

**International Expert Meeting on a 10-Year Framework of  
Programmes for Sustainable Consumption and Production**  
(Chapter III of the Johannesburg Plan of Implementation)

**Marrakech, Morocco, 16 – 19 June 2003**

**Survey of International Activities  
on Consumption and Production Patterns**

**Background Paper**

Prepared by the  
Division for Sustainable Development  
Department of Economic and Social Affairs



**United Nations**

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## ACRONYMS

ASTAE	Asia Alternative Energy Programme
BASD	Business Action for Sustainable Development
BAT	Best available techniques
CADDET	Centre for Analysis and Dissemination of Demonstrated Technologies
CBTF	Capacity-Building Task Force for Trade, Environment and Development
CLASP	Collaborative Labelling and Appliance Standards Program
CSD	Commission on Sustainable Development
EC	European Commission
ECA	Economic Commission for Africa
ECE	Economic Commission for Europe
ECLAC	Economic Commission for Latin America and the Caribbean
EIA-Convention	Convention on Environmental Impact Assessment
EMA	Environmental Management Accounting
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCWA	Economic and Social Commission for Western Asia
ESMAP	Energy Sector Management Assistance Programme
EU	European Union
FAO	Food and Agriculture Organization
GEF	Global Environment Facility
GEN	Global Eco-labelling Network
GHS	Globally Harmonized System for Chemical Classification and Labelling
GINC	Global Information Network on chemicals
GITE	Global Initiative on Transport Emissions
GREET	Global Renewable Energy Education and Training Programme
GRI	Global Reporting Initiative
HIA	Health Impact Assessment
IAEA	International Atomic Energy Agency
IAPSO	Inter-Agency Procurement Services Office
ICC	International Chamber of Commerce
ICLEI	International Council for Local Environmental Initiatives
IETC	International Environmental Technology Centre
IFCS	Inter-governmental Forum on Chemical Safety
IFOAM	International Federation of Organic Agricultural Movements
IIASA	International Institute for Applied Systems Analysis
ILO	International Labour Organization
IMO	International Maritime Organization
IOCC	Inter-Organization Coordination Committee

IOMC	Inter-Organization Programme for the Sound Management of Chemicals
IPCC	Intergovernmental Panel on Climate Change
IPCS	International Programme on Chemical Safety
IRPTC	International Register of Potentially Toxic Chemicals
ISES	International Solar Energy Society
JICA	Japan International Cooperation Agency
NEPAD	New Partnership for Africa's Development
OECD	Organization for Economic Cooperation and Development
OLADE	Latin American Energy Organization
OPEC	Organization of the Petroleum Exporting Countries
OPET	Organizations for the Promotion of Energy Technologies
PPPUE	Public-Private Partnerships for the Urban Environment
PRTR	Pollutant Release and Transfer Register
PVMTI	Photovoltaic Market Transformation Initiative
SBC	Secretariat of the Basel Convention
SCP	Sustainable Cities Programme
SEA-Protocol	Protocol on Strategic Environmental Assessment
SEEA	System of Integrated Environmental and Economic Accounting
SETAC	Society for Environmental Toxicology and Chemistry
SPREP	South Pacific Regional Environment Programme
UN	United Nations
UNACLA	United Nations Advisory Committee of Local Authorities
UNCTAD	United Nations Conference on Trade and Development
UN/DESA	United Nations / Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNEP/DTIE	UNEP Division on Technology, Industry and Economics
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UN-HABITAT	United Nations Human Settlements Programme
UNIDO	United Nations Industrial Development Organization
UNITAR	United Nations Institute for Training and Research
WACLAC	World Associations of Cities and Local Authorities Coordination
WBCSD	World Business Council on Sustainable Development
WEEA	World Energy Efficiency Association
WHO	World Health Organization
WIRE	World-wide Information System for Renewable Energy
WMO	World Meteorological Organization
WUF	World Urban Forum

## INTRODUCTION

This survey provides background information for the discussions of the 10-year framework of programmes on sustainable consumption and production at the International Expert Meeting, to be held in Marrakech, Morocco, from 16 to 19 June 2003. It is complementary to the Discussion Paper, also prepared for the Meeting, which assesses the status of arrangements for international cooperation and suggests ways to strengthen such cooperation. There are a large number of programmes in many international and regional agencies addressing various aspects of consumption and production.

The purpose of the 10-year Framework is to promote and facilitate international cooperation in moving towards sustainable consumption and production, among countries, international organizations, the private sector, environmental and consumer organizations and other non-governmental organizations. The Survey provides a basis for reviewing international cooperation mechanisms and the activities of organizations in the field of sustainable consumption and production for the purpose of developing the 10-year Framework. It can also serve as a source of information on such mechanisms and activities for the use of national and regional programmes seeking international cooperation. It identifies the international organizations active in each area and the nature of their activities, and indicates sources of further information.

The Survey covers the activities of international organizations, inter-governmental bodies, major global partnerships and certain international non-governmental organizations in the area of sustainable consumption and production.

As explained in the Discussion Paper, while consumption and production patterns relate to all aspects of sustainable development, the scope of the framework will generally address the elements in chapter III of the Johannesburg Plan of Implementation,<sup>1</sup> including cleaner production, sustainable consumption, resource and energy efficiency, sustainable transport, urban planning, and solid waste management, together with the variety of policy instruments for addressing those issues. The framework will not focus on issues addressed in other chapters of the Johannesburg Plan of Implementation, notably poverty, management of natural resources, health and means of implementation. Those issues would be considered only in the context of issues of sustainable consumption and production.

In preparing this paper, the United Nations Division for Sustainable Development conducted a survey among United Nations agencies, regional commissions and other major international organizations and bodies. The information contained in this paper uses the responses to this survey, augmented by additional research by the Division. The paper is based on the information available to the Secretariat at this time and is not necessarily comprehensive, in particular for non-UN organizations such as the European Commission, OECD or NEPAD. This survey will be made available on the website of the United Nations Division for Sustainable Development<sup>2</sup> and could be further developed and updated as necessary to meet the needs of national, regional and international programmes.

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<sup>1</sup> Report of the World Summit on Sustainable Development, United Nations document A/CONF.199/20, available at <http://www.un.org/esa/sustdev/> under "WSSD Report".

<sup>2</sup> <http://www.un.org/esa/sustdev/>

## A. URBAN MANAGEMENT, TRANSPORTATION AND OTHER ISSUES

### 1. Solid waste management

- Waste reduction,
- Reuse and recycling
- Waste disposal
- Extended producer responsibility

#### International Organizations

UN-HABITAT has general responsibility for the issue of solid waste management within the UN system. Waste reduction, including recycling and reuse, is also an important part of cleaner production programmes, such as those of UNEP and UNIDO.<sup>3</sup>

The World Bank supports solid waste management projects, often as components of municipal development or modernization projects, environmental management projects, water supply, sanitation and pollution control projects, environmental institution building, or emergency reconstruction projects.<sup>4</sup>

WHO promotes the safe management of health-care wastes. It has projects in this field with several other UN agencies including UNEP/SBC, UNDP, and UNICEF. Programme activities include: development of technical guidance materials for health-care waste assessment, treatment and disposal; guidance for developing national action plans and guidelines; and capacity building at the national level. WHO is also working with member states to develop national policy and guidelines for solid waste management.<sup>5</sup>

IMO deals with the international control over dumping at sea and sets guidelines for ship scrapping.<sup>6</sup>

#### Global Partnerships

The Collaborative Working Group on Solid Waste Management in Low- and Middle-Income Countries, with participants ranging from major international organizations, such as the World Bank, UN-HABITAT and WHO, to donor countries, other organizations and experts, has organized a number of workshops focusing on issues like private sector participation, including micro-enterprise, for solid waste service delivery and ultimate disposal options, and provides an international mechanism for promoting exchange of information and cooperation.<sup>7</sup>

<sup>3</sup> <http://www.uneptie.org/pc/pc/waste/waste.htm>

<sup>4</sup> [http://www.worldbank.org/urban/solid\\_wm/swm\\_body.htm](http://www.worldbank.org/urban/solid_wm/swm_body.htm)

<sup>5</sup> [http://www.who.int/water\\_sanitation\\_health/Environmental\\_sanit/health\\_care\\_waste.htm](http://www.who.int/water_sanitation_health/Environmental_sanit/health_care_waste.htm) and [www.healthcarewaste.org](http://www.healthcarewaste.org).

<sup>6</sup> [http://www.imo.org/About/mainframe.asp?topic\\_id=325#dumping](http://www.imo.org/About/mainframe.asp?topic_id=325#dumping)

<sup>7</sup> <http://melissa.org/cwg/>

## Regional Activities

At the regional level UN-HABITAT, in cooperation with UNEP and ECA, has a programme on Sustainable Waste Management for African Countries, including waste minimisation, recycling and reuse, and informal sector micro-enterprises that link income generation to environmental protection.<sup>8</sup>

ECLAC has projects on solid waste management for small and medium sized enterprises and is currently undertaking a research project on the costs and benefits of solid waste policies to different social groups.<sup>9</sup>

ESCAP addresses solid waste under the Kitakyushu Initiative, which deals with recycling, landfill management and waste reduction. To identify and review different approaches and targets in urban environmental management, seminars and pilot projects are conducted.<sup>10</sup>

ESCWA has programmes on waste management through advisory services and technical cooperation with its member states. Within its renewable energy programmes, ESCWA conducts assessment studies and develops project proposals on waste management and utilization for biogas production, briquetting and gasification of rural waste as well as electricity production from urban waste.

WHO collaborates with the Japan International Cooperation Agency (JICA) and the South Pacific Regional Environment Programme (SPREP) in conducting, since 2001, an annual four-week training course on municipal solid waste management for Pacific island countries.

The OECD has a “Working Group on Waste Prevention and Recycling,” which deals with solid waste management, including hazardous wastes. OECD conducts research in these areas, including extended producer responsibility, holds workshops and issues recommendations for member states with regard to waste prevention, waste minimisation and waste disposal.<sup>11</sup>

The EU has several pieces of legislation on waste management aimed at limiting environmental impacts. Recent legislation, for example on waste electrical and electronic equipment and end-of-life vehicles, have also incorporated product design requirements to minimise the environmental impacts at the disposal phase.

## 2. Urban planning and construction

- Urban planning and land use
- Construction standards and materials
- Building operation and maintenance

## International Organizations

Building materials and construction technologies is one of the three focus areas of the Housing Policy and Development Section of the UN-HABITAT, as part of the implementation

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<sup>8</sup> <http://www.unhabitat.org/programmes/urbansanitation>

<sup>9</sup> <http://www.eclac.cl/dmaah/>

<sup>10</sup> <http://www.unescap.org/enrd/environment/activities/kitakyushu/initiative.htm>

<sup>11</sup> <http://www.oecd.org/EN/home/0..EN-home-532-nodirectorate-no-no-no-8.00.html>

of the Habitat Agenda, with a focus on enhancing local capacities for environmentally sound production of building materials and construction techniques.<sup>12</sup> In cooperation with the Together-Foundation, UN-HABITAT maintains a “Best Practices Database,” which contains over 1600 solutions to common social, economic and environmental problems of urban areas.<sup>13</sup>

The UNEP International Environmental Technology Centre (IETC) with offices in Osaka and Shiga, Japan focuses on strengthening the capacity of local authorities, institutions, NGOs and communities in the identification, assessment, evaluation and selection of appropriate building technologies and infrastructures. It conducts research on tools and concepts for the design and assessment of the sustainability impacts of materials, components and technologies used in buildings and their construction in developing countries, and conducts awareness raising programmes at national, regional and international levels.<sup>14</sup>

The UNDP Public-Private Partnerships for the Urban Environment (PPPUE) supports partnerships at the local level. Focusing on small and medium-sized cities, PPPUE works with all potential stakeholders, including investors, service providers, regulators, users, and experts to meet the challenge of providing basic urban environmental services.<sup>15</sup>

The WHO Healthy Cities programme aims to put health on the agenda of decision-makers in the fields of urban planning and decision-making, to build a strong lobby for public health in local (municipal) government and to assist in developing holistic, popular and participatory approaches to dealing with health issues in the urban environment. The Healthy Cities programme has been de-centralised to the six WHO Regional Offices, where partnerships are established to seek health opportunities in urban development.<sup>16</sup>

The World Bank has several programmes in the area of urban development, including city development strategies with analysis of the city’s prospects for economic and social development and poverty reduction, identification of priorities for investment and development assistance and implementation of this vision through partnership-based actions. The World Bank also has housing and land programmes to make housing markets more efficient in providing adequate shelter for all city dwellers with particular focus on low-income families.<sup>17</sup>

### **Global Partnerships**

The Sustainable Cities Programme (SCP) is a joint UN-HABITAT/UNEP facility for building capacities for urban environmental planning and management. The programme takes cross-sectoral and stakeholder participatory approaches to promote urban environmental governance processes for sustainable urban growth and development. Currently the SCP operates in 20 main demonstration and 25 replicating cities around the world. Through expanded and more systematic collaboration with related international initiatives such as the PPPUE and the ILO Advisory Support Information Services and Training (ASIST) programme, the SCP

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<sup>12</sup> <http://www.un-habitat.org/programmes/housingpolicy/>

<sup>13</sup> <http://www.bestpractices.org/>

<sup>14</sup> <http://www.unep.or.jp>

<sup>15</sup> <http://www.undp.org/ppp/about/index.htm>

<sup>16</sup> [www.who.int/hpr/archive/cities/](http://www.who.int/hpr/archive/cities/)

<sup>17</sup> <http://www.worldbank.org/urban/>

addresses new issues such as sustainable mobility and improved basic urban services for the poor and marginalized groups.<sup>18</sup>

Through the partnership Local Capacities for Global Agendas, UN-HABITAT and UNEP develop local capacities linking local development priorities and opportunities with the global norms established in UN-HABITAT's global campaigns (e.g. participation, accountability, security) and UNEP's and other environmental conventions (e.g. climate change, land-based marine pollution, biodiversity). Strategies are being developed with the international local government community (through the World Associations of Cities and Local Authorities Coordination (WACLAC) and the United Nations Advisory Committee of Local Authorities (UNACLA) by means of international meetings such as the World Urban Forum (WUF) and the annual partners meeting of the Sustainable Cities Programme<sup>19</sup>

### **Regional Activities**

ECLAC promotes sustainable urban and housing policies at the national level. and offers training on sustainable urban development for policy makers and managers.<sup>20</sup>

ESCAP, in implementation of the Habitat II Agenda, encourages innovative urban planning using ecological management, through forums such as the Kitakyushu Initiative Seminars where concepts such as industrial ecology support sustainable development of urban industrial complexes.<sup>21</sup>

ESCWA is studying human settlement problems in member States with a special focus on housing policies and security of tenure, applying a multidisciplinary programme dealing with the social, economic, environmental and physical aspects of cities, towns and villages and their sustainability. In addition, ESCWA promotes trends in building design, construction and materials, as well as codes of practice for efficient use of energy in the building sector.

ECE conducts in-depth analyses and assessments on housing policies and land administration in countries with economies in transition.<sup>22</sup>

OECD recently published a report on environmentally sustainable buildings, challenges to governments in this area, and policies that can address them. It is based on an analysis of the environmental and economic impacts of the building sector. Related work in this sector is ongoing in OECD.

### **Civil Society**

The International Council for Local Environmental Initiatives (ICLEI) is an international association of local governments implementing sustainable development. ICLEI serves as an information clearinghouse on sustainable development by providing policy guidance, training

<sup>18</sup> <http://www.unhabitat.org/wssd/followup.html>

<sup>19</sup> <http://www.unhabitat.org/wssd/followup.html>

<sup>20</sup> <http://www.eclac.org/dmaah/>

<sup>21</sup> <http://www.unescap.org/esd/main.asp>

<sup>22</sup> <http://www.unece.org/env/hs/welcome.html>

and technical assistance, and consultancy services to increase local governments' capacity to address global challenges.<sup>23</sup>

### 3. Transport

- Clean fuels and vehicles
- Public and alternative transportation
- Urban and regional transportation planning

#### International Organizations

UN/DESA provides advisory services to governments and technical support for transport projects relating to sustainable development. Services focus on transportation planning and policy making to reduce emissions, increase efficiency, and promote sustainable modes of transport. Current work focuses on promoting integrated public transport systems, cleaner fuels and vehicles and clean fossil fuel technologies. UN/DESA is the lead organization in a broad partnership for United Nations Car Free Days.<sup>24</sup>

UNEP has a voluntary initiative with the automotive industry, termed a Mobility Forum, providing a platform for sharing environmental best practice experience and developing new strategies for sustainable mobility.<sup>25</sup>

UN-HABITAT has an Urban Transport Planning Management Programme that conducts field studies and expert group meetings to develop a range of policy options and management tools in the field of urban transport. This includes operational research and field demonstration projects in the area of demand management and using non-motorized transport as a tool for poverty alleviation.<sup>26</sup>

The World Bank focuses on restructuring publicly-owned transport enterprises, cutting public sector deficits in the transport sector, improving maintenance and rehabilitation, supporting commercialisation of road management and finance, and improving rural accessibility. The World Bank's Clean Air Initiative promotes efforts to improve air quality in cities through partnerships and sharing knowledge and experiences.<sup>27</sup>

UNCTAD provides technical assistance to member countries for identifying improvements to transport networks to address bottlenecks impeding the development of trade.<sup>28</sup>

IMO addresses air pollution from ships, including through the 1997 "Regulations for the Prevention of Air Pollution from Ships." IMO has an action programme to facilitate the entry into force of the Regulations, including development of implementation guidelines.<sup>29</sup>

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<sup>23</sup> <http://www.iclei.org/>

<sup>24</sup> <http://www.un.org/esa/sustdev/sdissues/energy/op/op.htm>

<sup>25</sup> <http://www.uneptie.org/energy/act/tp/amf/index.htm>

<sup>26</sup> <http://www.un-habitat.org/programmes/urbantransport/>

<sup>27</sup> <http://www.worldbank.org/cleanair>

<sup>28</sup> <http://www.unctad.org/Templates/Page.asp?intItemID=1965&lang=1>

<sup>29</sup> [http://www.imo.org/Environment/index.asp?topic\\_id=233](http://www.imo.org/Environment/index.asp?topic_id=233)

## Global Partnerships

The Partnership for Cleaner Fuels and Vehicles was launched at the Johannesburg Summit. The Partnership is lead by the US Environmental Protection Agency, UNEP and UN/DESA, and is open to any entity willing to contribute time, resources or expertise. The major objectives of the Partnership are: to help developing countries develop action plans to eliminate leaded gasoline and start to phase down sulphur in diesel and gasoline fuels; to support the development and adoption of cleaner fuel standards and cleaner vehicle requirements by supporting exchange of information and successful practices; to develop public outreach materials, educational programmes and awareness campaigns; to adapt economic and planning tools for clean fuels and vehicles; to support the development of enforcement and compliance programmes; and to foster partnerships among key stakeholders within and between countries to facilitate the implementation of cleaner fuel and vehicle commitments. UNEP will carry out the clearinghouse function.<sup>30</sup>

The Global Initiative on Transport Emissions (GITE) is a joint project of the World Bank and the United Nations in cooperation with the private sector to facilitate cooperation among automotive and petroleum industries, developing countries and international agencies to promote energy efficiency in the transportation sector, to contribute to a more sustainable use of energy, and to contribute to sustainable development in the developing world.<sup>31</sup>

## Regional Activities

ESCAP provides technical advice and promotes knowledge sharing to assist member governments in developing efficient regional and interregional transport linkages, improving infrastructures and promoting sustainable tourism at the national, sub-regional and regional levels.<sup>32</sup>

ESCWA conducts studies and assists member countries in developing measures and technologies for efficient and cleaner energy use in the transport sector, particularly the use of compressed natural gas.

In Europe, ECE and WHO jointly administer a Transport, Environment and Health Pan-European Programme (PEP), which is conducted in cooperation with the European Commission, UNEP, OECD and the European Conference of Ministers of Transport. The PEP focuses on the implementation of activities for the integration of environmental and health aspects into transport policy, demand side management and modal shifts, and urban transport.<sup>33</sup>

The WHO Regional Office for Europe has a number of research projects on the health impacts of transport,<sup>34</sup> such as the development of tools for integrating Health Impact Assessments (HIA) into transport decision-making processes, the development of integrated software for health and transport efficiency, and the HIA Methods and Strategies<sup>35</sup> programme.

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<sup>30</sup> <http://www.un.org/esa/gite/cleanfuels/index.html>

<sup>31</sup> <http://www.un.org/esa/gite>

<sup>32</sup> <http://www.unescap.org/ttd/index.asp>

<sup>33</sup> <http://www.who.dk/transport/MainActs/20020924>

<sup>34</sup> [http://www.who.dk/transport/HIA/20021009\\_2](http://www.who.dk/transport/HIA/20021009_2)

<sup>35</sup> <http://www.who.dk/eprise/main/WHO/Progs/HMS/Home>

The WHO Regional Office for the Western Pacific is working with the Asian Development Bank to develop a monitoring system for health impacts of air pollution in Metro Manila.

The OECD, in cooperation with UNEP, has a programme on capacity building for environmentally sustainable transport (EST) strategies in Central European countries. OECD also conducts research on decoupling transport impacts and economic growth, focusing on non-technical measures and demand management approaches to encourage sustainable transport patterns.<sup>36</sup>

EU Member states have promoted unleaded petrol through lower taxes compared to leaded petrol.

NEPAD has identified infrastructure development as a priority, and several transport projects, including roads, highways, airports, seaports, railways and waterways, are at various stages of development.<sup>37</sup>

#### **4. Energy efficiency and renewable energy**

- Industrial energy efficiency
- Household energy efficiency
- Renewable energy markets

As noted above, the framework is not intended to address generally the energy sector or the issue of access to energy, but will focus on improving the efficiency and sustainability of energy consumption in the industrial, commercial and residential sectors and on creating or strengthening markets for renewable energy.

As most international programmes on energy focus on the energy sector and access to modern energy services, with a component on energy efficiency, this section covers major UN and other international programmes addressing sustainable energy, with an emphasis on those relating directly to energy efficiency.

#### **Intergovernmental Processes / Bodies**

UNFCCC is an intergovernmental process that provides a forum for exchange of information and cooperation with regard to climate change issues and related energy issues. The secretariat supports exchange of information through national communications and workshops, analysis of emerging policy issues, development of guidelines for reporting greenhouse gas emissions and removals, technical review of emission inventories, and raising public awareness for climate change.<sup>38</sup>

#### **International Organizations**

Most UN agencies and other international and regional organizations are working on various aspects of energy, including energy efficiency and markets for renewable energy, as

<sup>36</sup> <http://www.oecd.org/EN/home/0,,EN-home-518-nodirectorate-no-no-no-25,00.html>

<sup>37</sup> <http://www.avmedia.at/nepad/indexgb.html>

<sup>38</sup> <http://unfccc.int/>

indicated below. There has never been a regular inter-agency coordination mechanism on energy. In preparation for the Johannesburg Summit, a UN Ad Hoc Inter-Agency Task Force on Energy<sup>39</sup>, chaired by UN/DESA, was established to coordinate activities, but the mandate of the Task Force ended with the Summit. The UN Chief Executives Board (CEB) is considering future UN system arrangements for follow-up to WSSD, including on energy.

UN/DESA analyses global energy trends and their environmental impacts, developments in new energy technologies, including renewable energy, and the environmental and socio-economic impacts of various policy options and strategies. UN/DESA promotes energy efficiency and use of renewable energy in rural areas through technical assistance and workshops.<sup>40</sup>

UNEP's Energy Programme addresses the environmental consequences of energy production and use, such as global climate change and local air pollution. Its main activities include capacity building for the Clean Development Mechanism, promoting energy efficiency through cleaner production approaches, promoting the development of renewable energy through rural renewable energy enterprise development projects, and promoting investment in energy efficiency and renewable energy projects by working with a variety of financial institutions.<sup>41</sup>

GEF serves as the financial mechanism of the UNFCCC and is the leading source of funding for clean energy projects in developing countries. GEF-financed energy projects focus on removing barriers to the adoption of cost-effective energy conservation and renewable energy technologies, reducing the long-term costs of low greenhouse gas-emitting energy technologies and promoting use of less energy intensive forms of transportation.<sup>42</sup>

IAEA assists countries in building capabilities for analysing energy-economic-environmental interactions by transferring modern planning methods, training for model development and application, and interpreting, synthesizing and applying model outputs to policy formulation<sup>43</sup>. IAEA also serves as a global focal point for nuclear cooperation.<sup>44</sup>

WHO examines the links between global climate change and the impact on human health, in close collaboration with WMO and the IPCC. At the country level, WHO assists Member States in carrying out Health Impact Assessments (HIAs) of energy projects, particularly dams and provides capacity building in the field of HIA. Reducing the burden of disease associated with indoor air pollution is an important goal of the WHO, and it works with governments and NGO partners on the promotion of domestic energy sources that help reduce or eliminate the source of indoor air pollution.

The World Bank has an Asia Alternative Energy Program (ASTAE) to mainstream renewable energy and energy efficiency services in all Bank sectors and to provide assistance in

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<sup>39</sup> <http://www.un.org/esa/sustdev/iaenr.htm>

<sup>40</sup> <http://www.un.org/esa/sustdev/enr.htm>

<sup>41</sup> <http://www.unep.org/themes/energy/>

<sup>42</sup> <http://gefweb.org/Projects/projects-Projects/PROGLIST.pdf>;  
[http://gefweb.org/Operational\\_Policies/Operational\\_Programs/operational\\_programs.html](http://gefweb.org/Operational_Policies/Operational_Programs/operational_programs.html)

<sup>43</sup> <http://www.iaea.org/worldatom/Programmes/Energy/pess/pessindex.shtml>

<sup>44</sup> <http://www-tc.iaea.org/tcweb/default.asp>

the identification and preparation of renewable energy and energy efficiency projects and improve local technical expertise and institutional capability.<sup>45</sup>

UNESCO promotes the use of renewable, environment-friendly sources of energy through capacity building and awareness raising, including through the World Solar Programme<sup>46</sup> and the Global Renewable Energy Education and Training Programme (GREET),<sup>47</sup> with particular emphasis on Africa.

For UNDP, the four priority areas for work on energy are strengthening national energy policy frameworks for poverty reduction and sustainable development, improving rural energy services, promoting clean energy technology, and increasing access to investment finance for sustainable energy development. Most UNDP country offices work on sustainable energy, with the major focus being energy efficiency, renewable energy and energy planning.

UNIDO supports UNFCCC with capacity building and technology needs assessments in Africa and Asia, and with evaluations of energy-efficient industrial technology. In addition, through its technical cooperation, UNIDO promotes industrial energy efficiency and the introduction of rural energy programmes based on clean and renewable energy sources.<sup>48</sup>

UNCTAD has a Carbon Market Programme that focuses on exploring the economic, trade and investment impacts of climate change in developing and transitional countries, and works to promote their effective participation in the emerging carbon market through research, capacity building and the facilitation of information exchange.<sup>49</sup>

WMO provides guidance material and organizes training seminars, focusing on using climate information in the development and operation of new and renewable energy systems based on resources such as biomass, hydropower and solar and wind energy.<sup>50</sup>

FAO assists developing countries in meeting their energy requirements in relation to agriculture, forestry and fisheries, with a focus on promoting a more diversified resource base, including renewable energies, while reducing woodfuel consumption and increasing energy efficiency.<sup>51</sup>

### **Global Partnerships**

The DECADES project is an inter-agency project on databases and methodologies for comparative assessment of different energy sources for electricity generation, incorporating health and environmental issues. The project is carried out jointly by the European Commission, ESCAP, IAEA, the World Bank, OECD, OPEC, UNIDO, WMO and the International Institute for Applied Systems Analysis (IIASA).<sup>52</sup>

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<sup>45</sup> <http://www.worldbank.org/astae>

<sup>46</sup> <http://www.unesco.org/science/wsp/>

<sup>47</sup> <http://www.unesco.org/science/wsp/greet/index.htm>

<sup>48</sup> <http://www.unido.org/doc/5071>

<sup>49</sup> <http://r0.unctad.org/ghg/>

<sup>50</sup> <http://www.wmo.ch/index-en.html>

<sup>51</sup> [http://www.fao.org/sd/EN2\\_en.htm](http://www.fao.org/sd/EN2_en.htm)

<sup>52</sup> <http://www.iaea.or.at/worldatom/Periodicals/Bulletin/Bull372/bertel.html>

The Global Network on Energy for Sustainable Development is a joint initiative of UNEP, UNDP, UNIDO, UN/DESA and the World Bank, with UNEP as administering agency. It links outstanding energy centres in industrialised and developing countries and promotes energy efficiency and the use of cleaner fuels.<sup>53</sup>

The World Bank and UNDP, with support from donor countries, sponsor the Energy Sector Management Assistance Programme (ESMAP) as a global technical assistance programme, which has operated in some 100 countries. ESMAP activities include country energy assessments, technical studies, strategic advice, best practice dissemination, pre-investment work, seminars, workshops, and study tours.<sup>54</sup>

The Global Village Energy Partnership is a 10-year programme to reduce poverty and enhance sustainable development through the accelerated provision of modern energy services, including renewable energy, to under- or unserved populations in rural and peri-urban areas. International organizations involved are UNDP, UN/DESA, World Bank and UNEP.<sup>55</sup>

The Photovoltaic Market Transformation Initiative (PVMTI) is an initiative of the International Finance Corporation (World Bank Group) and the Global Environment Facility to accelerate the commercialisation and financial viability of photovoltaic technology in the developing world. PVMTI investments seek to prove the viability of a number of different business models, ranging from partnerships with industry using existing distribution networks to joint ventures between photovoltaic companies and finance institutions providing credit for solar customers.<sup>56</sup>

### **Regional Activities**

ESCWA promotes measures and technologies for upgrading energy efficiency and disseminating renewable energy applications, mainly through capacity building programmes in the region. In addition to providing technical assistance in the formulation of strategies, ESCWA analyses regional policies and measures for the sustainable management of the region's energy resources and examines trends and their environmental impacts, with specific emphasis on upgrading energy efficiency in the building, industry and transport sectors.<sup>57</sup> ESCWA's Renewable Energy Promotion Mechanism<sup>58</sup> aims at fostering sub-regional and regional cooperation to accelerate the field application of renewable energy and energy conservation technologies.

ECLAC conducts research and capacity building in the area of energy efficiency and renewable energy markets, including assessment of greenhouse gas emission trends for Latin America and the Caribbean, costs and environmental benefits of environmental investments, and the effects of various government policies on the use of sustainable energy sources.<sup>59</sup>

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<sup>53</sup> [http://www.johannesburgsummit.org/html/sustainabledev/p2\\_managing\\_resources/208\\_global\\_network.pdf](http://www.johannesburgsummit.org/html/sustainabledev/p2_managing_resources/208_global_network.pdf)

<sup>54</sup> <http://www.worldbank.org/html/fpd/esmap/>

<sup>55</sup> [http://www.johannesburgsummit.org/html/sustainable\\_dev/p2\\_managing\\_resources/global\\_village1207.pdf](http://www.johannesburgsummit.org/html/sustainable_dev/p2_managing_resources/global_village1207.pdf)

<sup>56</sup> <http://www.pvmti.com>

<sup>57</sup> <http://www.escwa.org.lb/divisions/sdpd/energy.html>

<sup>58</sup> [http://www.escwa.org.lb/information/publications/copies/enr\\_01\\_10\\_part2.html](http://www.escwa.org.lb/information/publications/copies/enr_01_10_part2.html)

<sup>59</sup> <http://www.eclac.cl/analisis/TIN65.htm#9>

ESCAP offers training in industrial and household energy efficiency and conservation to governments, managers and consumer organizations in the region. It also promotes energy efficiency through advisory services and technical cooperation.<sup>60</sup> ESCAP is currently implementing a project to improve access of rural populations to clean and affordable energy services through capacity building on renewable energy training and rural energy development planning.<sup>61</sup>

ECE aims at improving energy efficiency, mainly in countries in transition by capacity building, identification of energy efficiency investment projects, improving the networking in the area of energy efficiency, enhancing dissemination of environmentally sound technologies and encouragement of implementation of energy efficiency standards. It promotes technical cooperation in applying clean coal technologies and elaborates guidelines on energy pricing and removing unsustainable energy subsidies.<sup>62</sup>

NEPAD has identified the lack of energy as a critical bottleneck for African development. It has recommended among others to strive for development of solar energy and to develop the hydropower potential of the rivers basins in Africa. NEPAD set the goal to increase access to reliable and affordable commercial energy supply in Africa from 10 to 35% or more within 20 years, reversing environmental degradation that is associated with the use of traditional fuels in rural areas.<sup>63</sup>

The Latin American Energy Organization (OLADE) aims at facilitating integration and coordination of energy policies in Latin America. OLADE aims at improving energy efficiency and supports the development of renewable energies.<sup>64</sup>

The International Energy Agency (IEA), affiliated with OECD, has a variety of programmes providing information and promoting international cooperation on sustainable energy, including the Solar Heating and Cooling Programme<sup>65</sup> and the Energy Technology Data Exchange as well as on energy efficiency, renewable energy and decarbonisation. IEA also runs a major energy and environment programme.<sup>66</sup>

The Energy Charter, primarily European in membership, is a multilateral treaty to strengthen the rule of law on energy issues by creating a level playing field among countries. The Energy Charter Treaty provides the broadest multilateral framework of rules in existence under international law governing energy cooperation. It has currently 51 signatories plus the EC. A number of international organizations have observer status. The Charter promotes free trade in energy material, freedom of energy transit and energy efficiency and has a dispute settlement mechanism.<sup>67</sup>

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<sup>60</sup> <http://www.unescap.org/enrd/energy/eff.asp>

<sup>61</sup> <http://www.unescap.org/enrd/energy/renew.asp>

<sup>62</sup> <http://www.unece.org/energy/nrg/home.html>

<sup>63</sup> [http://www.avmedia.at/cgi-script/csNews/news\\_upload/NEPAD\\_2dINFRASTRUCTURE\\_2edb.AA0412301.pdf](http://www.avmedia.at/cgi-script/csNews/news_upload/NEPAD_2dINFRASTRUCTURE_2edb.AA0412301.pdf)

<sup>64</sup> <http://www.olade.org.ec/idiomas/ingles/default.htm>

<sup>65</sup> <http://www.iea-shc.org/>

<sup>66</sup> <http://www.etde.org/>

<sup>67</sup> <http://www.encharter.org>

## Civil Society

The World Energy Efficiency Association (WEEA)<sup>68</sup> is a private, non-profit organization composed of developed and developing country institutions and individuals. WEEA maintains a website directory of institutions concerned with energy efficiency and conducts meetings, seminars and training sessions. Other international non-governmental organizations providing information and promoting international cooperation in sustainable energy development include the International Solar Energy Society (ISES),<sup>69</sup> the World-wide Information System for Renewable Energy (WIRE), the Center for Analysis and Dissemination of Demonstrated Technologies (CADDET),<sup>70</sup> the Organization for the Promotion of Energy Technologies (OPET) Network,<sup>71</sup> The Energy Efficiency and Renewable Energy Clearinghouse,<sup>72</sup> and the Energy Ideas Clearinghouse.<sup>73</sup>

## 5. Chemical management and hazardous waste

### Intergovernmental Processes and Bodies

The Intergovernmental Forum on Chemical Safety (IFCS),<sup>74</sup> with WHO as administering agency, provides an international forum and an Information Exchange Network on Capacity Building for the Sound Management of Chemicals. The Johannesburg Plan of Implementation calls for further development, by 2005, of a strategic approach to international chemicals management based on the Bahia Declaration on Chemical Safety and Priorities for Action beyond 2000, adopted by the Forum in 2000. The Forum meets every three years and will hold its fourth session in November 2003. It is open to participation by governments, intergovernmental organizations, international organizations and non-governmental organizations.

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal<sup>75</sup> is committed to protecting human health and the environment against adverse effects resulting from the generation, movement and management of waste. Current activities cover a broad range of issues including the health and environment impacts of biomedical wastes and end-of-life electrical and electronic products, used oil, used lead-acid batteries, obsolete stocks of pesticides and the environmentally sound recycling of ships.

The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade<sup>76</sup> and the Stockholm Convention on Persistent Organic Pollutants<sup>77</sup> are also important international forums for cooperation on chemicals, although these Conventions have not yet entered into force.

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<sup>68</sup> <http://www.weea.org>

<sup>69</sup> <http://www.ises.org>

<sup>70</sup> <http://www.caddet.org> and <http://www.caddet-re.org>

<sup>71</sup> <http://erg.ucd.ie/thermiewww/opetnetwork.html>

<sup>72</sup> [http://www.nrel.gov/documents/erec\\_fact\\_sheets/erec.html](http://www.nrel.gov/documents/erec_fact_sheets/erec.html)

<sup>73</sup> <http://www.energy.wsu.edu/ep/eic/>

<sup>74</sup> <http://www.who.int/ifcs/>

<sup>75</sup> <http://www.basel.int/>

<sup>76</sup> <http://www.pic.int/en/viewpage.asp>

<sup>77</sup> <http://www.pops.int/>

## International Organizations

The UNEP Chemicals Programme<sup>78</sup> includes work on assessment of chemicals, including persistent toxic substances and mercury, as well as the development of strategic approaches to chemical management. The International Register of Potentially Toxic Chemicals (IRPTC)<sup>79</sup> is the international clearinghouse for pollutant release and transfer registers (PRTRs) and leads the effort to exchange PRTR-related information through its website. UNEP has also developed a code of ethics on international trade in chemicals, an inventory of information sources on chemicals, and a dataset of screening information for high volume chemicals.

IAEA is the lead agency for nuclear waste management. Through symposia, workshops, research projects, databases, handbooks, newsletters and websites, it collects, evaluates and circulates technical information for national programmes on spent nuclear fuel management, storage and waste disposal and site reclamation. The Agency develops international safety standards as a basis for national laws and regulations. It publishes safety guides and safety reports covering all aspects of radioactive waste from medical, industrial, power and other applications. It provides technical assistance, advice, training, practical demonstrations, and peer reviews on everything from facility design to decommissioning. IAEA also serves as the Secretariat of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.<sup>80</sup>

The World Bank, which is an implementing agency for the Montreal Protocol on substances that deplete the ozone layer, helps countries accomplish their ozone protection objectives through strategic planning, policy formulation and technical support.<sup>81</sup> The World Bank is also working with countries on the implementation of the Stockholm Convention on POPs.<sup>82</sup>

WHO is taking a lead, in collaboration with UNEP Chemicals and the IFCS, in the follow-up to the Stockholm Convention with respect to the development and promotion of alternatives to DDT for malaria vector control. It is providing technical support to Member States relying on DDT for malaria control to develop proposals, for submissions to the GEF, to study the cost-effectiveness of alternatives and establish a framework of Integrated Vector Management for their delivery to malaria endemic communities.

IMO addresses transport by ship of chemicals and hazardous waste, including nuclear waste, mainly by developing international codes and guidelines. As lead agency, in cooperation with ILO and the Basel Convention, IMO also develops international guidance to ensure safer and more environmentally friendly procedures and methods for recycling of ships.<sup>83</sup>

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<sup>78</sup> <http://www.chem.unep.ch/irptc/>

<sup>79</sup> <http://www.unep.org/unep/program/hhwb/chemical/irptc/home.htm>

<sup>80</sup> <http://www.iaea.or.at/worldatom/Documents/Legal/jointconv.shtml>

<sup>81</sup> [www.worldbank.org/montrealprotocol](http://www.worldbank.org/montrealprotocol)

<sup>82</sup> [www.worldbank.org/pops](http://www.worldbank.org/pops)

<sup>83</sup> [http://www.imo.org/Newsroom/mainframe.asp?topic\\_id=741](http://www.imo.org/Newsroom/mainframe.asp?topic_id=741)

## Global Partnerships

The Inter-Organization Programme for the Sound Management of Chemicals (IOMC)<sup>84</sup> provides a mechanism for coordinating efforts of intergovernmental organizations in the assessment and management of chemicals. Participating Organizations are FAO, ILO, OECD, UNEP, UNIDO, UNITAR and WHO. The WHO is the administering organization for the IOMC and provides secretariat services to the Inter-Organization Coordinating Committee (IOCC).

The Globally Harmonized System for Chemical Classification and Labelling (GHS),<sup>85</sup> under the IOMC, is intended to enhance public health and environmental protection, as well as reduce barriers to trade, by promoting common, consistent criteria for classifying chemicals and developing compatible labelling and safety data sheets. UNITAR is leading an initiative to assist developing countries implement GHS through technical cooperation. In cooperation with ILO and IOMC, UNITAR is also drafting guidance to assist countries in strengthening national capacities to develop national strategies for hazard communication.<sup>86</sup>

The International Programme on Chemical Safety (IPCS), managed by the WHO, provides expert advice and technical assistance on chemical safety issues. The two main roles of the IPCS are to establish a scientific basis, using health and environmental risk assessment, for safe use of chemicals, and to strengthen national capabilities for chemical safety.<sup>87</sup>

The Global Information Network on Chemicals (GINC), hosted by Japan, is an international source of information and provides networking arrangements on chemicals. The purpose of GINC is to promote generation and circulation of chemical-related information among all countries and international organizations for the promotion of chemical safety. Participating agencies are WHO, ILO, UNEP and OECD, with the support of the National Institute of Health Sciences in Japan.<sup>88</sup>

The Basel Convention has, as a priority for its second decade, the development of strategic partnerships with government, municipalities, and philanthropic and not-for-profit partners, leveraging private sector commitment where appropriate. The Convention has launched a Mobile Phone Partnership Initiative to address related hazardous waste issues, with commitments from the 10 global manufacturers. Regional centres will operate as the main delivery mechanism for the Convention and, as appropriate, for other chemical-and-waste-related multilateral agreements.

## Regional Activities

OECD produces guidelines for safety testing on chemicals, develops criteria for use in the Globally Harmonised System for classification and labelling of hazardous chemicals, and organises the testing and hazard assessment of large numbers of high production volume chemicals. With respect to chemical factories, OECD has prepared Guiding Principles on chemical accident prevention, preparedness and response, as well as tools to assist countries in

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<sup>84</sup> <http://www.who.int/iomc/>

<sup>85</sup> <http://www.ilo.org/public/english/protection/safework/ghs/>

<sup>86</sup> <http://www.unitar.org/cwm/>

<sup>87</sup> <http://www.who.int/pcs/>

<sup>88</sup> <http://www.nihs.go.jp/GINC>

setting up Pollutant Release and Transfer Registers. A more holistic approach to chemical safety is supported by projects on sustainable chemistry and chemical product policies.<sup>89</sup>

## 6. Organic Food Products

### International Organizations

FAO is the major international organization addressing food, fibre, forestry and fisheries, including organic agriculture. Within its Organic Agriculture Programme, FAO is coordinating inter-governmental collaboration on organic standards, inspection, certification and accreditation. The joint WHO/FAO Codex Alimentarius Commission is developing guidelines for the production, processing, labelling and marketing of organically produced foods.<sup>90</sup>

UNEP provides information on the environmental impacts of food production and consumption, introducing the life-cycle approach for policy making and industry practices and promoting cleaner production in the food processing and clothing sector.<sup>91</sup>

UNCTAD assists developing countries in understanding opportunities and constraints for exports of environmentally preferable products. UNCTAD does market research and supports capacity building through training and technical assistance in the area of organic products and trade, especially with regard to the proliferation of standards and governmental regulations in the organic market.<sup>92</sup>

### Global Partnerships

The International Task Force on Harmonisation and Equivalence in Organic Agriculture, a joint initiative of the International Federation of Organic Agricultural Movements (IFOAM), UNCTAD and FAO, was launched in February 2003. The Task Force serves as an open-ended platform for dialogue between public, private and civil society bodies involved in trade and regulatory activities in the organic agricultural sector, in order to facilitate international trade. Besides exploring opportunities for harmonisation, equivalence and mutual recognition of organic agriculture standards, regulations and conformity assessment systems, the Task Force will discuss measures to facilitate access to organic markets, in particular by developing countries and smallholders.<sup>93</sup>

## B. POLICY INSTRUMENTS

### 1 General policy instruments and analytical tools

#### (a) General policy instruments

- Taxes and subsidies
- Other economic instruments
- Trade policies

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<sup>89</sup> <http://www.oecd.org/EN/home/0,,EN-home-519-nodirectorate-no-no-no-8,00.html>

<sup>90</sup> <http://www.codexalimentarius.net>

<sup>91</sup> <http://www.uneptie.org/pc/agri-food/home.htm>  
[http://www.uneptie.org/pc/cp/library/catalogue/cp\\_training.htm](http://www.uneptie.org/pc/cp/library/catalogue/cp_training.htm)

<sup>92</sup> [http://r0.unctad.org/trade\\_env/test1/openF1.htm](http://r0.unctad.org/trade_env/test1/openF1.htm)

<sup>93</sup> [http://r0.unctad.org/trade\\_env/test1/openF1.htm](http://r0.unctad.org/trade_env/test1/openF1.htm)

## International Organizations

UN/DESA has organized a series of international expert group meetings on financial issues for sustainable development, with a focus on economic instruments such as subsidy reform, the role of environmental taxes and tradable permits, as well as ways and means of promoting a greater role for the private sector in financing sustainable development.<sup>94</sup>

UNEP provides overviews and guidelines on the precautionary approach, subsidy reform, intellectual property rights and integrated assessment of trade-related policies in order to assist negotiators, policy-makers and practitioners in assessing the environmental impacts of macro-economic policies, including trade and trade related policies, based on widely accepted sustainable development criteria. UNEP also provides guidelines on the integration of environment and economic accounting.<sup>95</sup>

UNCTAD addresses the effects of environmental requirements on access to markets, through analysis, and technical assistance for developing countries in responding to those requirements.<sup>96</sup>

The World Bank provides countries with environmental analytical work at both country and sector levels. It also provides technical assistance for the development of environment-related policies. The World Bank has undertaken extensive research in the area of integrated policies and inter-linkages of economic and environmental policies.<sup>97</sup>

## Regional Activities

ESCWA conducts projects to promote sustainable environmental policies and environmental management culture.<sup>98</sup>

ECLAC conducts research and offers training on the development and use of policy instruments and institutional structures combining sustainable development and economic policy, including fiscal and trade policies.<sup>99</sup>

ESCAP, in cooperation with UNDP, has undertaken a study to identify the major challenges to environmental governance in the region, outlining key instruments that need to be put in place to improve environmental governance. As a follow-up to this study, a number of activities are planned to strengthen the capacities of countries in environmental governance.<sup>100</sup>

OECD collects and analyses information on the use of economic instruments in Member countries. A database on environmentally related taxes, fees and charges has been developed,

<sup>94</sup> <http://www.un.org/esa/sustdev/estema1.htm>

<sup>95</sup> <http://www.unep.ch/etu/etp/acts/manpols/index.htm>

<sup>96</sup> [http://r0.unctad.org/trade\\_env/test1/openF1.htm](http://r0.unctad.org/trade_env/test1/openF1.htm)

<sup>97</sup> <http://lnweb18.worldbank.org/ESSD/essdext.nsf/41ByDocName/Environment> and  
<http://publications.worldbank.org/ecommerce/catalog/simple-search?has%5fresults%5fp=1&search%5ftype%5fto%5fpass=title&search%5ftext=Environment>

<sup>98</sup> <http://www.escwa.org.lb/divisions/sdpd/environment.html>

<sup>99</sup> <http://www.eclac.cl/dmaah/>

<sup>100</sup> <http://www.unescap.org/enrd/environment/publications/sdap/sdap.pdf>

while a complementary database on the use of other instruments is being prepared. OECD has working groups on integration of environmental policies with sectoral and other economic policies. Other working groups deal with inter-linkages of trade and environment, as well as investment and environment.<sup>101</sup>

The EC is developing an Integrated Product Policy (IPP) with the aim of minimising the environmental impacts of products throughout their life-cycles.

### **(b) Analytical tools**

- Life-cycle analysis
- Indicators
- Technology and policy impact assessment
- Impacts of globalization and urbanization
- Impacts of changes in developed countries on developing countries
- Environmental accounts, green GDP

### **International Organizations**

The UNEP Division of Technology, Industry and Economics (DTIE, Paris), in cooperation with the Society for Environmental Toxicology and Chemistry (SETAC), manages a Life-Cycle Initiative,<sup>102</sup> which includes partners from all stakeholder groups, aiming at developing tools based on the life-cycle approach and facilitating their application, in particular in developing countries. UNEP also develops and promotes the use of environmental technology assessment, environmental and economic accounting, and environmental impact assessment, mainly through research and training workshops.

The UN Division for Sustainable Development has developed a number of indicators of sustainable consumption and production as part of its work on indicators of sustainable development.<sup>103</sup> The UN Statistics Division has developed the System of Integrated Environmental and Economic Accounting (SEEA) as part of the System of National Accounts. The Statistics Division also participates in the London Group on Environmental Accounting, which is an informal forum to share experience in developing and implementing satellite environmental accounts linked to the System of National Accounts.<sup>104</sup> The Statistics Division maintains an Energy Statistics Database, while IAEA has organized a programme on indicators for sustainable energy development, in cooperation with UN/DESA, ECE and the International Energy Agency.<sup>105</sup>

WHO is providing guidance and access to experience and tools for health impact assessments of development and investment strategies and projects, including in the context of environmental and other impact assessments.<sup>106</sup> WHO is now developing methods for estimating

<sup>101</sup> <http://www.oecd.org/EN/about/0,,EN-about-471-nodirectorate-no-no-no-8,00.html>

<sup>102</sup> <http://www.unep.org/pc/sustain/lca/lcini.htm>

<sup>103</sup> <http://www.un.org/esa/sustdev/isd.htm>

<sup>104</sup> <http://unstats.un.org/unsd/environment/londongroup.htm>

<sup>105</sup> <http://www.iaea.or.at/worldatom/Press/Focus/IaeaWssd/Energy.html>

<sup>106</sup> [www.who.int/hia](http://www.who.int/hia)

the fraction of disease burdens that can be attributed to environmental and social health determinants, including production and consumption patterns.

The World Bank publishes data for over 50 environmental indicators annually in the “World Development Indicators”.<sup>107</sup>

The Basel Convention, as part of its work on the environmentally sound disposal of hazardous waste, has programmes on the application of a life-cycle approach to end-of-life mobile phones and ship dismantling. The Basel Convention is also involved in work on economic instruments and trade issues.<sup>108</sup>

### **Global Partnerships**

On globalization, the Capacity-Building Task Force for Trade, Environment and Development (CBTF), a joint initiative of UNEP and UNCTAD, assists developing countries through capacity building to enhance understanding of trade-environment linkages, address trade-related environmental problems and environment-related trade problems, and participate effectively in international negotiations.<sup>109</sup>

### **Regional Activities**

ESCWA has several programmes on trade and environment as well as environmental statistics.

ECLAC monitors the development of environmental policies in the region and publishes a status report on sustainable development in Latin America and the Caribbean.<sup>110</sup>

ESCAP has a project to promote the development and use of indicators of sustainable development for the region.

The ECE Convention on Environmental Impact Assessment (EIA) in a Transboundary Context stipulates the obligation of Parties to assess the environmental impact of certain activities at an early stage of planning. It also lays down the general obligation of states to notify and consult each other on all major projects under consideration that are likely to have a significant adverse environmental impact across boundaries. The EIA Convention is to be supplemented by a Protocol on Strategic Environmental Assessment (SEA), which aims at ensuring that environmental and health considerations are taken into account in the development of plans and programmes.<sup>111</sup>

## **2. Changing consumption patterns**

- Consumer information
- Labelling, eco-labels

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<sup>107</sup> [www.worldbank.org/data/wdi2003/index.htm](http://www.worldbank.org/data/wdi2003/index.htm)

[www.worldbank.org/environmentaleconomics](http://www.worldbank.org/environmentaleconomics)

<sup>108</sup> <http://www.basel.int/>

<sup>109</sup> <http://www.unep-unctad.org/cbtf/cbtf2/firstpage.htm>

<sup>110</sup> <http://www.eclac.cl/analisis/TIN51.htm>

<sup>111</sup> <http://www.unece.org/env/eia/>

- Public procurement policies
- Consumer organizations
- Consumer protection
- Education and public information

### **International Organizations**

UNEP/DTIE has a Sustainable Consumption Programme that supports and facilitates efforts to promote more sustainable consumption patterns, working with governments, business and non-governmental organisations, particularly consumer and youth groups.<sup>112</sup> The programme includes organizing the UNEP Advertising and Communication Forum, monitoring application of the UN Guidelines on Consumer Protection, an Ecodesign Programme, a Youth Programme, called YouthXChange, on sustainable consumption in cooperation with UNESCO, and a Sustainable Procurement Programme.<sup>113</sup> The Sustainable Consumption Network communicates new ideas and progress among experts through a monthly newsletter.<sup>114</sup>

On sustainable consumption by institutions, the Environmentally and Socially Responsible Procurement Working Group<sup>115</sup> is an interagency mechanism for coordination and information sharing among UN agencies, multilateral development banks and other intergovernmental organisations for implementing sustainable procurement programmes. UNEP and IAPSO have developed an online database with links to eco-labelling programmes and other sources of information for public procurement<sup>116</sup>

For public procurement at the national level, UN/DESA organized a first meeting in 2002 of an international expert group on sustainable public procurement and is planning further meetings of the group.<sup>117</sup>

UNESCO has a project on Education for a Sustainable Future, which aims at promoting values and ethics through education at different levels in order to change people's lifestyles and behaviour and help to build a sustainable future.<sup>118</sup>

ILO provides capacity-building activities related to procurement, including socially responsible procurement practices.

### **Global Partnerships**

UNEP, together with UNIDO, UNESCO, Governments, Consumers International and National Cleaner Production Centers, launched a partnership on “Awareness Raising and Training on Sustainable Consumption and Production” in January 2003. The aim of the partnership is to improve the skills of decision-makers to implement sustainable consumption and production policies.

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<sup>112</sup> <http://www.uneptie.org/pc/sustain/home.htm>

<sup>113</sup> [http://www.unesco.org/youth\\_consumption/](http://www.unesco.org/youth_consumption/)

<sup>114</sup> <http://www.uneptie.org/pc/sustain/sc-net/sc-net.htm>

<sup>115</sup> <http://www.sustainableprocurement.net/index.html>

<sup>116</sup> [http://www.uneptie.org/pc/sustain/procurement/green\\_find.asp](http://www.uneptie.org/pc/sustain/procurement/green_find.asp)

<sup>117</sup> <http://www.un.org/esa/sustdev/cpppr01.htm>

<sup>118</sup> <http://www.unesco.org/education/esd/>

UN/DESA is coordinating a Collaborative Labelling and Appliance Standards Programme (CLASP), involving developed and developing country governments, industry, international organizations and NGOs, to promote the cost-effective adoption of efficiency standards and labels in developing countries.

### **Regional Activities**

ESCAP encourages environmental action through public-private partnerships for promoting sustainable consumption and production patterns in the Asia-Pacific Region.<sup>119</sup>

ECE promotes changes in consumption patterns and individual lifestyles through awareness raising, technical regulations and economic incentives in Europe.<sup>120</sup> The ECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) grants the public rights and imposes on Parties and public authorities obligations regarding access to information and public participation and access to justice in environmental matters.<sup>121</sup>

ECLAC supports projects to raise awareness of pollution problems in Latin America and the Caribbean.

OECD has a programme on sustainable consumption that combines empirical studies of consumption trends in OECD countries with conceptual and policy analysis, including the refinement of a body of indicators to assess progress towards more sustainable consumption patterns. OECD also has a programme on Greener Public Purchasing and has passed a recommendation that lists steps that governments should take to promote “green” procurement.<sup>122</sup>

The EU has a voluntary eco-label that encourages manufacturers to design environmentally friendly products and gives consumers the means to make informed and reliable choices. There is also a mandatory energy labelling scheme for certain products.

### **Civil Society**

The Global Eco-labelling Network (GEN) is an international forum of national or regional eco-labelling organizations in 21 developed and developing countries for exchange of information and coordination.<sup>123</sup>

The International Council of Local Environmental Initiatives (ICLEI) provides an important mechanism for exchange of information on sustainable public procurement by local authorities.

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<sup>119</sup> <http://www.unescap.org/enrd/environment/activities/soe.htm>

<sup>120</sup> [http://www.unece.org/env/europe/consumption\\_patterns.htm](http://www.unece.org/env/europe/consumption_patterns.htm)

<sup>121</sup> <http://www.unece.org/env/pp/>

<sup>122</sup> <http://www.oecd.org/EN/home/0,,EN-home-496-nodirectorate-no-no-no-8,00.html>

<sup>123</sup> <http://www.gen.gr.jp>

Consumers International, with 250 member organizations in 115 countries, has been active in promoting international cooperation on consumer issues, including consumer protection and sustainable consumption. The organization has cooperated with United Nations organizations on a number of activities, including the expansion of the United Nations Guidelines on Consumer Protection.

### **3. Changing production patterns**

- Cleaner production, pollution prevention, resource efficiency
- Technology strategies
- Emissions and effluents – regulations, incentives and trading
- Product standards
- Working conditions
- Strategic industrial planning
- Pollutant reporting and registers
- Voluntary initiatives and codes of conduct
- Investment incentives
- Corporate social and environmental responsibility
- Improved management accounting
- Investment analysis

### **International Organizations**

UNIDO and UNEP have major programmes on cleaner production, including support for National Cleaner Production Centres in many countries. The Global Cleaner Production Network, based on the UNEP/UNIDO National Cleaner Production Centres Programme, facilitates knowledge sharing among cleaner production practitioners.<sup>124</sup> The UNEP Cleaner Production Programme also includes work on developing definitions and methodologies for cleaner production, promoting investment in cleaner technologies and production processes through cooperation with the financial sector, and providing policy and technical guidance to government and industry through training and information materials. UNEP also publishes a Global Status Report on Cleaner Production and Consumption. UNEP and ILO are cooperating on integrating labour issues with cleaner production.

UNEP facilitates voluntary initiatives in a number of business sectors including telecommunications, finance, tour operators, automobiles, advertising and retail marketing. Participating companies agree with the principles established for the respective initiatives and carry out joint projects and activities. UNEP also promotes corporate social and environmental responsibility by providing guidelines and surveys on corporate reporting and supporting the Global Reporting Initiative (GRI).<sup>125</sup> The Sustainable Alternative Network is a mechanism set up by UNEP and GEF to facilitate cleaner technology transfer.<sup>126</sup>

UN/DESA supports developing countries in the sustainable industrial development through assistance to governments in developing and implementing National Cleaner

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<sup>124</sup> <http://www.uneptie.org/cp/network/home.htm>

<sup>125</sup> <http://www.globalreporting.org>

<sup>126</sup> <http://www.sustainablealternatives.net/>

Technology Strategies. These strategies promote research and development activities, transfer of cleaner technologies on the basis of partnerships with domestic and foreign private companies, development and commercialisation of cleaner technologies, and modernisation of national industries.<sup>127</sup> UN/DESA also organizes an international Expert Working Group on Environmental Management Accounting (EMA) focusing on government policies and programmes for promoting corporate use of EMA to promote cleaner production.<sup>128</sup>

The World Bank Group has supported both technical assistance and lending activities aimed at increasing the adoption of cleaner and more efficient industrial investment and sees these approaches as part of standard good practice rather than as “add-on” enhancements. The World Bank Group has also published research reports, reference books and guidelines in the area of cleaner production.<sup>129</sup>

ILO works to link changing production and consumption patterns to social progress, including poverty eradication, including through the Decent Work Agenda. One key issue is to develop policies to ensure the equitable sharing of the costs and benefits of changing production and consumption patterns. ILO also provides capacity building for ministries concerned with labour, employment and social policy, and workers’ and employers’ organizations in order to contribute to the transition to sustainable production and consumption patterns. It also provides standard setting and capacity building activities related to core labour standards, occupational safety and health, vocational and management skills, and promotion of employment and income opportunities.<sup>130</sup>

### **Global Partnerships**

The Global Compact is a voluntary initiative of the Secretary-General in cooperation with industry and non-governmental organizations to promote responsible corporate citizenship. It seeks to contribute to a more sustainable and inclusive global market by embracing and implementing nine universal principles in the areas of human rights, labour and environment.<sup>131</sup>

### **Regional Initiatives**

ECLAC has a training programme on Environmental Policy-Making and Instruments for Sustainable Development in Latin America and the Caribbean. It also undertakes research and holds workshops on various issues such as corporate responsibility and environmental and micro-enterprises. ECLAC also offers capacity building in the area of environmental management.

ESCAP fosters development of a cleaner production ethic by promoting strategic environmental planning and management, including through seminars and capacity building in developing countries of the region.<sup>132</sup> ESCAP promotes cleaner production in cooperation with

<sup>127</sup> <http://www.un.org/esa/sustdev/estncts1.htm>

<sup>128</sup> <http://www.un.org/esa/sustdev/estema1.htm>

<sup>129</sup> [www.worldbank.org/pollutionmanagement](http://www.worldbank.org/pollutionmanagement)

[www.ifc.org/sustainability](http://www.ifc.org/sustainability)

[www.worldbank.org/nipr](http://www.worldbank.org/nipr)

<sup>130</sup> <http://www.ilo.org/public/english/standards/relm/ilc/ilc87/rep-i.htm>

<sup>131</sup> <http://www.unglobalcompact.org/portal>

<sup>132</sup> <http://www.unescap.org/enrd/energy/erseep.asp#SPM>

the Asian Development Bank through the North-East Asia Sub-regional Programme of Environmental Cooperation, including through training courses for pollution reduction in coal-fired plants and efficiency improvements in existing power plants.<sup>133</sup>

The ECE Convention on Long-Range Transboundary Air Pollution establishes a broad framework for cooperative action on air pollution abatement and sets up a process for negotiating concrete measures to control specific pollutants through legally binding protocols. The Convention also provides an institutional framework linking science and policy. The Pollutant Release and Transfer Register Protocol under the Aarhus Convention is expected to strengthen corporate accountability by requiring companies to report annually on their output of certain pollutants.<sup>134</sup> The ECE Industry and Enterprise Development Programme promotes the introduction of cleaner technologies as part of the restructuring of enterprises in countries in transition. Remediation of chemically polluted industrial waste sites is part of the programme.

OECD conducts research on links between environmental policy design and enterprise management, including extended producer responsibility.<sup>135</sup> It has also published guidelines for multinational enterprises, which are non-binding recommendations to enterprises, made by the thirty-seven governments that adhere to them.<sup>136</sup>

The EU has a set of common rules on Integrated Pollution Prevention and Control to ensure that through an integrated permitting process the environmental impacts of emissions from large production plants are limited and not just shifted between environmental media. There is a key legal obligation on operators to apply best available technology. To support the implementation of this principle the European Commission organises exchanges between experts from governments, industry and NGOs. The EU also has also a voluntary scheme for companies and public authorities to obtain registration to the EU Eco-Management and Audit Scheme (EMAS), which demonstrates that a company is committed to continuous environmental improvement, transparency, compliance with environmental legislation and consultation.

There are several regional forums that foster dialog among industry, government and academia in the area of cleaner production, such as the European, Asia-Pacific and African Roundtables on Cleaner Production, and the PREPARE group in Europe.<sup>137</sup>

### **Civil Society**

The World Business Council for Sustainable Development (WBCSD)<sup>138</sup> started work on corporate social responsibility (CSR) in 1997 with the founding of a CSR working group. An important part of the WBCSD work on CSR has been a series of stakeholder dialogues in both OECD and non-OECD countries, conducted through the organization's global network of

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<sup>133</sup> <http://www.unescap.org/enrd/environment/Activities/NEASPEC/index.asp>

<sup>134</sup> <http://www.unece.org/env/lrtap/>

<sup>135</sup> <http://www.oecd.org/EN/home/0,,EN-home-464-nodirectorate-no-no-no-8,00.html>

<sup>136</sup> <http://www.oecd.org/EN/about/0,,EN-about-93-3-no-no-no-0,00.html>

<sup>137</sup> <http://www.lu.se/IIIEE/ercp/>

<http://www.aprcp.org>

[http://www.prepare-net.org/strategy\\_structure/about\\_prepare/index.html](http://www.prepare-net.org/strategy_structure/about_prepare/index.html)

<sup>138</sup> <http://www.wbcasd.org>

business councils for sustainable development. The Council has also put out a number of publications on CSR.

The International Chamber of Commerce (ICC) Business Charter for Sustainable Development provides a basic framework of reference for action by individual corporations and business organizations worldwide. It has been widely recognized as a complement to environmental management systems.<sup>139</sup> Business Action for Sustainable Development (BASD), a joint initiative of the ICC and the WBCSD, is a comprehensive network of business organizations that have come together under one banner in the interests of sustainable development.<sup>140</sup>

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<sup>140</sup> <http://www.iccwbo.org/sdcharter/charter/principles/principles.asp>  
<http://www.basd-action.net/>