Taking Stock and Moving Forward

The UNIDO–UNEP National Cleaner Production Centres

Sustainable Production in Practice in Developing and Transition Countries

The international community has supported Cleaner Production initiatives in developing and transition countries since the early 1990s. UNIDO and UNEP have adopted a multi-pronged approach combining advocacy, training, industry demonstrations, policy advice and facilitation of technology transfer and investment with institutional development, through their flagship National Cleaner Production Centres. Opportunities and benefits have been demonstrated in numerous enterprises and a global network has been created that can now move forward to scale-up and mainstream resource efficiency and sustainable production for green industry and economy.

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Context

The Commission for Sustainable Development (CSD) is reviewing achievements made in developing and promoting more sustainable patterns of consumption and production. Sustainable Consumption and Production aims to widen access to goods and services for an expanding global population without jeopardizing the ecological and natural resource base that supports life on Earth. Emphasis on consumption patterns and lifestyle-choices is important as these ultimately drive the demand for goods and services. The sustainable consumption agenda strives to:

- Ensure the the provision of basic goods and services, including food, clean water, sanitation, energy, communication services and health care, in places where these are not yet sufficiently available.
- Drastically reduce the material and energy intensity of current consumption patterns and lifestyle choices.

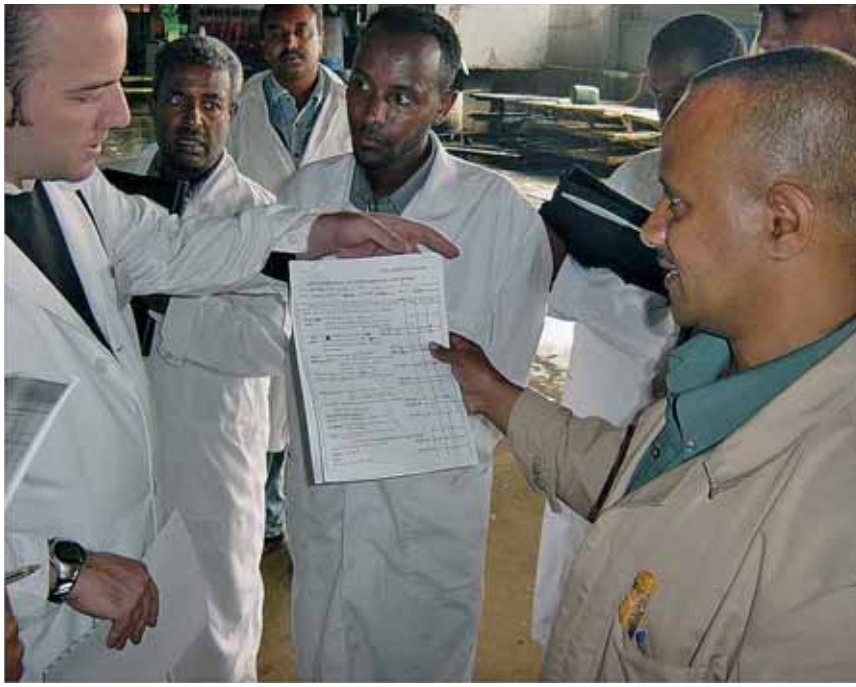
The way goods and services are produced and delivered to consumers is also an important determinant of the total environmental and social burden of consumption and production. Sustainable production initiatives address the production and distribution of goods and services. One of the leading global initiatives in adapting and adopting sustainable production in developing and transition countries is the network of National Cleaner Production Centres (NCPCs). The United Nations Industrial Development Organization (UNIDO) has, in collaboration with the United Nations Environment Programme (UNEP), established more than 45 NCPCs since 1994. The NCPCs have catalyzed the implementation of Cleaner Production (CP) methods, policies, practices and technologies in their respective home countries and beyond. Achievements have been encouraging as enterprises have reduced resource use and environmental impacts while improving their productivity and competitiveness. However, more is required to significantly contribute to the decoupling of economic development from increases in natural resource use and worsening environmental impacts. UNIDO and UNEP have, therefore, formulated a joint programme on Resource Efficient and Cleaner Production (RECP) to assist NCPCs and similar organizations to scale up their activities and impacts and mainstream sustainable production in government policy and enterprise finance.

Taking Stock: 15 years UNIDO – UNEP National Cleaner Production Centres

History

Industrialized countries have committed themselves to provide developing and transition countries access to sustainable production methods, practices and techniques. This commitment was included in Agenda 21, which was agreed upon during the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992. Subsequently, UNIDO and UNEP launched pilot Cleaner Production (CP) projects to demonstrate preventive environmental strategies in selected countries. Upon their successful completion, UNIDO and UNEP jointly launched a programme to establish National Cleaner Production Centres (NCPCs). The first batch of eight NCPCs was established during 1994-1995.

The NCPCs were established to deliver services to business, government and other stakeholders in their home country and to assist with the implementation of CP methods, policies, practices and technologies. Moreover, the NCPCs were expected to act as public advocates for CP. Each NCPC was initially set up as project that was hosted and executed by a national industry association, technical institute or university. Over time, the NCPCs have become increasingly independent from UNIDO and UNEP both administratively and financially.

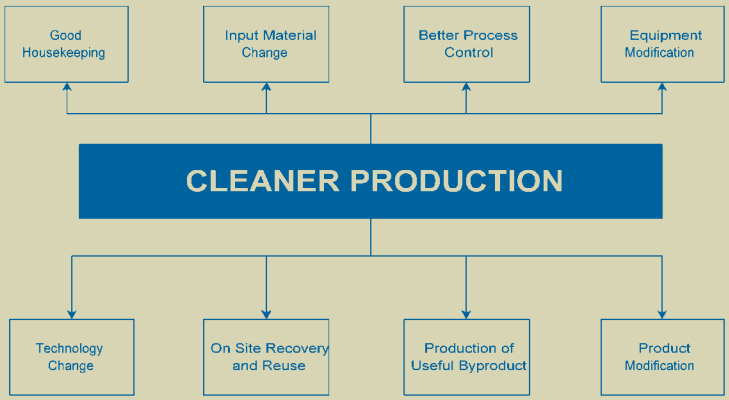


With support from the Governments of Switzerland and Austria and several other bilateral and multi-lateral donors, UNIDO and UNEP have expanded the Programme to 47 countries. The demand for establishing new national and sub-national or regional centres continues to be high.

Cleaner Production

UNEP developed in 1991 the following CP definition that is still commonly used: **"CP is the continuous application of an integrated preventative environmental strategy to processes, products and services to increase efficiency and reduce risks to humans and the environment"**. Several complementary CP techniques or practices are possible, ranging from low or even no cost solutions to high investment, advanced clean technologies. A common distinction for CP implementation in developing countries is:

1. **Good Housekeeping:** appropriate provisions to prevent leaks and spills and to achieve proper, standardized operation and maintenance procedures and practices;
2. **Input Material Change:** replacement of hazardous or non-renewable inputs by less hazardous or renewable materials or by materials with a longer service life-time;
3. **Better Process Control:** modification of the working procedures, machine instructions and process record keeping for operating the processes at higher efficiency and lower rates of waste and emission generation;
4. **Equipment Modification:** modification of the production equipment so as to run the processes at higher efficiency and lower rates of waste and emission generation;
5. **Technology Change:** replacement of the technology, processing sequence and/or synthesis pathway in order to minimize the rates of waste and emission generation during production;
6. **On-Site Recovery/Reuse:** reuse of the wasted materials in the same process or for another useful application within the enterprise;
7. **Production of Useful By-Products:** transformation of previously discarded wastes into materials that can be reused or recycled for another application outside the company; and
8. **Product Modification:** modification of product characteristics in order to minimize the environmental impacts of the product during or after its use (disposal) or to minimize the environmental impacts of its production.



Key Services

NCPCs contribute to improved environmental performance and resource efficiency of enterprises and other organizations, which also increases productivity and competitiveness. The NCPCs are professional centres that deliver and coordinate services in regard to CP methods, policies, practices and technologies.

1. **Technical Assistance and In-plant Assessments:** NCPCs work with individual enterprises to identify, evaluate and help implement CP options that are appropriate to the enterprise's processes, products or services, technologies and management systems and skills. Models of successful CP applications are thus created that demonstrate tangible economic and environmental benefits. In some cases, the assessments target specific environmental or resource use issues, for example, energy efficiency or chemicals management. In other cases, a link is established with selected environmental management tools, for example, environmental management systems or sustainable product development. Assessments are combined with training of staff to ensure sustainability and foster continuous improvement in resource productivity and environmental performance of the participating enterprises.

2. **Training:** NCPCs train a cadre of national experts that can assist enterprises and other organizations with the implementation of CP, through training of trainers or assessors. Further training could focus on advanced topics, including, for example, policy tools, Life Cycle Assessment, energy efficiency or sound management of chemicals.

3. **Information Dissemination and Awareness Creation:** NCPCs disseminate information on CP concepts, methods and benefits to raise awareness and commitment for CP. This involves the creation of websites and the publication of case studies, fact sheets and manuals, and the organization of seminars and workshops, often in collaboration with industry and/or professional associations.

4. **Policy Advice:** NCPCs work with government agencies and other stakeholders in the country to create a conducive policy environment for CP. This may include developing new strategies aimed to promote CP or providing input for other relevant policy developments and strategies.

5. **CP Technology and Investment Promotion:** NCPCs support the transfer of Environmentally Sound Technologies (ESTs) and investments therein. Specific activities include, for example: benchmarking and technology gap assessments; technology identification, screening and assessment; and preparation of investment proposals and business plans.

Principal Achievements

Individually and collectively, the NCPCs have produced valuable outputs and outcomes at various levels. The resulting tapestry of CP success stories, policies, methods and practices is diverse and rich. The following selection provides an impression of the types of principal achievements. These are illustrated with selected examples from some of the NCPCs.

Programme Level

Since its launch in 1994, the Programme has supported capacity development in 47 developing and transition countries. In each of these countries, national experts have been trained, in plant assessments completed and CP results and experiences disseminated. In addition, an institutional platform for ongoing service delivery and CP promotion was created, typically through a NCPC but in some countries through other mechanisms.

UNIDO–UNEP National Cleaner Production Centres and Programmes worldwide

Africa and Arab Region (13)	Cape Verde; Egypt; Ethiopia; Kenya; Lebanon; Morocco; Mozambique; Rwanda; South Africa; Tunisia; Uganda; United Republic of Tanzania and Zimbabwe
Asia and Pacific (7)	Cambodia; China; India; Lao People's Democratic Republic; Republic of Korea; Sri Lanka; and Viet Nam
Europe and Central Asia (15)	Albania; Armenia; Bulgaria; Croatia; Czech Republic; Hungary; Montenegro; Republic of Moldova; Romania; Russian Federation; Serbia; Slovakia; The Former Yugoslav Republic of Macedonia; Ukraine; and Uzbekistan
Latin America (12)	Bolivia; Brazil; Colombia; Costa Rica; Cuba; Ecuador; El Salvador; Guatemala; Honduras; Mexico; Nicaragua; and Peru

The Programme has fostered close cooperation between the two lead UN agencies. UNIDO assumed prime responsibility for establishing NCPCs and supporting them with the implementation of CP in enterprises. UNEP worked with different groups of NCPCs to develop and trial new management tools, policy instruments and applications. These included, for instance, sustainable product development and the integration of CP with energy efficiency. Both UNIDO and UNEP collaborated individually and collectively with other multilateral agencies and financial institutions in specific areas. Joint activities have focused on Corporate Social Responsibility (for example with the International Labour Organization), technology transfer (for example with the UN Climate Change Secretariat) and finance (for example with the International Finance Corporation).

The Programme has benefitted from long term commitments from development partners. The Governments of Switzerland and Austria have provided the largest shares of programme resources through the UN agencies. Several other countries have made further essential contributions, including Norway, Italy, Czech Republic, Slovenia, and the European Union. Moreover, several multilateral programmes (e.g. UNDP, World Bank, Global Environment Facility) and bilateral cooperation projects (e.g. Sweden, Denmark, USA and Germany) have directly utilized selected NCPCs at country-level.

Regional level

The NCPCs have started to collaborate regionally to capture knowledge, share information and resources, and foster learning.

In Latin America, *CPLatinNet* has been created to bring together cleaner production centres that had been established under the UNIDO-UNEP Programme and through other bilateral initiatives. Twelve countries participate and have implemented joint activities. A key element is the knowledge management system, developed with funding support from the Governments of Switzerland and Austria, which provides easy access to CP expertise in the region (http://www.produccionmaslimpia-la.net/).

Screen shot of the CPLatinNet Knowledge Management System

In Africa, NCPCs lead the process of regional institutionalization of Sustainable Consumption and Production (SCP). The NCPCs have been instrumental in the creation of the Africa Roundtable for Sustainable Consumption and Production (ARSCP). The Cleaner Production Centre of Tanzania provides its executive secretariat. The ARSCP developed the African 10 Year Framework Programme on SCP, which was approved by the African Ministerial Council on Environment (AMCEM). This includes activities in four priority areas: energy; water and sanitation; habitat and sustainable urban development; and industrial development. Furthermore, the NCPCs in Egypt and Mozambique have developed pilot SCP plans for cities.

Similarly, NCPCs in Asia supported and facilitated the Asia Pacific Roundtable for Sustainable Consumption and Production (APRSCP). Furthermore, NPCPs and other institutions in nine Asian countries collaborated in a three year project that demonstrated the application of CP methods for achieving energy savings and Greenhouse Gas (GHG) reductions in five sectors: pulp and paper; cement; iron and steel; chemicals and ceramics. The GHG emission reductions were verified for 38 demonstration plants and cumulated to just over 1 million ton CO2-eq per annum (www.energyefficiencyasia.org).

National level

The NCPCs are initially set up in a national institution, for example, a university, technical institute or industry association. Over time, they are expected to become financially and administratively independent from the UNIDO-UNEP Programme. This has already been achieved in about half of the Programme countries. A separate legal entity for the NCPC is highly desirable, with buy-in from government, business sector and civil society. A diversity of institutional arrangements has emerged. The Viet Nam NCPC, for example, has transformed from being a centre in the Hanoi University of Technology, into an independent enterprise, owned by the University and staff of the NCPC. In Slovakia, the NCPC split into two separate legal entities that cooperate intensively, to cater best to the dual role of service delivery to individual enterprises and public advocacy, training and information dissemination. The NCPC in South Africa achieved autonomy by means of a strong executive committee with the participation of government and business sector, while continuing to be part of its host institution, the Council for Scientific and Industrial Research (CSIR).

Complementary to their own institutionalization, NCPCs have contributed to policy change in their respective home countries. The China NCPC spearheaded the China CP Promotion Law. Adopted in 2003, this Law has created a system of mandatory CP audits for polluting enterprises and sector-specific CP technical guidelines. In Sri Lanka, the NCPC contributed to the National CP Strategy which places responsibility on all line ministries to develop and implement CP strategies.

Enterprise level

NCPCs work with enterprises and other organizations to identify, evaluate and implement CP options, through in-plant assessments. Assisted enterprises have typically implemented at least the low, or even no, cost options. This has yielded savings on costs for energy, materials, chemicals and waste and effluent management, whilst also reducing the environmental impacts. The further implementation of higher cost and advanced technology options depends on access to technology and finance. The following examples from Kenya, Peru and Sri Lanka illustrate enterprise level benefits.

Selected Enterprise Level Achievements

Kenya
Chandaria Industries Ltd. produces paper and tissue products and, with the assistance of the NCPC in Kenya, implemented a programme to incease waste water recovery and recycling. It achieved a 25% reduction in energy consumption, 50% reduction in water consumption and 60% reduction of waste and of waste water. This achieved annual savings in excess of USD 600,000, with negligible total investment.

Peru
Metalexacto is a small lead foundry. The implementation of several CP options, suggested by the NCPC in Peru, reduced the lead content in waste by 19%, enabled the recovery of nearly 350 tons lead per annum and decreased water and energy consumption. Total GHG emissions were reduced by 270 ton annually. Investment costs were low and recovered within several months.

Sri Lanka
Rathkerewwa Desiccated Coconut Mill, with the assistance of the NCPC in Sri Lanka, decreased waste output by 18 tons. Its also achieved considerable reductions in water and energy use. Total GHG emissions were reduced by almost 1,000 tons annually. This resulted in annual savings of more than USD 315,000 from an investment of less than USD 17,000.

With funding from the Government of Switzerland, several NCPCs including Colombia and Viet Nam established green credit lines for the implementation of higher cost CP options in small and medium industries. These credit lines include an incentive grant payable upon confirmation of achieved environmental benefits and a loan guarantee scheme. In Colombia, this green credit line financed, for example, the conversion from chemical to mechanical pretreatment in a metal rolling mill and the introduction of water and energy efficient dyeing equipment in a textile company.

Other NCPCs have assisted with the adaptation and adoption of innovative Environmentally Sound Technologies (ESTs). In Morocco, for example, the NCPC pioneered the two-phase pressing of olives to achieve higher oil recovery, recover olive pressings as fuel and eliminate waste water and waste.

Lessons Learned

An independent team evaluated the NCPC Programme comprehensively in 2007. This was done under the guidance of a steering committee comprised of the UN agencies and key programme donors (Governments of Switzerland, Austria and Norway). Directors and other key staff of NCPCs were also extensively consulted. The evaluation set out to determine the success of the UNIDO-UNEP NCPC Programme as a global CP capacity building programme, implemented in parallel in the then 37 programme countries. It included self assessments by all NCPCs and independent reviews in 18 countries.

The evaluation found that the Programme had been especially successful in:

- Putting CP on the agenda of businesses and government;
- Training of professional CP auditors;
- Implementation of, in particular, low and intermediate cost technology options in assisted companies; and
- Policy change and technology transfer in several countries.

Taking into consideration the ambitious goals and extensive geographic, industry sector and thematic differences within the Programme, the evaluation team found that the Programme had been highly relevant and sustainable. There was, however, also room for improvement especially in regard to increasing the effectiveness and efficiency of the implementation of the programme.

Key lessons learned included:

- CP is of continued and rising relevance, as a result of several trends, including: worsening industrial pollution and high industrial resource use; Multilateral Environmental Agreements (MEAs) entering into force; globalization and trade liberalization; and buyer pressure.
- NCPCs are appropriate for CP capacity building, but institutional development and positioning of NCPCs amidst other business services providers in their home countries deserved greater attention.
- There was a trade off between the financial independence of NCPCs and the sustained impact of the Programme.
- The NCPC programme has a great potential. The predominantly country-based funding strategy had, however, not been conducive to networking, knowledge management and learning, between NCPCs operating in different countries and regions. Moreover, the potential for cooperation and leverage with other initiatives was not fully exploited.

The evaluation confirmed that in 2007 the Programme was in its *'youth'* stage. NCPCs had been established and were undertaking relevant CP and CP-related activities, albeit at a limited scale. A richness of experiences and expertise was documented and solid progress could be confirmed, in particular, in awareness creation, training and capacity building and plant-level demonstrations. The Programme displayed great potential for effectively capturing and disseminating best practices amongst NCPCs. Thereby it could make a more substantive contribution to improving resource productivity and environmental performance of businesses in the Programme countries. This urgently required a consistent Programme strategy that would be impact-focused, deliver and value excellence and take due account of the specific situations of the host countries. A strategic approach could drive the institutionalization, positioning and profiling of NCPCs as change agents for sustainable industrial development in their home countries.

Moving Forward:
UNIDO-UNEP Resource Efficient and Cleaner Production Programme

Changing context

The global context has changed markedly since the inception of the NCPC programme in the early 1990s. Emerging economies have further strengthened their position as global manufacturing hubs. Meanwhile, environmental conditions have continued to deteriorate in developing and transition countries. The need to address climate change has become even more real and urgent. The availability of water and other resources has become an immediate concern in a growing number of locations. These conditions converge around the key challenge of decoupling economic growth from the increasing consumption of natural resources and energy and the worsening pollution of the environment. Sustainable industrial development is urgently needed to increase health, income and quality of life, while reducing resource use, pollution, waste and impact on nature. UNIDO and UNEP have both recognized these challenges and responded with organization-wide initiatives to foster Green Industry and Green Economy, respectively.

The NCPC Programme confirmed that industries in developing and transition countries have significant potential to reduce the material, energy and pollution intensity per unit of industrial output. This also reduces overall ecological footprints (carbon, water, etc.) while at the same time improving productivity and competitiveness. This is essential for the ultimate goal of decoupling of economic growth from increased resource use and further environmental degradation. The term Resource Efficient and Cleaner Production (RECP) was introduced to highlight this strategic opportunity for enterprises to simultaneously address productivity environmental and social imperatives.

Resource Efficient and Cleaner Production (RECP)

RECP recognizes that CP methods and practices generate multiple benefits that are relevant to many of today's most pressing global challenges, including:

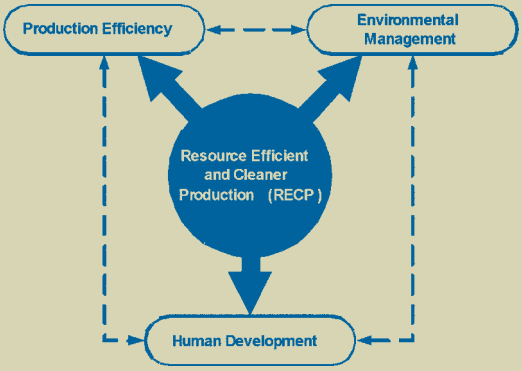
- Mitigation of GHG emissions and adapting to climate change;
- Responding to increasing scarcity of water, fuels and other materials;
- Providing decent jobs; and
- Halting environmental degradation.

RECP, therefore, builds upon CP in accelerating the application of preventive environmental strategies to processes, products and services to increase efficiency and reduce risks to humans and the environment.
RECP addresses the three sustainability dimensions **individually** and **synergistically**:

→ **Production Efficiency:** optimization of the productive use of natural resources (materials, energy and water);

→ **Environmental management:** minimization of impacts on environment and nature through reduction of wastes and emissions; and

→ **Human Development:** minimization of risks to people and communities and support for their development.



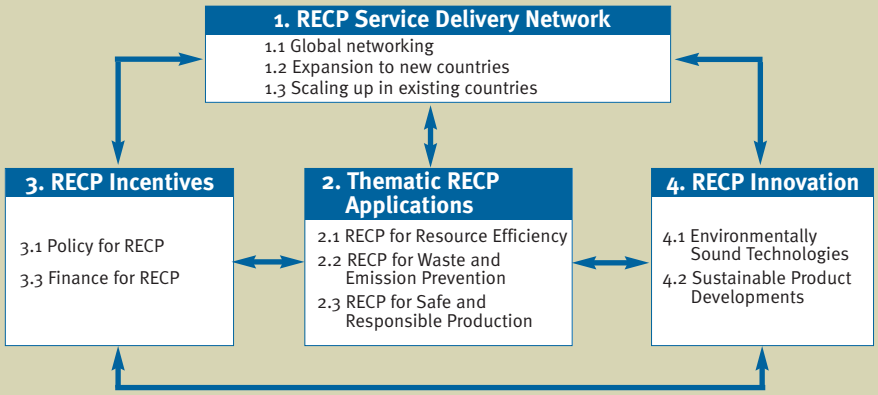
Programmatic Approach

UNIDO and UNEP incorporated the lessons learned from the NCPCs in their joint RECP programme strategy. The strategy was approved in 2009 for implementation. It supports the global imperative to decouple economic development from further environmental degradation and resource depletion. The Programme aims to improve resource productivity and environmental performance of businesses and other organizations in developing and transition countries. The envisioned principal outcome is the widespread adaptation and adoption of RECP methods, practices, technologies and policies. The past decade has demonstrated that these are applicable and relevant. The challenge is now to scale-up their application so that they become common practice rather than isolated initiatives in a few selected enterprises.

The RECP Programme is implemented through four main intervention modules. Each covers several key activities and outputs.

1. **RECP Service Delivery Network:** expanding, strengthening and further capacitating the network of NCPCs and other RECP service providers. This includes, intensive networking and knowledge management, expansion of RECP to new countries and supporting existing NCPCs to scale-up their activities and impacts;
2. **Thematic RECP Applications:** implementation of RECP in enterprises and other organizations and monitoring of results, in particular on resource efficiency, waste and emission prevention and safe and responsible production;
3. **RECP Incentives:** mainstreaming RECP into government policy and enterprise finance, to further incentivize enterprises and other organizations to implement RECP; and

4. **RECP Innovation:** strengthening and/or creating national innovation capacities to support the adaptation and adoption of Environmentally Sound Technologies and sustainable product developments that are appropriate in the national industry context.



These components are implemented in flexible combinations to ensure effective support at the national, regional and global levels and further develop of RECP methods, tools, policies and technologies. This is achieved through:

- **Global programme activities:** these are carried out at the global level and provide a framework for regional and national activities. This includes review and assessment, tools development, capacity building and knowledge management.
- **Substantive projects:** these cover the implementation of the intervention modules in the programme countries through either country-specific projects aimed at creating or building institutional capacities or through thematic projects on e.g. resource efficiency, chemicals management or low carbon industry, which may cover multiple countries.

Networking and Knowledge Management

Successful programme delivery is contingent on effective networking and knowledge management among NCPCs and other organizations that deliver RECP services. The First Global UNIDO-UNEP RECP Networking meeting was hosted by the Government of Switzerland in Luzern in October 2009. Participants decided to establish the RECP-Net. This is the global Network for RECP Promotion in Developing and Transition Countries. Its members are therefore those organizations that deliver RECP services in development and transition countries. UNIDO and UNEP, as the patron agencies of the RECP-Net, will provide support for the network through their joint RECP Programme.

The RECP-Net aims to enable and contribute to the effective and efficient implementation of RECP. It also facilitates both South-South and North-South collaboration and transfer of RECP relevant knowledge, experiences and technologies. The functions of RECP-Net will include:

- Innovation and knowledge management;
- Capacity building;
- Advocacy; and
- Quality assurance and branding.

A Charter and by-laws on Membership and Code of Conduct have been developed and were endorsed by NCPCs and other organisations during the 2009 RECP Networking Meeting in October 2009 in Luzern (Switzerland).

A key feature of the RECP Net will be knowledge management. This builds upon the experiences and lessons learned in particular at the regional level through CPLatinNet in Latin America and other regional initiatives, such as the SCP Roundtables. It is foreseen that knowledge management will contribute to creating a vibrant community of practitioners among the NCPCs and other network members. RECP-Net thereby becomes a key partner for the implementation and delivery of international environment and sustainable development commitments. This supports the agenda of the Commission for Sustainable Development in Sustainable Consumption and Production. It also facilitates the transfer, innovation and dissemination of low carbon technologies, a key challenge under the Framework Convention on Climate Change.

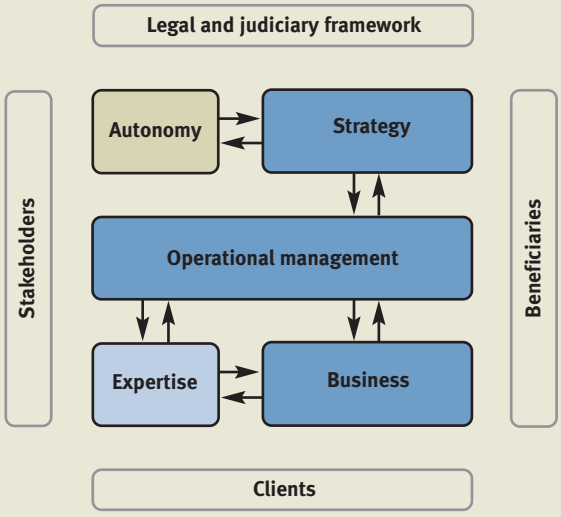
A further distinguishing feature of the RECP-Net is its technical and institutional excellence and leadership scheme. Members of the RECP-Net will receive recognition for their level of competence and achievement in RECP promotion and implementation. Moreover, various supporting tools and programmes are planned to assist network members to achieve higher levels of competence and achievement. This will include good practice primers, capacity building and training, and peer learning among members. The first primers published in 2010 with funding support from the Government of Switzerland cover *Good organization, management and governance practices for NCPCs* and *Enterprise level resource productivity and environmental performance indicators.*

Good Organization, Management and Governance Practices for NCPCs

NCPCs and other RECP Service Providers are expected to combine RECP service delivery for a private benefit to enterprises with a public good role of advocacy for RECP at the national level. The appropriate institutional framework to achieve this depends on national circumstances. To support NCPCs in their institutional development, good practices for organization, management and governance were identified and reviewed in collaboration with NCPCs in China, Guatemala, Slovakia, South Africa, Tanzania and Viet Nam.

This revealed five key good practice elements, namely:

- **Strategy:** clarity on vision, activities and necessary resources;
- **Autonomy:** ability to determine own strategy, define own activities and control own finances, each within the boundaries of the mandate as reflected in mission and vision statements;
- **Operational Management:** business processes and systems that ensure optimal use of resources for achieving the strategy;
- **Business:** identification of client needs and development of services and other products to meet these; and
- **Expertise:** capturing and retaining expertise within the organization and ensuring its effective use in service delivery.



Good Practice Elements

For each of these, practical suggestions have been developed that NCPCs can consider for strengthening their management, organization and governance.

Outlook

The NCPCs have demonstrated the potential and benefits of RECP in a wide range of enterprises covering multiple industry sectors in over 45 developing and transition countries. Waste, effluents and emissions have been reduced, the use of energy, water, materials and chemicals has been decreased and work places and communities have become safer. Typically this was beneficial for the enterprises themselves, as costs reduced, and productivity and product quality increased. This is good news for the planet and society at large!

The scale of the RECP achievements, however, does not yet match the scale of the global challenges of providing for all global citizens in a sustainable manner. It is imperative to scale-up from somewhat isolated demonstrations to wide-spread implementation and replication of RECP methods, practices and technologies. Substantively larger numbers of enterprises need to get started with RECP, for example using cluster, sector and/or value-chain approaches and employing innovative methods and tools. Moreover, it is important to ensure that options for deep cuts in emissions and resource use are also implemented. These could involve adaptation and adoption of state of art Environmentally Sound Technologies, sustainable product designs and innovative business models.

Such a transition requires incentives to be in place, including policy and enforcement where necessary. Furthermore, technology, knowledge and finance needs to be made available in ways that are appropriate and accessible to enterprises in developing and transition countries. No single initiative or policy is likely to succeed in this undertaking. Joint efforts of national governments, development partners, international organizations, the business sector and civil society, could, however, lead to success. The NCPCs and the RECP-Net are a natural partner and platform for launching and implementing such cooperative initiatives. The Joint UNIDO-UNEP RECP Programme offers developing and transition countries and their development partners an important vehicle that facilitates the required transition towards more resource efficient and cleaner production systems.

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