recommendation to the environment minister. Once the minister has chosen the product categories worth researching, the consumer association selects an expert group to establish criteria and define the scope of the product category. To balance views, it selects up to four experts from industry, environment and consumer groups, who together assess the product in terms of its entire life cycle, including raw material usage, energy consumption, waste production and emissions, and disposal. While emphasizing above-average environmental soundness, the criteria also consider whether labelled products provide at least average quality and performance.

The draft criteria and product category are submitted to the council, which may accept, modify, or reject the proposal. The final decision, however, is with the GEPA. If approved, the private certification association oversees the administration of awarding labels, including evaluation of product applications, testing, and signing of civil law contracts, which are valid for two years. All applicants must also sign a mandatory product declaration assuring compliance with relevant environmental regulations.

If the label is improperly used by a producer, or any decision concerning the establishment of the criteria or the awarding of the environmental label is considered unfair or unreasonable, the issue is brought before the council's arbitration board. This four person board includes one representative from industry, environment, and consumer groups and the chairman of the council. Regardless of the decision, a business competitor is always free to sue the offender in the competition courts.

The government has provided the initial financing for the program with the hope that it will become self-financing. There is a biennial license fee scaled to product sales, which includes the application fee (about 25% of the total). As of 1991, expert groups were preparing criteria for four product categories: paper products; paints, lacquers, varnishes and dyes; wooden particle board and pressed wood; and refrigerators and appliances for cooling.

Another country has a labelling program designed to protect the environment; provide accurate information to the consumer on those products on the market which cause the least harm to the environment; and be rapidly operational and realistic. It is a government sponsored program, but like some others, it relies on an independent standardization institute to oversee administration and criteria development.

Businesses, professional groups, and associations may propose a product category for labelling. A committee, located within the independent standardization institute with representatives from

environment, consumer and industry organizations, decides whether the proposal warrants further investigation. If so, the committee appoints an expert to prepare the scope of the product category and criteria based on a life-cycle approach.

The committee makes recommendations on the expert's work, then passes it to the staff of the standardization institute which is charged by the government with the drafting of criteria and product categories; it is free to either implement or disregard the committee's recommendations. The final proposal is forwarded to the government, where the appropriate minister must give final approval. This program appears to have less opportunity for public participation than several others.

Once the criteria and product category have been published, manufacturers may voluntarily apply for the label. The standardization institute oversees processing of the application, appropriate testing and plant visits, signing of the contract, and, if the label is issued, periodic compliance checks during the 3-year life of the contract.

The initial application consists of three charges: a pre-determined application charge, a charge for plant inspection, and a charge for the certification testing required by the criteria. The annual contract fee is for the administration, control and promotion of the label, and is a percentage of the product's annual sales. The program is financed half by the government and half by the standardization institute.

Another country's program is based on two goals: to provide information to consumers to encourage them to consider environmental impacts in their purchases, and to improve the quality of the environment by providing incentives for producers to change their products. The government initially sponsored the program and entrusted its administration to an accreditation authority with technical expertise in standard setting and testing. The council of this authority includes government appointees but it operates independently and is self-funding.

A working group of members from this authority, the government, and a consumers institute established a committee which will advise the authority in making decisions regarding the program. This committee is broadly represented with 10 members from manufacturing, retailing, packaging, and environmental interests, as well as from the GEPA and the consumer institute. The committee decides on the product categories. Expert groups will then develop product criteria, using a life-cycle approach, which, along with the categories, must be approved by the accreditation authority.

The program aims to consider more than one criterion for each product category, and sets criteria that are practically achievable by some products in a category, but not all. Producers will voluntarily apply for the label and pay a fee for its use. The program eventually aims for self-sufficiency. To increase the likelihood of cooperation and reciprocity with other national programs, this program intends to use overseas product criteria as much as possible.

Another country created a labelling program for environmentally-friendlier goods which would be administered by a governmental commission with representatives from the ministries of environment, consumer and industry. It would be responsible for assessing the requests presented by firms or individuals for classification of products; classifying product categories; overseeing proper use of the label on products already labelled; defining and publishing criteria and revising them every two years if necessary as a result of technical or scientific progress; and enforcing the contractual obligations associated with use of the label.

One regional organization has introduced a voluntary, harmonized labelling program for use by its member countries. Its objectives are to inform consumers to help them choose environmentally less-damaging products; to stimulate manufacturers to take environmental considerations into account in products' design and production; and to use market forces as a complement to environmental legislation. One goal is to set criteria as high as possible, and at least higher than the most stringent national requirements, to stimulate development of products.

A coordinating body for environmental labelling, with two representatives from each of the participating countries, under the authority of the regional organization's committee for consumer affairs, has final authority to establish criteria and select product groups. The initial selection of product categories and development of criteria, however, takes place at the national level. Once a product category is proposed, the country initiates a background study after consultation with other programs (in order to avoid duplication of efforts).

Once the study has been completed, including the drafting of criteria, it is sent to the other member countries for comments. The country originating the proposal revises the study accordingly and sends the final version to the coordinating body, which may approve, modify, or reject it. All the decisions of the body are by consensus, with one vote per country. If consensus cannot be reached, the matter may be referred to the council of ministers of this regional organization at the request of a country.

Once a product category is approved by the coordinating body, its criteria are valid in all participating member countries. The national programs in each country then oversee the evaluation and approval of applicant products, as well as contractual obligations for use of the label. Although the national programs are harmonized, a producer must pay a separate annual contract fee for the use of the label in every member country in which the product is sold.

In three of the participating countries, an independent organization administers the program. In the first, a standards association manages the program in accordance with an agreement signed with the trade ministry. An environmental labelling board will make the final decisions. Its chairman is appointed by the trade ministry and its other 8 members, representing the areas of consumer, environment, trade and industry, are nominated by the standards association. The standards association also appoints an expert group to advise the board. It has representatives from the

government, trade and industry organizations, employee, home economics, consumer and environmental organizations and research institutes. So far, expert groups have been formed to develop criteria for newsprint and magazine papers, and general packaging requirements.

In the second participating country, an independent, legal foundation consisting of a secretariat, board, and council was appointed by a government ministry, however this program does not rely on the government for technical support.

The council of the foundation is responsible for guiding the foundation's activities, approving the annual budget, and considering complaints from manufacturers over board decisions. It has 19 members, drawn from central government organizations, trade and industrial organizations, environmental organizations, trade unions, youth organizations, and the housewives association, who serve three-year terms.

The board of the foundation is responsible for the actual mechanics of the labelling program and acts as the jury, determining final criteria and categories. It has eight members, four from the government, and one from an environmental group, trade unions, industry, and the federation of commercial associations. A manufacturer or importer may propose a product category. The board chooses those it deems worth pursuing, consults with the regional coordinating body, and appoints an expert group to develop product labelling criteria based on a life-cycle approach. It circulates the draft criteria and product category definitions to member countries for comments; they are then submitted to the board for final approval, and then to the regional coordinating body.

The third country's program is administered by a standards institution, in agreement with the government which funds the program through a loan. Its goals are to label product groups with significant environmental problems and in which there is a great need for consumer information and guidance. The program is directed by a labelling board and secretariat with a reference group to give advice to the board. The board serves as the director and jury, choosing product groups for initial consideration, adopting final criteria and product categories, and establishing general regulations and fee structures. It has ten voting members, including representatives from government, environmental, and consumer agencies, private environmental organizations, industry, manufacturing, wholesalers, retailers, trade unions, and consumer cooperatives. The chair is appointed by the government.

Anyone may propose a product category for consideration by the board, in consultation with the regional coordinating body. An expert group is assembled to consider the environmental impact of the product throughout its life-cycle, but establishes criteria based on the most serious environmental problems. The group circulates its draft criteria and product groups to the other participating countries for comments, however the regional body must grant unanimous approval before the labels may be issued. The standards institution oversees license applications. The applicant must pay for all certification costs, and an annual fee which is dependent on product sales.

In this country, private environmental labelling programs served as the major impetus for the government-supported program. One private group published a popular guide for environmentally sound shopping. One of the country's three major retail chains used the guide to place labels on the shelves below recommended goods. Another retailer joined with an environmental non-governmental organization to use its logo on the retailer's paper shopping bags. The three major retailers eventually joined together to sponsor an environmental labelling program. They funded a private organization to develop product criteria for products which retailers then identified by labelling the market shelves rather than the product itself. The private organization has relied on industry and government experts in setting criteria, concentrating on the most important aspects. As a result, these stores, where over 80% of the population shops, now have environmentally labelled goods in paper product, laundry detergent and battery categories. Since this initiative aided in the establishment of a national program, it will stop after the government-supported program becomes more institutionalized.

Another regional organization adopted a voluntary labelling program for all consumer products except food, drink and pharmaceuticals. Its objectives are to encourage manufacturers to design and produce products which have a reduced environmental impact and to provide consumers with better information on their environmental performance. It was designed as a market instrument which would promote products which use cleaner technology and to harmonize criteria. Within six months of its entry into force, all participating member countries must inform the organization of the measures they have taken to ensure compliance with the program.

On the basis of the life-cycle approach, the regional organization will establish ecological criteria for each product category. The award of a label is given by the competent bodies in the participating member countries, on the basis of an assessment of a product against the organization's agreed criteria. The regional organization's criteria for a product's eligibility relate to the amount of waste, water, air, or soil pollutants a product produces, its noise level, the quantity of natural resources it consumes, and its overall impact on the environment. All of these factors are to be examined at each stage of a product's life cycle.

Initially the program will focus on a few product categories with one participating country leading the work for each. These are detergents, paper products, washing machines, paints, and packaging materials. The criteria for the program will be prepared by expert committees chaired by the lead country. This criteria will then be reviewed by a regional body where a vote will take place by majority rule, before submission for approval by the regulatory committee of the regional organization. The first labels plan to be granted by 1993.

The organization will also consider the amount of the fee which manufacturers or importers will pay in exchange for the right to use the

label on their products and which is based on the producing or importing firm's product turnover, and may vary among the participating countries.

Industry can participate in the expert meetings and in the regional reviewing body where other interested parties (such trade, consumer, and environmental associations) may also participate.²³

In another country, several private programs deal with certification and standard setting. One program is administered by an independent, non-profit, environmental standard setting organization which sets environmental standards and allows the use of its label on products that it finds meet these standards. The program is directed by an independent board of directors that is composed of representatives from the environmental community, government and industry. An environmental standards council comprised of environmental scientists reviews standards and serves as an arbitrator for complaints made against the standards.

The objective of the standards, which are reviewed every three years, is to identify those products that are less harmful to the environment than others in their category. Depending on the product involved, standards seek to reduce or eliminate toxic chemical pollution, improve energy efficiency, protect water resources, and minimize impacts on fish and wildlife and their habitats. In some cases advisory panels composed of representatives from business, government, academia and the public interest community may be formed to assist in the development of specific standards.

Thus far, standards have been set for bathroom and facial tissue, water efficient fixtures, printing and writing papers, re-refined engine oil, and energy efficient lighting products. Standards for paint, household cleaners, paper towels and napkins, newsprint, thermal windows, product packaging and printing inks are being developed. Those products meeting the standards are eligible to be labeled, and companies pay a fee for the use of the seal. The program is funded by private donation and foundation grants but seeks to establish itself in the future as a self-sustaining body for standards setting and certification.

C. Other Labelling Programs

In this same country, the GEPA has authority to develop regulations for mandatory warning labels on most containers or products made with or containing ozone depleting substances; for an extensive pesticide labeling program; for the labelling of hazardous wastes; and for the labelling of chemicals which pose unreasonable risk to humans or the environment. Regarding environmental claims on consumer products, the GEPA requires that such claims be substantive and supported by reliable evidence, and that they should be as specific as possible to educate consumers and promote

²³"European Community Environment Guide, 1992/93", The European Community Committee of the American Chamber of Commerce, Brussels, Belgium, pp. 28-29.

equitable competition on environmental grounds. It has also taken several other related initiatives.

The GEPA has published non-binding, national procurement guidelines establishing purchasing specifications for the recycled content of certain materials such as paper, used oil, building insulation materials, retreaded tires, and cement containing fly ash. These guidelines are intended to assist other national agencies in the establishment of affirmative procurement programs to maximize their purchase of items containing the highest recycled content practicable. They are published in the official government document.

The GEPA also requested comments and gave notice of a public hearing to solicit comments on options for voluntary guidelines to be used in product labelling and advertising which promotes the use of recycled materials and recyclable materials. These guidelines also discuss the use of a recycling emblem and were published in draft form in an official government document. Also, along with a trade and consumer agency, it formed a task force to provide a coordinated and cohesive national response to the issue of environmental labelling and marketing claims. It is also considering the issuance of joint educational materials to help consumers evaluate environmental claims.

Also, it is developing regulations for mandatory warning labels on both consumer and commercial products containing or using ozone depleting compounds; it has requested public comment on the development of criteria to identify and expedite the registration of "reduced risk" pesticides to consider whether claims can be made that these are safer than other existing alternatives; and it is developing a guidance document, expected in autumn 1992, for conducting life-cycle assessments that evaluate environmental impacts of products, processes and services and which may someday be used as a basis for identifying products with fewer environmental impacts.

The GEPA currently requires environmental hazard communications in three areas: 1) environmental toxicity information is required on pesticide labels; 2) consent orders issued under the new chemical review program mandate the inclusion of environmental hazard cautions on the material safety data sheets of chemicals exhibiting high acute aquatic toxicity; and 3) in connection with the mandatory reporting of releases of hazardous substances, environmental criteria used in setting the minimum release quantities of each substance must be reported.

The GEPA is also completing a report, to be issued in autumn 1992, which will address harmonization possibilities for environmental labelling and its potential trade effects; an analysis of environmental marketing terms; and an evaluation of the effectiveness of environmental labelling programs in order to support its own policy analysis.

A national trade agency in this country issued non-enforceable guidelines for industry on environmental labelling in order to reduce consumer confusion and prevent the false or misleading use of environmental

terms in advertising and labelling of consumer products. They are administrative interpretations (which may be modified after three years) of laws administered by this agency and provide guidance to marketers in conforming with legal requirements. The terms covered in the guidelines include "compostable", "degradable", "biodegradable", "photodegradable", "recyclable", "recycled content", "source reduction", "refillable", and "ozone safe and ozone friendly".

The guidelines address four general concerns: 1) that qualifications and disclosures should be sufficiently clear to prevent deception; 2) that environmental claims should be sufficiently clear whether they apply to the product, the package or a component of either; 3) that the claims should not overstate the environmental benefit or attribute; and 4) that comparison of the environmental attributes of one product with another should be sufficiently clear and substantial.

A consumer agency of this country has authority regarding labelling requirements for consumer products used in the home when these products pose a unique hazard, as defined by certain criteria. The labelling includes words of caution, warning or danger; affirmative statements regarding the hazard; instructions or precautionary measures; first aid measures; and the name and address of the manufacturer.

Another agency concerned with maritime administration has authority to regulate the use of any term or symbol implying that a tuna product contains tuna caught using fishing methods that are not harmful to dolphins. Labelling tuna as "dolphin safe" is not required, however, mislabeling constitutes a violation of legislation. Enforcement is based on required documentation linking the product to the catch of a particular vessel on a particular trip. These regulations are published in an official government document.

Parts of this country require that plastic products and packages be labelled as to their resin category, according to guidelines developed by the plastic industry. In other parts, local authorities have been active in bringing enforcement actions against companies making false or misleading environmental marketing claims. They published a report which recommended that the national government adopt a national regulatory scheme establishing definitions to be used in the labeling and promotion of products on the basis of environmental attributes, and guidelines for environmental marketing claims. In addition, the national association of these local authorities passed a resolution asking that the trade agency discussed above develop uniform national guidelines taking into account their report of recommendations.

Several private labelling programs have also emerged in this country. One such program is a non-profit certification program providing independent certification of environmental marketing claims such as recycled content levels. It was initially financed through grants from a corporation but now operates on revenues generated in connection with its certification activities. It is also developing a separate program which would provide consumers with information on a wide variety of environmental

impacts, allowing them to make their own environmental impact determination. Another non-profit, private organization is working to establish standard setting methods for voluntary standards for packaging and environmental labelling, particularly with respect to plastics.

In addition, several industries have initiated labelling programs. A national food association and a broad-based group of manufacturers and retailers developed proposed guidelines on environmental marketing terms and petitioned the trade agency for their adoption. A cosmetics and toiletries association and nonprescription drug association also developed guidelines and petitioned this agency for their adoption. Finally, a large chain of retail stores has begun a program to work with suppliers to provide "environmentally compatible" products. Its goals are to: 1) identify and promote green products; 2) educate employees and consumers about products and their effect on the environment; and 3) help modify products so that they have a positive effect on waste disposal. This chain has contracted with a university to substantiate manufacturers' claims.