Issue Brief

Incorporating SCP and RE in Development Planning When Mainstreaming Poverty-Environment Issues

Definition of SCP and RE

The 1994 Oslo Symposium defined **sustainable consumption and production** (SCP) as "…the use of services and related products which respond to basic needs and bring a better quality of life while minimising the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardise the needs of future generations" (Norwegian Ministry of Environment, Oslo Symposium, 1994).

- **Sustainable consumption** takes on a different focus in developing and developed countries. In **developing countries**, where there are often insufficient accessible resources to meet basic needs, sustainable consumption would target more efficient use of resources, thereby effectively expanding the resource base to meet human needs. Examples include increasing access to energy through renewable or clean energy technologies and the use of forests for energy, food and construction in such a way that the forests are not irreversibly damaged and can regenerate themselves. In **developed countries**, where resource use is more excessive, wasteful and inefficient, the emphasis is on altering consumption patterns to achieve reduced overall material and energy use, as well as reduced intensity per unit of functional utility. Here an example could be changing consumer preferences towards organic produce, which has lower resource inputs and environmental impacts than produce from conventional farming methods.

- **Sustainable production** aims at improving products and/or production processes in order to reduce consumption of resources, use of hazardous materials and production of waste and pollutants in the provision of products. These improvements are made with due consideration of the full life cycle of products or processes, rather than confining analysis to narrow geographical or supply chain boundaries. Examples include seeking alternative raw materials for production processes, recycling waste and wastewater streams, and reducing energy use per unit of product.

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SCP thus involves achieving economic growth while respecting environmental limits, finding ways to minimize damage to the natural environment and making use of the Earth's resources in a sustainable way. SCP also has the potential to contribute to reducing environmental risks by protecting ecosystem services.

Resource efficiency refers to **the way in which resources are used to deliver value to society**. RE recognizes the need to consume fewer resources and produce less waste while delivering the same, or even more or improved, end services or products.

SCP and RE can contribute to decoupling or breaking the link between economic growth and environmental degradation so growth can continue without exceeding environmental limits.

A wide variety of programmes, policies, activities and instruments can, and do, incorporate SCP and RE. Because these **SCP and RE measures** span a broad range of sectors, they have an impact on policy making and implementation across numerous government departments.

How SCP and RE relate to poverty considerations

There are strong links between various ecosystem services and poverty, as described in the Poverty-Environment Initiative's handbook *Mainstreaming Poverty-Environment Linkages into Development Planning*. Such services include the provision of clean water, renewable energy, food, climate regulation and others—all of which take on a particular urgency for those living in poverty, who have fewer resources and therefore fewer alternatives. The outcome of many SCP and RE measures is a reduction in the pressures on and damages to ecosystems, thus contributing to their ongoing ability to provide these services. For example, SCP and RE measures may translate into protection of the following:

- **Natural environments** to provide sustainable revenues through ecotourism, agriculture, sustainable forestry, etc.

- **Water** resources to provide drinking water and sanitation through sustainable extraction and prevention of pollution events

- **Forests, marine and coastal ecosystems**, and implementation of **renewable energy alternatives**, to provide climate regulation services

In addition to ensuring the protection of ecosystem services, SCP and RE measures can directly contribute to poverty alleviation:

- Sustainable production ventures based on local conditions and resources provide sustainable **employment** in local communities.

- **Basic goods and services** (such as food or renewable energy) are provided and/or able to be accessed in a sustainable manner.

- **Information and education** are readily available on why and how to seek sustainable, more efficient and cost-effective ways of living in terms of consumption of goods, hazardous substances, health protection, waste management, cleaner production tools, etc.

- Improved, **sustainable transport** systems make for improved mobility, including access for poor people to jobs, markets and services.

- **Market access** for goods is improved through sustainable procurement policies or through environmentally preferential trade practices and certification systems.

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- Cleaner production measures minimize the hazardous chemicals entering the environment, thereby contributing to reductions both in **health** care costs and in the impacts of poor health on the ability to earn livelihoods.

How SCP and RE relate to development sectors

SCP and RE measures can span the entire spectrum of development sectors within a country or region; the sectors of emphasis vary depending on the individual country/region context. Examples of the linkages between SCP and RE measures and various development priority sectors are shown below.

HEALTH	**Protecting, developing and enhancing food sources towards better nutrition** • Promotion of sustainable fishery management • Protection of biodiversity through sustainable management of forests • Prioritization of sustainable agriculture (e.g. integrated pest management, more efficient use of fertilizer) • Implementation of organic farming and land care activities **Reducing impacts of waterborne disease through access to clean water** • Management of freshwater extraction and usage • Increased accessibility to freshwater treatment • Reduction in pesticide and herbicide use in order to reduce runoff into water bodies • Control of discharge of untreated industrial wastewater into water bodies **Limiting potential for exposure to hazardous materials through reduced hazardous materials use, reduced waste production and improved waste management** • Setting and achieving waste targets • Establishing and implementing integrated waste management plans • Introducing hazardous waste management policies • Establishing cleaner production programmes • Consumer education **Reduced respiratory disease from pollutants through increased access to cleaner energy sources** (see "Energy," next page)
WATER AND SANITATION	• Improved efficiency of water use in industry and households • More effective treatment and management of wastewater, which will lessen discharge into and pollution of water bodies • Reduced runoff of fertilizers and pesticides into rivers and lakes
TOURISM	• Promotion of local tourism initiatives • Introduction of carbon offsetting programmes • Promotion of ecotourism • Promotion of community-based tourism through community ownership and stewardship

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AGRICULTURE, FORESTRY AND LAND MANAGEMENT	**Sustainable agriculture** • Promotion of agricultural diversity • Responsible use of fertilizers and pesticides • Integrated production techniques • Implementation of crop rotation and soil management • Promotion of organic and biodynamic farming, including support to certification or labelling programmes and stimulating increased consumer demand for such products **Forestry** • Sustainable management of forests and protection of ecosystems • Promotion of community ownership and stewardship of forestry resources • Sustainable use of forest and timber products, including development of markets for products certified as being produced through sustainable forestry practices • Reducing demand for primary forestry products through recycling programmes for timber and paper
INDUSTRIAL DEVELOPMENT	• Prioritization of more sustainable sectors, and sectors that contribute to resource efficiency, within industrial strategies (e.g. producers that use recycled materials and renewable energy technology manufacturers) • Cleaner production programmes, including those focused on inputs, manufacturing processes, packaging and distribution • Focused research and development on technologies supporting cleaner production and air and water quality improvement • Waste reduction and management activities, including raising awareness in industry • Promotion of use of recyclable materials • Promotion of recycling and reduction in the use of packaging • Promotion of energy efficiency • Inclusion of SCP and RE considerations in licensing and permitting legislation • Development of resource-efficient industrial parks
ENERGY	• Promotion of renewable energy • Education programmes (e.g. on the health impacts of various energy sources such as the use of paraffin in confined spaces) • Taxes on fossil fuels • Rebates on cleaner fuels
PLANNING, HOUSING AND TRANSPORT	**Sustainable land management and use** • Effective urban planning, building and construction • Improved waste management **Housing and construction** • Design and implementation of resource-efficient housing programme specifications • Education of suppliers about materials use and life-cycle costs • Implementation of building rating schemes **Transport** • Development of mass transit systems • Creation of vehicle emissions limits and efficiency targets • Support for alternative transport fuels • Enactment of congestion charges • Improved efficiency of freight transport and logistics systems

How SCP and RE can be fit into the programmatic approach

The programmatic approach to mainstreaming outlined in *Mainstreaming Poverty-Environment Linkages into Development Planning* can—and should be—closely followed in incorporating SCP and RE into development planning. **Mainstreaming of SCP and RE is not a separate process from the overall poverty-environment mainstreaming effort.** In fact, studies focused on SCP and RE can provide country-specific evidence and help make the case to mainstream poverty-environment linkages in national development planning.

A number of specific methodologies and tools presented in the handbook are of particular relevance to the mainstreaming of SCP and RE. These include cost-benefit analysis, environmental accounting, and costing and budgeting analysis; techniques related to institutional and capacity needs assessments, including the *Capacity Assessment Methodology User's Guide* (UNDP 2007) and the *Resource Kit for National Capacity Self-Assessment* (GEF Global Support Programme 2005); and methodologies related to raising awareness and building partnerships, such as *Communicating Sustainability: How to Produce Effective Public Campaigns* (UNEP and Futerra Sustainability Communications 2005) and *The Partnering Toolbook* (Tennyson 2003).

Tools

A variety of tools can be used to identify, assess and implement SCP and RE opportunities and activities. Some of these tools were developed in other fields; some were created specifically for SCP and RE purposes. The most useful of these analytical tools include the following; see the resources section at the end of this issue brief for specific materials:

- **Life-cycle assessment** is a technique used to provide an indication of the "cradle to grave"—or even "cradle to cradle"—benefits and costs associated with SCP and RE measures. Because the approach allows for consideration of all impacts across the value chain, the results may be used to help prevent actions that may appear positive from one perspective from having negative impacts elsewhere. Take biofuels, for example. Depending on the source of the biomass used to make the biofuels, the negative environmental and social impacts associated with growing the biomass may be greater than the benefits of substitution of fossil fuels.

- ISO Standard 14040 has been developed to provide a **standardized framework in which to conduct a life-cycle assessment study**. The framework includes steps on defining the goal and scope of the study (to ensure the study is sufficiently comprehensive to capture the majority of associated impacts), data collection, information processing and interpretation.

- The **Toolbox for Analysing Sustainable Ventures in Developing Countries**, developed by the United Nations Environment Programme, supports the systematic identification, evaluation, management and promotion of sustainable ventures. It provides a framework to help answer three key questions: (1) Where are there opportunities to create value by meeting needs better and more efficiently? (2) What factors determine the success of the venture? (3) What are the costs and benefits of the venture for business, society and the environment?

- **Consumer research tools**, such as market surveys, can help map out consumption patterns and determine the likelihood of successes of sustainable consumption activities.

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- The **cleaner production framework** supports a preventive, integrated approach to analysing production cycles with an eye towards increased productivity. This improvement is achieved through more efficient use of raw materials, energy and water; promotion of better environmental performance through reduction at the source of waste and emissions; and reducing the environmental impact of products throughout their life cycle by designing environmentally friendly but cost-effective products.

- The results of **scientific assessments** such as those undertaken by the International Panel for Sustainable Resource Management can inform the mainstreaming of SCP and RE. These assessments focus on identifying interlinkages and gaps in policy and actions towards more sustainable management of renewable and non-renewable resources.

Examples of SCP and RE in development planning

Below are examples of existing or planned SCP and RE activities and international initiatives that relate to many of the development priorities listed above.

HEALTH	In **Benin**, the use of dangerous **pesticides** including Endosulfan on cotton plantations has been linked to a number of deaths of farm workers and their families, as well as to environmental degradation. Several initiatives are under way to move towards organic farming methods that do not use pesticide products, thus protecting both human health and the environment. The cities of Wuxi in **China**, Pune in **India** and Maseru in **Lesotho** have developed city-wide **integrated solid waste management plans**. These plans prioritize the promotion of appropriate disposal methods for waste, which contributes to improved sanitation, and the proper handling of hazardous waste, which reduces the risk of exposure of the public and the environment to these wastes.
WATER AND SANITATION	**Peru's Water for Everyone** programme includes 270 projects for the water and sanitation sector. Water and wastewater plants are being upgraded in many parts of the country to ensure clean water provision and reduce the time spent in fetching water; these efforts are being supported by educational activities that aim to change the "culture" of water utilization. The **African Brewery Sector Water-Saving Initiative** looks to apply cleaner production principles to realize water savings for breweries. So far, savings of 20 to 50 percent have been demonstrated.
AGRICULTURE	**Tunisia** has developed its own organic standards, certification and inspection systems for **organic products**, compatible with those of the European Union. Farms around the world can be certified under the **Rainforest Alliance**. Certification means that they meet a certain set of standards covering practices including control of water pollution, control of pesticides, and reducing waste and water consumption.
FORESTRY	Several country-specific **sustainable forestry management** programmes exist. In **Costa Rica**, the NGO FUNDECOR focuses on promotion of sustainable production and use of timber and other products from old-growth forests. **Sustainable Harvest International** works in **Belize**, **Honduras**, **Nicaragua** and **Panama**. Local field trainers have helped families plant more than 2.3 million trees and convert thousands of acres of land to sustainable uses, saving tens of thousands of acres from slash-and-burn destruction. The **Forest Stewardship Council** is a non-profit organization set up to protect the world's forests. It provides **standard-setting, trademark assurance and accreditation** services for companies and organizations interested in responsible forestry, and has offices in 46 countries. It also **develops markets** for certified products. The Rainforest Alliance provides an alternative for certifying sustainable forests and operates throughout the world.

INDUSTRIAL DEVELOPMENT	**China** has established over 270 industrial parks; in many of these, industries have been co-located to encourage **efficient use of infrastructure, equipment, logistics, energy sources, heat, water and waste disposal services.** **National cleaner production centres** have been set up in more than 40 countries with the support of the United Nations Industrial Development Organization's cleaner production initiative. A list of activities and success stories in various countries is available at **www.unido.org/index.php?id=o4545**.
ENERGY	**China** and **Nepal** are world leaders in **small-scale production of biogas** for cooking and, occasionally, lighting from agricultural and household wastes, and have active programmes for promoting these technologies. Many countries have set targets for increasing **renewable energy production**, including use of solar water heaters and cookers at the local scale. **China**, for example, has a target of 15 percent of its total energy demand to be met by renewables by 2020. In **Albania**, a project—funded by the Global Environment Facility and the United Nations Development Programme—is under way to support the development of a market for **solar water heaters**. The project aims to raise awareness about solar water heater technologies, facilitate financing of investments in these technologies, build consumer confidence, create a more transparent market for different solar water heating systems, and provide support and capacity building for manufacturers, distributors and installers. The **Mediterranean Renewable Energy Programme**, operated by the United Nations Environment Programme's Division of Technology, Industry, and Economics and the World Bank with support from the Italian Ministry for Environment and Territory, aims to reduce the cost of renewable energy by expanding markets and creating a strong market environment for renewable energy. One element of the programme is a financing initiative in the southern Mediterranean region to help banks and financial institutions build new portfolios of investment loans in renewable technology. The initiative is under way in **Egypt, Morocco** and **Tunisia**, where mechanisms have been established in partnership with local agencies to provide subsidies and support in financing and monthly payment collection on solar water heater loan and leasing arrangements.
TRANSPORT	The cities of Curitiba in **Brazil** and Bogotá in **Colombia**, as well as many **Chinese** cities, have or are planning **integrated rapid transport systems**. These systems aim to provide better public transport services than regular bus systems through, for example, dedicated lanes on roads, prepayment of fares to reduce the time drivers take to collect fares, and more frequent and express services. In **Mauritius**, sustainable mobility is part of the country's SCP programme. A **car pooling** requirement has been proposed under which only cars carrying three or more passengers will be allowed to travel to the capital, Port Louis, between 7 and 9 a.m. The objective of this measure is to reduce congestion and reverse issues associated with increased cars on the road; it will be enforced through fines, construction of a special network and a communications campaign. The use of **biofuels** to offset fossil fuel use is being explored in many parts of the world. Numerous concerns exist regarding the use of biofuels, however, including issues regarding the substitution of food crops with fuel crops and the net carbon benefit of these crops.

Resources

General information on SCP and resource efficiency

International Institute for Sustainable Development (IISD). "Overview of Issue and On-line Resources: Sustainable Production and Consumption."

"Oslo Declaration on Sustainable Consumption." 2005. **www.oslodeclaration.org**.

United Nations Environment Programme and United Nations Department of Economic and Social Affairs (UNEP and UNDESA). "The Marrakech Process." **http://esa.un.org/marrakechprocess/**.

United Nations Environment Programme, Division of Technology, Industry, and Economics (UNEP DTIE), Sustainable Consumption and Production Branch. **www.unep.fr/scp**.

United Nations Environment Programme (UNEP), Sustainable Consumption and Production Clearinghouse. **www.unep.fr/scp/nap/clearinghouse/**.

Information on regional and non-governmental organization SCP activities

African Roundtable on SCP. **www.arscp.org/**.

Asia-Pacific Roundtable on SCP **www.aprscp.net/**.

European Union (EU). 2008. "European Sustainable Consumption and Production Policies." **http://ec.europa.eu/environment/eussd/escp_en.htm**.

United Nations Environment Programme (UNEP)/Wuppertal Institute Collaborating Centre on Sustainable Consumption and Production (CSCP). **www.scp-centre.org**.

Information on SCP-related guidelines, frameworks and tools

H. Bauman and A.-M. Tillman. 2004. *The Hitch Hiker's Guide to LCA: An Orientation in Life Cycle Assessment Methodology and Application.* Studentlitteratur AB. ISBN 978-91-440-2364-9.

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United Nations Environment Programme and Society for Environmental Toxicology and Chemistry (UNEP and SETAC). "Life Cycle Initiative." **http://lcinitiative.unep.fr/**.

United Nations Environment Programme, Division of Technology, Industry, and Economics (UNEP DTIE), Sustainable Consumption and Production Branch. "Resource Panel." **www.unep.fr/scp/rpanel/**.

United Nations Environment Programme (UNEP). 2009. *Towards Triple Impact: Toolbox for Analysing Sustainable Ventures in Developing Countries.* **www.unep.fr/scp/poverty/publications**.

United Nations Industrial Development Organization (UNIDO), Cleaner Production Unit. **www.unido.org/index.php?id = o4460**.

United States Environmental Protection Agency (U.S. EPA). "Life Cycle Assessment (LCA)." **www.epa.gov/nrmrl/lcaccess/index.html**.