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INTERNATIONAL EXPERT MEETING

ON A 10-YEAR FRAMEWORK OF PROGRAMMES FOR SUSTAINABLE CONSUMPTION AND PRODUCTION

(Chapter III of the Johannesburg Plan of Implementation)

Discussion Paper

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Contents

I. Introduction

The Johannesburg Plan of Implementation, adopted at the World Summit on Sustainable Development in September 2002, contains, in chapter III, commitments on changing unsustainable patterns of consumption and production.[1] In particular, the Plan calls for actions at all levels to

> "Encourage and promote the development of a 10-year framework of programmes in support of regional and national initiatives to accelerate the shift towards sustainable consumption and production to promote social and economic development within the carrying capacity of ecosystems by addressing and, where appropriate, delinking economic growth and environmental degradation through improving efficiency and sustainability in the use of resources and production processes and reducing resource degradation, pollution and waste. All countries should take action, with developed countries taking the lead, taking into account the development needs and capabilities of developing countries, through mobilization, from all sources, of financial and technical assistance and capacity-building for developing countries." (paragraph 15)

Such a framework should strengthen international cooperation and increase exchange of information and best practices to facilitate the implementation of national and regional programmes to promote more sustainable consumption and production. In particular, work under the framework should ensure that all countries benefit from the experience of countries taking the lead on various aspects of sustainable consumption and production, as called for in the Johannesburg Plan of Implementation (paragraph 14). The framework should develop and evolve over the 10-year period to reflect progress and experience as well as changing priorities and emerging issues.

There have already been, since 1992, many efforts at local, national, regional and international levels to change unsustainable consumption and production patterns. However, while there has been some improvement in energy efficiency and resource productivity, overall resource consumption and waste have continued to grow, resulting in consumption and production practices that are, in most respects, less sustainable than they were 10 years ago.

The International Expert Meeting is intended to advance the development of the 10-year framework of programmes for sustainable consumption and production. The results of the International Expert Meeting will be submitted to the Commission on Sustainable Development for its consideration as part of its post-Johannesburg programme of work. The results of the Meeting are also intended for consideration by other international, regional and national organizations concerned with sustainable consumption and production.

The development and implementation of the 10-year framework should also take place at the regional level. Two regional meetings, for Latin America and the Caribbean and for the Asia-Pacific region, have been held prior to the International Expert Meeting, and other regional meetings are planned. The results of those regional meetings, and the regional concerns and priorities they identify, should be taken into account in the development of the 10-year framework.

This Discussion Paper is supplemented by a Survey Paper, also prepared for the International Expert Meeting, containing summary information on international and regional activities relating to sustainable consumption and production. In order to accelerate the shift towards sustainable consumption and production patterns, there is a need to strengthen and focus such international cooperative efforts, to increase exchange of information, and to exploit synergies so that all countries can benefit from work on these issues. Work on the 10-year framework should identify ways to facilitate cooperation and coordination among programmes and to improve information flows in order to support national and regional activities addressing the various issues of consumption and production.

II. Concept of the Framework

The scope of the framework, as proposed in this Discussion Paper, is basically defined by Chapter III of the Johannesburg Plan of Implementation: "Changing Unsustainable Patterns of Consumption and Production". It does not include general consideration of issues addressed in other chapters of the Plan, including poverty eradication (chapter II), management of natural resources (chapter IV), globalization (chapter V), health (chapter VI) or means of implementation (chapter X), although aspects of those issues should be addressed when they relate directly to sustainable consumption and production.

Work on the framework should also avoid duplicating other major international programmes related to sustainable development in the follow-up to the Johannesburg Summit and other recent UN conferences. In particular, the framework should be complementary to the extensive UN system efforts to address the Millennium Development Goals with their focus on poverty[2], and efforts to follow-up on the Monterrey Conference on Finance for Development[3] and the Doha Ministerial Meeting of the World Trade Organization.[4] This paper therefore focuses on consumer behaviour and on sustainable industrial production, with consideration to the linkages of those issues with poverty, health, natural resource management, trade and finance.

The 10-year framework should reflect the priorities and goals of national and regional activities, promote support for those programmes by international organizations, and support the full participation of developing countries in international programmes.

The 10-year framework should respond to economic, social and environmental conditions and trends and their impacts on sustainable development. Urbanization, for example, is expected to continue in developing countries, with major impacts on local environmental and social conditions. Urban planning and management will therefore be increasingly important in determining consumption and production patterns and sustainable development. Increased trade, foreign direct investment, technology transfer and electronic communications, as well as cultural exchange, also have important impacts on sustainable development, as consumption and production patterns become increasingly global in nature. Increased freight transport and personal travel is leading to higher consumption of fossil fuel and increased air pollution and carbon dioxide (CO_2) emissions in most countries. Information and communication technologies continue to develop rapidly, and while these technologies have the potential to reduce energy and

material consumption, the evidence to date seems to indicate that increased use of electronic media and communications tends to stimulate increased paper and energy consumption and travel. Analysis of such global trends and their impacts on consumption and production is an important part of planning for sustainable consumption and production and is being undertaken by a number of programmes. This analysis of major economic and social trends and their impacts should be supported and the results made widely available.

Technological development is a major driving force for consumption and production patterns, both as a main driver of economic growth and consumption of energy and resources, and as the driver of increasing eco-efficiency of production and consumption and pollution reduction. The framework should therefore include consideration of ways to promote the development, dissemination, transfer and use of more sustainable technologies, both through specific technology policies, and through other policies, incentives and consumer behaviour that create demand for such technologies.

The survey of international activities aimed at facilitating cooperation and information exchange in the area of sustainable consumption and production is contained in the separate Survey Paper, also organized according to this outline. Work on the framework should include a review of those international activities and consideration of which programmes and mechanisms are already adequate for promoting international cooperation, which are adequate in structure but require enhanced activities and resources, and which require new or expanded structures. International efforts under the framework should then concentrate on those issues and tools that are a priority for many countries and for which existing international programmes and mechanisms for promoting cooperation are not adequate.

International programmes such as those described in the Survey Paper should serve a number of functions. They should provide a forum where participants from government agencies, international organizations, local authorities, industry, other non-governmental organizations, researchers and others can get together to exchange information and develop cooperative programmes. They should collect and disseminate information on international and national programmes and experience, best practices, obstacles and analysis, for use by all countries. They should also provide training, capacity building and technical assistance. In all of these functions, there should be a particular effort to support initiatives in developing countries and to ensure their participation in international activities and access to information.

In promoting broad international cooperation in support of sustainable consumption and production through the framework, a particular focus should be placed on policies and practices that simultaneously promote economic growth, social development and environmental protection, rather than requiring trade-offs among these objectives. Many cleaner production techniques, for examples, increase resource efficiency and labour productivity, thus reducing waste and pollution and conserving resources, while increasing competitiveness and access to markets and improving working conditions. Another example would be life-cycle cost analysis and consumer information programmes that indicate when purchase of energy-efficient lighting and appliances by consumers, businesses or public authorities result in rapid payback through lower operating costs, as well as providing environmental and health benefits.

III. Elements of the Framework

For purposes of analysis and discussion, this paper divides issues of sustainable consumption and production into four clusters:

(1) Urban management and transportation, including waste management and construction;

(2) General policy measures and analytical tools that address both consumption and production;

(3) Tools for changing consumer behaviour;

(4) Tools for changing production patterns.

These clusters provide a basis for the analysis below and will be used as the basis for discussion in four working groups at the International Expert Meeting. Each working group will consider priorities and needs for the 10-year framework for that cluster.

A number of issues will not be addressed in this paper although they were addressed in Chapter III of the Johannesburg Plan of Implementation and may be considered part of sustainable consumption and production. In particular, this paper and the International Expert Meeting will not address in general the energy sector or chemical management. (See note on chemicals and energy at the end of the paper.)

However, increasing energy efficiency in industrial production, in the commercial sector and in households is central to efforts to promote more sustainable consumption and production and must be addressed in the context of the 10-year framework. Efforts to improve energy efficiency include technological innovation, policies for market transformation, more efficient production methods, regulatory approaches, consumer education campaigns and public-private partnerships providing energy efficiency services. Improving energy efficiency in industry is also a central element of cleaner production programmes. Energy efficiency will therefore be addressed as part of each of the clusters above.

Another energy issue that might be addressed under the framework is the development of markets for renewable energy, through economic incentives, "green power" programmes, renewable energy requirements for utilities, public information campaigns, public procurement and other efforts to promote commercialization of renewable energy. Like energy efficiency, markets for renewable energy will be addressed under the four clusters above. As issues of energy efficiency and renewable energy markets are also likely to be addressed by other international programmes addressing energy issues, work on energy issues under the framework will need to be coordinated with those other programmes.

For each of the four clusters, this Discussion Paper suggests some priorities for work under the 10-year framework. These suggestions should be taken as a starting point for discussions at the International Expert Meeting, not as proposals by the secretariat. The suggestions are based on the idea that, within a 10-year horizon, initial priority should be given to issues that have the greatest importance for the greatest number of countries and that can generate benefits in the short-term. Issues and tools that require more development, or are priorities to fewer countries,

are identified as medium and longer-term priorities. The identification of issues or tools as medium or long-term priorities does not mean that work on those issues should not be done now. Indeed, it is highly desirable that work on those issues be continued by interested countries, individually or cooperatively, as a basis for future broad cooperative activities under the framework.

As suggested, initial international cooperative efforts under the framework might focus on issues and measures where fairly quick and substantial benefits can be achieved in all three aspects of sustainable development – economic, social and environmental - in a wide range of countries. These would be issues and measures that have been developed and demonstrated in leading countries over some time and have well-documented procedures for implementation. Particular efforts should be made to ensure that all countries, in particular developing countries, have opportunities to participate in international cooperative arrangements and programmes on these issues.

Medium-term efforts could focus on further conceptual and operational development and assessment of measures that have shown promise in some countries. In general, these would probably be of most interest primarily to developed countries and some of the more advanced developing countries. However, developing countries should have opportunities to participate in international cooperative efforts to develop and demonstrate such measures, and information on the results of such efforts should be made widely available.

Longer-term efforts would address new ideas that require substantial conceptual development and testing to assess their feasibility and benefits. These should be considered and developed primarily by interested developed countries, with information on their development made available to the international community.

1. Urban management and transportation

By the year 2020, over half of the population of developing countries will reside in urban areas. As a result of the concentration of people and services in cities, urban residents generally travel shorter distances, are more likely to use public transit, and require less energy for space heating and cooling than suburban or rural residents with comparable incomes. However, even if urban living is more energy efficient, the high concentrations of people and production in cities result in high concentrations of pollution and waste. Cities tend to suffer from high air and water pollution, but also tend to be leaders in addressing issues of sustainable consumption and production. Sustainable urban planning and management, including waste management, transportation systems, land use, construction and infrastructure, are issues being addressed in almost all large cities throughout the world, and urban authorities are often national leaders in efforts towards sustainable development.

Initial priorities

- Improve solid waste management and recycling systems to reduce the impacts of waste and conserve natural resources;

- Strengthen mechanisms for sharing experience and best practices among local authorities and other organizations concerned with urban consumption and production patterns.

Medium-term priorities

- Examine how urban planning and land use can support more sustainable transportation and consumption patterns;
- Improve construction standards and materials to make buildings more environmentally efficient and address health and safety issues;
- Develop, apply and assess policies for extended producer responsibility to reduce the economic, environmental, health and safety impacts of waste material.

Long-term priorities

- Develop affordable, efficient and clean transportation technologies, such as fuel cell power systems and other low emission technologies;

UN-HABITAT is the major UN organization for urban issues, including waste management, as well as urban planning and housing.[5] UN-HABITAT maintains a "Best Practices Database" covering urban sustainable development and other issues and provides guidance and assistance to countries in adopting such practices.[6] UNEP manages a Sustainable Building and Construction Forum.[7] UN-HABITAT and UNEP, together with other partners, are working on partnerships to promote local capacities in urban environmental planning and management.

The International Council of Local Environmental Initiatives brings together local authorities from many countries in all regions, provides policy guidance, training and technical assistance and serves as an information clearinghouse.[8] Efforts to strengthen international cooperation and information exchange on urban issues, with the participation of local authorities, should build on the work and expertise of UN-HABITAT, UNEP and ICLEI.

A consumption and production issue of particular importance for urban areas is solid waste management. Rapid increases in solid waste, due to both population growth and changing consumption patterns, are a major problem for municipalities in both developed and developing countries. The Johannesburg Plan of Implementation calls for the development of waste management systems, with highest priority placed on waste prevention and minimization, reuse and recycling, and environmentally sound disposal facilities, including technology to recapture the energy contained in waste. In a number of cities in developing countries, organization of informal waste collection and scavenging systems is providing income opportunities for people in poverty while promoting recycling and reuse. Such programmes, if well managed, can provide social, economic and environmental benefits.

The Collaborative Working Group on Solid Waste Management in Low- and Middle-Income Countries, with participants from governments, international organizations, developing country experts, and specialized NGOs, promotes information exchange on solid waste management

issues and promotes international cooperation.[9] The group could serve as the primary international arrangement for promoting cooperation and exchange of information on this issue.

To reduce the impacts of solid waste of health, safety and the environment, extended producer responsibility policies have also been adopted in some countries for certain products, making producers and distributors responsible for product recycling and disposal – thereby giving producers an incentive to design the products to be longer-lived and more resusable and recyclable. Notable examples of such policies in Europe are for cars and for electrical and electronic equipment. OECD conducts research on extended producer responsibility.[10]

Efforts to promote more sustainable urban transportation include development and promotion of clean fuels and vehicles, efficient public transportation systems, non-motorized transportation and urban planning to reduce demand for transportation. Clean vehicles are being developed in a few countries, and clean fuels are being introduced into more. As urbanization and economic development continue, urban transport systems that are convenient, affordable, attractive, less polluting and more energy efficient will become more important in all parts of the world. Policy instruments to make transportation systems more sustainable can include subsidies and other economic incentives that reflect social benefits, vehicle and fuel performance standards, and support for research and development of clean vehicles and fuels.

The Partnership for Cleaner Fuels and Vehicles,[11] launched at the Johannesburg Summit with 40 partners including governments, NGOs, industry and international organizations, including the UN Division for Sustainable Development and UNEP, could provide a mechanism for international cooperation and dissemination of information on sustainable transportation. For public and non-motorized transportation, the UN Division for Sustainable Development is the lead international organization in a broad partnership for United Nations Car Free Days.[12]

Sustainable transportation systems require not just clean vehicles, but integrated transportation planning at the national, regional and local level. This is a complex long-term process that is generally specific to particular economic, social, political and environmental conditions. Nonetheless, there is a need for exchange of information on the experiences of countries and localities in addressing these problems. UN HABITAT has general responsibility for urban planning within the UN system, and the World Bank and GEF provide support for programmes in this area.

2. General policy instruments and analytical tools

Much of the work that has been done on changing consumption and production patterns focuses not on particular sectors or problems, but on general policy instruments that can be applied to many sectors or issues to change the behaviour of consumers and producers. Much work has also been done on analytical tools for assessing the sustainability of consumption and production patterns and the effectiveness of measures for changing those patterns. This section will consider policy instruments that affect both consumers and producers, for example taxes or subsidies on natural resource consumption. The following two sections will consider policy instruments those that are aimed primarily at consumers, such as consumer information and

product labels, and instruments aimed primarily at production, such as emissions regulation and emissions trading.

Initial priorities

- Examine current taxes, subsidies, tariffs and other trade and investment policies for their impacts on sustainable development, including resource conservation, environmental quality, health, poverty and other issues; and consider alternative policies to promote economic and social development while reducing environmental impacts and conserving natural resources.

Medium-term priorities

- Develop life-cycle approaches and analyses of products and services that are economically, environmentally and socially important, in comparison with alternative ways of meeting the same needs; an initial focus might be the development of accessible databases to support life-cycle analysis;

- Promote and support use of indicators and methodologies for monitoring sustainable development and measuring the impact of policies and programmes for sustainable consumption and production;

- Promote environmental accounting as part of national accounts.

Long-term priorities

- Develop, apply and evaluate integrated product policies, and make the results available to other interested countries;

- Examine how new information and communication technologies can reduce the resource intensity of consumption and production patterns;

- Examine the impact of globalization on sustainable consumption and production and develop strategies to enhance positive impacts and reduce negative impacts;

A major group of policy instruments that affect both consumers and producers are economic instruments that internalize external environmental and social costs, such as the public health costs of pollution, into the price of the product. Taxes can be applied to a variety of objects, such as natural resources that are depleted, pollution emissions, harmful products such as cigarettes, or waste. Emission charges for pollutants and deposit-refund schemes for containers are similar economic instruments. On the other hand, products or activities that are absolutely or relatively sustainable, such as renewable energy sources and employment generating activities, can be given tax breaks or subsidized to internalize environmental and social benefits. With respect to international trade, tariffs and other trade incentives and barriers can also be used to favour goods and services that support sustainable development.

While environmental taxes and subsidies are often applied on an individual basis, some efforts have been made to design systematic "green tax reform", shifting taxes generally from sustainable to unsustainable goods and activities while maintaining revenues, and shifting subsidies from unsustainable to sustainable goods and activities. Measures may be necessary to protect people in poverty from adverse impacts through targeted subsidies.

There is a large literature on policy instruments and examples of their application, but it is scattered. It might be worthwhile to identify a few key information sources that could serve as information clearinghouses.

Tradable emission permits have been the focus of much attention in recent years, particularly since they are one of the flexible mechanisms of the Kyoto Protocol for reducing the cost of limiting greenhouse gas emissions. Tradable permits have also been used in various countries for reducing SO_2 emissions, improving efficiency of water use, reducing lead in gasoline, managing fisheries, and managing land development. In the context of the Kyoto Protocol, there have been many technical meetings examining greenhouse gas emissions trading schemes at both the national and international level, and new arrangements under the 10-year framework are probably not necessary.

A recent development in efforts to promote sustainable consumption and production has been work on integrated product policies (IPP). This focuses on a product or service and attempts, with the involvement of all relevant stakeholders, to reduce the overall environmental impacts in an integrated way over all phases of the life-cycle, including design, production, consumption and disposal. The development of IPP has been concentrated in the European Union.[13] It would appear that the concepts and practices for integrated product policies need to be further developed and demonstrated in developed countries before they become a priority area for broader international cooperation. Nonetheless, some efforts by interested developed countries to bring the results of work in this area to the attention of interested developing countries could be useful.

Changing consumption and production patterns to promote sustainability requires not just policy instruments to change consumer and producer behaviour, but also analytical tools for determining the relative sustainability of different goods and services. In particular, internalization of external environmental and social costs requires tools for assessing those external costs. Sustainable impact analysis and life cycle analysis are particularly important tools for this purpose, but are often complex and costly to conduct, in part because they may be highly dependent on local conditions and may change with time. UNEP, together with the Society of Environmental Toxicology and Chemistry (SETAC),[14] recently launched the Life-Cycle Initiative to develop tools based on life-cycle thinking and facilitate their wider application.[15] This Initiative involves partners from all stakeholder groups and could provide a basis for increased and improved exchange of information and cooperation in this area.

In order to monitor trends in consumption and production and the effectiveness of efforts to change them, indicators of sustainable consumption and production are needed. The United Nations Division for Sustainable Development, in cooperation with the UN Statistics Division

and other international and national institutions with expertise on indicators, has developed methodologies for a number of indicators of sustainable development, including consumption and production patterns.[16] These indicators and methodologies are intended for use on a voluntary basis at the national level, based on each country's needs and priorities, and the Division provides technical assistance to developing countries for this purpose. The Division, with this network, could provide a focal point for international cooperation on indicators of sustainable development. A number of other indicators have been proposed to provide a broad indication of sustainability, including the "eco-footprint" and "environmental space"[17] occupied by a particular city or country, but these have not been widely adopted or included in the UN indicators of sustainable development and might still be considered experimental.

The United Nations Statistics Division has developed the System of Integrated Environmental and Economic Accounting (SEEA) as a satellite system of the System of National Accounts, including both economic indicators and measures of physical resource consumption.[18] The Statistics Division provides information, training and assistance in the use of this system.

Consumption and production patterns are affected not only by economic growth and the technologies specific to the goods and services in question, but also by global patterns of trade and investment, information and communication technologies, and cultural exchange. Shifting to more sustainable consumption and production will require an understanding of those trends and their impacts on sustainability. These large-scale processes generally have both positive and negative impacts on sustainability, and determining the net overall effects is rather difficult. Thus, while there have been many such studies, the results tend to be inconclusive, and not a solid basis for action. Within the United Nations system, UNCTAD has worked on these issues.[19] While such studies should be continued, and it might be useful to have an information clearinghouse for the results, possibly in UNCTAD, it would not appear that international coordination of such studies would be a priority for the initial stage of the framework.

3. Tools for changing consumer behaviour

The Johannesburg Plan of Implementation calls for the development of awareness-raising programmes on the importance of sustainable production and consumption patterns, through, *inter alia*, education, public and consumer information, advertising and other media, taking into account local, national and regional cultural values. As a result of increasing public concern for environmental and social issues, consumer interest in "green," organic and "fair trade" products and socially responsible production has grown rapidly since the 1980s, particularly in developed countries. Such products, however, still represent a small share of the market. Large institutional consumers, such as governments, local authorities, public institutions and large enterprises, can have an even greater impact as they can issue product specifications for their procurement and establish support services for new types of products.

Initial priorities

- Consider standards and labelling for energy-efficient equipment, including lighting, heating systems, air conditioning, computer equipment, appliances and other equipment,

combined with consumer education to promote purchasing decisions based on operating costs as well as purchase costs;

- Promote public procurement by national governments, local authorities and public institutions of cost-effective sustainable goods and services to build and strengthen markets and set an example for business and household consumers, for example for recycled material, energy-efficient equipment, cleaner fuels and vehicles, and safe cleaning agents and solvents;

Medium-term priorities

- Examine the impact of labelling and other consumer information tools on consumer behaviour, and their impact on market access for products from developing countries;

- Disseminate and promote the use of the United Nations Guidelines for Consumer Protection, in particular the new elements on sustainable consumption, and support developing countries in their efforts to develop and strengthen consumer protection policies;

Long-term priorities

- Examine the role of the media, advertising and education in influencing consumption and production patterns and develop strategies to enhance positive impacts and reduce negative impacts;

Product standards and labelling have been used by many countries for some time to reduce the environmental impacts of products over their full life cycle. The UN Division for Sustainable Development is coordinating a partnership, the "Collaborative Labelling and Appliance Standards Programme" (CLASP), to promote the cost-effective adoption of efficiency standards and labels in developing countries.[20] The partnership includes developed and developing country governments, industry, international organizations and NGOs. This partnership could serve as a broader coordinating mechanism for programmes on energy efficiency standards and labelling.

The Johannesburg Plan of Implementation calls for the development and adoption, where appropriate, on a voluntary basis, of effective, transparent, verifiable, non-misleading and non-discriminatory consumer information tools. There are many labelling and certification schemes, primarily for environmental impacts, that cover a range of products. Most are national, while some are used in a number of countries. The Global Eco-labelling Network (GEN) serves as an international forum of national or regional eco-labelling organizations for exchange of information and coordination.[21] With regard to organic agricultural products, the International Federation of Organic Agricultural Movements (IFOAM) provides a network for global exchange and cooperation.[22]

Governments are important consumers of goods and services as well as policy-making bodies. Government spending, at all levels, on goods and services generally accounts for 15 to 30 per

cent of GDP. Government spending on sustainable goods and services not only reduces the negative impacts of government operations, but also creates or expands markets for sustainable goods and services and provides a model for consumption by corporations and other large institutions. The Johannesburg Plan of Implementation promotes public procurement policies that encourage the development and diffusion of environmentally sound goods and services. The UN Division for Sustainable Development recently organized an international expert meeting on sustainable public procurement as an initiative for international exchange of information on the subject.[23] The Division intends to organize further meetings of this group and to develop an information database on the subject.

For local authorities, the International Council of Local Environmental Initiatives (ICLEI) provides an important mechanism for exchange of information on sustainable public procurement by local authorities.[24] For international organizations and others, the Environmentally and Socially Responsible Procurement Working Group, including the World Bank, UNEP, UNDP and a number of other UN organizations, development banks and other organizations, serves as a mechanism for coordination and information exchange.[25]

Consumer organizations and other non-governmental organizations have played an important role in raising consumer awareness of product safety and the impacts of consumption choices. Consumers International, with 250 member organizations in 115 countries, has been active in promoting international cooperation on consumer issues, including sustainable consumption, and has cooperated with the United Nations on a number of activities.[26] The organization would be a valuable partner in international multi-stakeholder efforts for information collection and dissemination and capacity building in developing countries.

Consumer protection measures provide both access to information on goods and services and assurance that products are safe and effective. Based on the work of the Commission on Sustainable Development, the General Assembly, in 1999, adopted an expanded version of the United Nations Guidelines on Consumer Protection, including principles of sustainable consumption.[27] The expanded Guidelines provide a comprehensive framework for action by governments and other stakeholders to promote sustainable consumption and protection. UNEP, together with Consumers International, recently conducted a survey of the implementation of the expanded Guidelines in various countries, focusing on the new elements on sustainable consumption.[28] The survey indicated that the most common implementation activities focused on recycling and energy and water conservation. The survey also indicated that further efforts were needed to disseminate the Guidelines and increase international cooperation to promote their wider implementation. The consumer protection approach to sustainable consumption helps to integrate sustainability issues with safety, quality, functionality and other aspects of product performance.

The role of advertising and the media, and educating young people are important areas of work in promoting sustainable consumption, with UNEP, UNESCO and Consumers International being particularly active in the area. The Youth, Sustainable Consumption and Lifestyles Project,[29] the Youth Xchange project,[30] the Educating for a Sustainable Future project,[31] and the Advertising Initiative,[32] provide a good basis for international cooperation among interested countries and organizations. However, there is limited understanding of how

consumer information and awareness affects consumer behaviour and what the most effective information tools are. There is a need for further research in this area.

Businesses, especially large businesses, are also important consumers of goods and services and can influence markets through their procurement policies. Retail businesses play an important role through the products they procure and offer to their customers. In recent years, some large businesses have made efforts to improve their social and environment images, including through supply-chain management. UNEP DTIE, in particular, has worked in this area.

4. Tools for changing production patterns

Efforts to make industrial production more sustainable include regulation, economic incentives, dissemination of cleaner technologies, improved management systems, training and improving working conditions. In many cases, improved technologies and production methods can improve productivity and profitability while reducing resource consumption and pollution. Growth in foreign direct investment and trade, international production chains, and improved communications have increased the international transfer of cleaner technologies and improved management and operating procedures. Government support for more sustainable production, including support by both source and recipient countries in the case of international transfer, can facilitate the transfer of sustainable technologies, particularly to small and medium-sized enterprises and to countries that have not participated in the growth of foreign direct investment and trade. Public pressure arising from environmental and social concerns can also encourage enterprises to adopt environmentally and socially responsible behaviour to improve their public image.

Initial priorities

- Support cleaner production and assist industry in using clean and resource-efficient production methods that increase productivity and profitability, while protecting the local and global environments and improving working conditions;

Medium-term priorities

- Develop and implement national cleaner technology strategies, including research and development and investment incentives to promote clean and competitive industries;

- Develop and demonstrate environmental management accounting methods, with guidelines, manuals and software, to enable enterprises to identify cost-effective ways to reduce costs by reducing waste and pollution.

- Improve employment and income opportunities and working conditions, including health and safety conditions, workers rights, social protection and social dialogue.

Long-term priorities

- Examine the impact of efforts to promote corporate social and environmental responsibility, including both voluntary efforts by industry and campaigns by other organizations.

The Johannesburg Plan of Implementation calls for the establishment of and support for cleaner production programmes and centres and more efficient production methods by providing, *inter alia*, incentives and capacity-building. A growing number of developing countries and countries with economies in transition have established national cleaner production centres, with the support of UNIDO, UNEP and donor countries. These centres provide support to industry for improving productivity and reducing air and water pollution. The Johannesburg Plan of Implementation calls for collection and dissemination of information on cost-effective examples in cleaner production, eco-efficiency and environmental management. The Global Cleaner Production Network, based on the UNEP/UNIDO National Cleaner Production Centres Programme, facilitates sharing of knowledge among cleaner production practitioners.[33] The Network also promotes pollution prevention through policy making, industrial practices and financing. There is a growing literature of case studies on cleaner production published by UNEP, UNIDO and UN/DESA.

The Johannesburg Plan of Implementation also calls for incentives for investment in cleaner production and eco-efficiency, such as state-financed loans, venture capital, technical assistance and training programmes for small and medium-sized enterprises. There are also a number of efforts to encourage the private finance sector to take sustainability into account as a factor in investment. UNEP has been particularly active in this area with its Finance Initiatives[34] and finance activities in its Energy Programme,[35] working with banks and insurance companies.

National technology strategies can also be used to promote sustainable industrialization by focusing domestic and foreign investment and research and development on industries that are clean and have growth potential. The UN Division for Sustainable Development has been supporting a number of developing countries in the elaboration of cleaner technology strategies.[36]

Improving corporate management accounting to identify and manage environmental and social costs can contribute to improving corporate productivity and profitability while promoting resource conservation, pollution reduction and improved working conditions. The UN Division for Sustainable Development has organized an international Expert Working Group on Environmental Management Accounting (EMA) focusing on government policies and programmes for promoting corporate use of EMA.[37]

Improving working conditions includes efforts to expand employment and income opportunities, improve health and safety standards, improve social protection and social dialogue, and promote workers rights, reflecting local customs, traditions and conditions. In addition, workers will need to be protected from adverse impacts of changing patterns of consumption and production. The International Labour Organization, with its tripartite process involving workers,

employers and governments, is the lead international agency for these issues.[38] Greater efforts are needed to integrate efforts to address these social issues with efforts to address environmental issues.

The Johannesburg Plan of Implementation calls for the enhancement of corporate environmental and social responsibility and accountability through voluntary initiatives, including environmental management systems, codes of conduct, certification and public reporting on environmental and social issues. A number of organizations are active in promoting international cooperation in this area, including the International Organization for Standardization, with its ISO 14000 standards and certification system,[39] the Global Reporting Initiative, with its guidelines on sustainability reporting, [40] and Social Accountability International, with its social accountability certification system.[41] It would appear that further work under the 10-year framework should be done through or in cooperation with these existing organizations and programmes. The United Nations Secretary-General's Global Compact[42] and the OECD work on corporate responsibility[43] also promote improved social and environmental performance by multinational companies.

In some sectors, industry, often through industry associations, has developed voluntary codes of conduct, charters and codes of good practice concerning environmental and social performance. In some cases, NGOs have participated in such activities as independent monitors. International business organizations, such as the World Business Council for Sustainable Development,[44] are contributing to work in this area.

5. Inter-linkages among the clusters

The identification of sustainable consumption and production issues and their clustering into the four groups above is one way of dividing them for the purposes of discussion. In practice, the four clusters and the elements in them are closely related, and work in each area needs to take into account work in the other areas. In particular, consumption patterns are inseparable from production patterns. In some cases, consumption patterns can be changed most effectively through policies that address production, and vice versa.

Rather than having a separate discussion on the inter-linkages between the clusters, or discussing continuing arrangements for addressing inter-linkages, the inter-linkages with other clusters that are critical to each cluster should be discussed within that cluster.

IV. Linkages of the framework with other issues

As noted in the Introduction, the framework of programmes for sustainable consumption and production as proposed here does not include programmes covered in other chapters of the Johannesburg Plan of Implementation, notably poverty reduction, natural resource management, health, and trade and financial flows. Nonetheless, consideration should be given to the impacts of programmes to change consumption and production patterns on poverty, natural resource systems, health, trade and financial flows. Such changes could be due to changes in price or

availability of products and services, changes in supply or demand, changing economic opportunities, and other factors.

The majority of existing programmes promoting sustainable consumption and production focus on environmental issues, with some efforts to integrate economic development with environmental protection. Only a very few programmes, such as Fair Trade schemes, or pressure on multinational corporations to ensure decent working conditions in their developing country suppliers, directly address social issues such as poverty, inequality and employment. Greater efforts are required to integrate social development issues into programmes under the framework.

While the framework does not directly address natural resource management, many of the programmes for sustainable consumption and production involve resource conservation as a result of increased efficiency in resource use by industry, business and households. In the case of agriculture, consumer choices concerning food and clothing, such as increasing demand for organic products, or declining demand for beef, affect agricultural markets, production methods and economic opportunities for farmers. Those impacts need to be studied, and activities under the framework will need to be coordinated with related programmes and international arrangements, particularly arrangements in the areas of energy and water currently being considered by the UN Chief Executives Board for Coordination (CEB) and its High-Level Committee on Programmes[45] as part of their consideration of UN system follow-up to the Johannesburg Summit and other conferences.

Many of the activities within the scope of the framework have an impact on international trade and financial flows, and those impacts need to be examined. Efforts are needed, for example, to ensure that environmental protection measures do not impose unnecessary constraints on trade, particularly on exports from developing countries. In general, there is a need for further studies of the impact of globalization on sustainable development in general and sustainable consumption and production in particular. Work under the framework will need to take into account progress in the new round of multilateral trade negotiations.

As in the case of the inter-linkages among consumption and production issues, it does not appear useful to have separate arrangements for addressing the linkages between consumption and production issues and other issues. Rather the critical linkages should be addressed within each activity.

V. Conclusions

The International Expert Meeting on the 10-Year Framework of Programmes for Sustainable Consumption and Production is intended to launch an effort to strengthen international cooperation for sustainable consumption and production. The Meeting should review the activities and priorities of all countries and regions, assess how well existing international programmes are supporting those activities and priorities, particularly those of developing countries. Based on that analysis, the Meeting could identify a limited number of priority issues for initial efforts to strengthen international cooperation under the framework, as well as issues for longer term development with the 10-year horizon.

For the priority issues, the International Expert Meeting should focus on identifying effective international mechanisms and processes for exchange of information and transfer of technology and know-how among national and regional programmes. The Meeting should identify issues where existing international cooperation processes are generally adequate, issues where processes need to be strengthened or expanded, and issues where new international processes may be needed. Where a need for strengthened or new international processes to address priority needs is identified, organizations that could take the lead should be identified, together with countries that would participate in those processes, and donor countries to support those efforts.

The framework, the priorities and the cooperative processes should evolve to meet changing conditions and concerns, taking into account the evolution of other activities undertaken to follow-up the Johannesburg Plan of Implementation and the outcomes of other major UN conferences.

The Commission on Sustainable Development, at its eleventh session in April/May 2003, adopted a Multi-Year Programme of Work for the Commission for the period 2004-2017, with selected issues for detailed consideration in each two-year period.[46] The issue of "changing unsustainable patterns of consumption and production" was identified as a cross-cutting issue to be addressed in the context of the issues for all periods. In addition, the 10-year framework of programmes on sustainable consumption and production was selected for in-depth consideration in 2010/2011. Progress on the development and implementation of the framework, and reports on sustainable consumption and production issues as applied to the themes for each period, will be submitted to the Commission at each of the biannual Review Sessions, and a detailed report covering work on all aspects of sustainable consumption and production will be submitted in 2010 for consideration as part of the Commissions detailed consideration of the issue.

Work on the international framework should be complemented by regional meetings on sustainable consumption and production, like the regional meetings held in March and April 2003 in Argentina and Indonesia, and by international and regional expert meetings on specific issues within the scope of the framework.

Subsequent international expert meetings on the framework might be organized every two years to examine the effectiveness of the framework, to review progress in developing policies for changing unsustainable patterns of consumption and production, and to expand or reorient the focus areas for international cooperation under the framework. The two-year cycle would correspond to the two-year work cycle of the Commission on Sustainable Development, facilitating reporting on the framework to the Commission.

The effectiveness of the framework will depend on the willingness of donor countries and international organizations to support efforts to develop the framework and to focus, to some extent, their efforts on the priority issues identified for the framework, without abandoning productive work on other areas.

Sources for further information

[1] Report of the World Summit on Sustainable Development, United Nations document A/CONF.199/20, available at www.un.org/esa/sustdev/ under "WSSD Report".
[2] Implementation of the United Nations Millennium Declaration, United Nations document A/57/270 (2002); See www.un.org/millenniumgoals/index.html
[3] See www.un.org/esa/ffd/
[4] See www.wto.org/english/tratop_e/dda_e/dda_e.htm
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[44] www.wbcsd.org
[45] ceb.unsystem.org/
[46] www.un.org/esa/sustdev/

Note on Energy and Chemicals

Energy is central to development, but its production and consumption, as currently practiced, are also the main causes of air pollution, anthropogenic climate change and other problems. Sustainable development will therefore require substantial changes in the way energy is produced and consumed. Issues relating to energy are addressed by a variety of United Nations agencies and other international programmes, as indicated in the review paper. There have not been any broad and open international arrangements for promoting international cooperation and exchange of information on energy in general.

In the preparations for the Johannesburg Summit and the 2001 (ninth) session of CSD, for which energy was a major topic,[1] an Ad Hoc Inter-Agency Task Force on Energy, chaired by the United Nations Department of Economic and Social Affairs, was established to coordinate efforts of the UN system, but the mandate of the Task Force ended with the Summit. The report of the Secretary-General for CSD-11 noted that there was a need for international arrangements in the areas of energy and water and sanitation, arrangements that should be innovative, flexible, visible and credible and involve all major actors.[2] This question is being considered by the United Nations Chief Executives Board for Coordination (CEB) in the context of the follow-up to the major UN summits and conferences.[3] The International Expert Group should not therefore consider cooperative arrangements for the energy sector in general. The same applies to issues of water management.

In the area of safe management of chemicals, there are several international mechanisms already functioning. The Inter-governmental Forum on Chemical Safety (IFCS)[4] and the Inter-Organization Programme for the Sound Management of Chemicals (IOMC),[5] with WHO as administering agency,[6] provide international forums for exchange of information and policy coordination on chemical management. In addition, the Global Information Network on Chemicals (GINC),[7] hosted by Japan, serves as an international source of information and provides networking arrangements on chemicals. The International Register of Potentially Toxic Chemicals (IRPTC), hosted by UNEP, is an international clearinghouse for pollutant release and transfer registers (PRTRs) and supports exchange of PRTR-related information through its web-site. Work related to nuclear waste and spent fuel management is coordinated by IAEA. The secretariat of the Basel Convention[8] and the interim secretariats of the Rotterdam[9] and Stockholm Conventions,[10] all supported by UNEP, also address aspects of chemical safety. Arrangements in this area will therefore not be addressed in the International Expert Meeting on the 10-year framework.

Notes

[1] www.un.org/esa/sustdev/csd9/csd9_decision.htm
[2] "Follow-up to Johannesburg and the Future Role of the CSD – The Implementation Track": Report of the Secretary-General, United Nations document E/CN.17/2003/2, available at www.un.org/esa/sustdev/csd11/csd11_2003.htm
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