

The National Cleaner Production Centres: building and supporting local capacity

1. Background

The UNIDO/UNEP National Cleaner Production Centre (NCPC) programme was established in 1994 to build local capacity to implement Cleaner Production in developing countries and economies in transition. The programme is based on the premise that Cleaner Production will only be truly integrated into a country's industries and policies if local capacity is in place to sustain it. Countrywide application of Cleaner Production can only come about if the concept is promoted by professionals in the country itself and adjusted by them to suit the local conditions. UNEP contributed US \$ 1 million for start-up of the programme. Since then UNIDO has mobilised around US \$ 38 million, mainly from European countries, for establishment of National Cleaner Production Centres.

2. Mission of NCPCs

The purpose of an NCPC is to promote and implement the Cleaner Production strategy in enterprises and government policies, in harmony with local conditions, and to develop local capacity to create and meet Cleaner Production demand throughout the country.

3. How many Centres?

- **24 UNIDO/UNEP NCPCs;** Brazil, China, Costa Rica, Czech Republic, El Salvador, Ethiopia, Guatemala, Hungary, India, Kenya, Korea, Lebanon, Mexico, Morocco, Mozambique, Nicaragua, Slovak Republic, South Africa, Sri Lanka, Tanzania, Tunisia, Uganda, Vietnam, and Zimbabwe
- **About 50 more bilateral, local CPCs**

4. What do they do?

The purpose of NCPCs is to build local capacity to promote and implement preventive environmental approaches especially Cleaner Production. Their focus is not on mitigation or end-of-pipe treatment and disposal of wastes, which other institutions are already promoting. The Centres (and the personnel trained by them) do not deliver ready-made solutions, rather they train and advise their clients on how to find the best solutions for their specific problems. They do so through providing the following basic services:

- ***Awareness raising***
Awareness raising is a primary activity of an NCPC, particularly in its early years. A vital element of the Centres' awareness raising activities is in-plant Cleaner Production demonstration projects. Through these, an NCPC can show that the concept of Cleaner Production can be applied to any industrial sector of the country, resulting in economic as well as environmental benefits.
- ***Training and providing Technical Information including In-plant Cleaner Production assessments***
Training in Cleaner Production is an essential NCPC activity to build local expertise and capacity to implement Cleaner Production. Training may be:
 - 1) in-plant training, as part of in-plant demonstration projects; or
 - 2) outside plant training, conducted through workshops and seminars for specific target groupsNCPCs also offer technical assistance to individual enterprise that requests it. An important element of this technical assistance is Cleaner Production Assessments, but some NCPCs also offer services in closely related fields: energy efficiency, environmental management systems (ISO 14000), occupational safety and health assessments etc.

Being a part of international network on Cleaner Production, the NCPCs are able to access Cleaner Production information from around the world and thus have an important role in making such information available to those seeking it locally. NCPCs also have a role in disseminating case studies of Cleaner Production techniques that emerge as a result of local demonstration projects.

- ***Facilitating Cleaner Production investments***

This activity is closely linked to the In-plant assessments. Under the Norwegian project on Cleaner Production financing capacity has been built in some NCPCs (the project targeted five NCPCs at Guatemala, Nicaragua, Tanzania, Zimbabwe and Vietnam) a number of national experts have been trained in identifying and formulating Cleaner Production investment proposals.

- ***Providing policy advice to national and local governments.***

Governments particularly in developing countries and economies in transition, play an important role in providing the overall policy and economic framework for a country's development. The Centres have an important role in helping their respective governments to identify and develop the policy tools and economic instruments suitable to their country context, which would encourage greater adoption of Cleaner Production strategies.

5. What is their structure?

The Centres are hosted by national institutions (industry associations, academic institutions, research institutions, productivity organisations). They have a lean staff structure (2-15 persons) and work through host institutions, allies and other partners. Each Centre is directed by an experienced country national, supported by professionals and secretarial staff. The core staff is composed of technical persons with some Centres having professionals with economics background. Host organisation and other local stakeholders make both financial and in-kind contributions to the Centre, such as secondment of personnel, office facilities and equipment etc. Co-operation with a strong national host institution increases possibilities for the sustainability of the Centre once the project period is over. It also gives a good head start to the Centre once it comes into existence.

6. How do they operate?

A UNIDO/UNEP NCPC is established at the request of a government to UNIDO and provided UNIDO is able to find a suitable donor. The initial funding period ranges from 3-5 years. During this period, the Centres have the provision of utilising expertise from specialist institutions (called as Reference Centres) or from other mature Centres to build their own capacity. The main activities of the Centre during this period usually are:

- Awareness raising workshops to sensitise stakeholders, identify potential clients and create demand for Cleaner Production services
- Training programmes to build capacity particularly with allies and partners
- In-plant Cleaner Production assessments to demonstrate the scope and potential of Cleaner Production and also to provide hands-on training
- Technical assistance on Cleaner Production assessment and implementation as well as in related fields
- Policy advice to national and local governments

Subsequently, the NCPCs run on self-financing basis by charging for their services for work such as Cleaner Production assessment in industries, international projects (UNEP, UNIDO, World Bank etc.), training, consultancy on EMS etc. Some mature Centres have also been hired by UNIDO to train and develop new Centres.

7. What are their strengths?

- ***Strong linkage with host institution on technical aspects***

The Centres are able to draw upon the expertise, support and strength of the host institutions. As the host institution generally provides basic facilities such as office space, communication facilities, computers, laboratory facilities etc. it helps in long-term sustainability of the Centres. The standing and image of the host institution in the national context also helps in greater acceptance of the Centre amongst the stakeholders.

- ***Considered neutral because independent of government and industry***
A unique strength of the Centres is that they are considered neutral by both government and industry. The industries are therefore more open and forthcoming, as they do not have the fear of follow-up punitive or legislative actions. It may also appear as a weakness since the Centres do not have any legislative or enforcement power. The Centres thus have to ensure high levels of competence to be able to be recognised as a Centre of excellence.
- ***Close contacts with industries and government***
In the course of their work the centres establish close contacts with senior decision - makers both in government as well as business sector. This facilitates in delivering their programmes with full support from the decision - makers.
- ***Expertise on Cleaner Production and related subjects***
In order to be in business the Centres have to build their expertise not only in Cleaner Production but also in allied subjects like energy efficiency, environmental management systems etc. Their expertise has to be regularly updated and expanded to be able to cater to the wide array of demands imposed upon them.
- ***Grass-root level experience and knowledge of industries***
As mentioned earlier, one of the important activities of the Centre is to carry out demonstration project to show the scope and potential of Cleaner Production and also to provide hands-on training. During the process, the staff in the Centres gets the opportunity to acquire grass-root level experience and knowledge of industries. In due course this becomes a valuable asset for developing and implementing concrete projects and programmes in industries.
- ***Close links with international organisations***
The Centres are in close and constant touch with UNIDO, UNEP and other international organisations through projects, meetings training programmes and other events. Thus they are well aware of programmes and initiatives at international level and a willing partner to implement them.

8. What are their achievements?

According to data compiled by UNIDO, the NCPCs have so far carried out 2980 in-plant assessments, trained and developed 3700 experts and 21260 industry professionals in Cleaner Production and directly reached out to over 69000 participants through awareness raising programmes. Apart from these numbers, the main thematic achievements of NCPCs can be described as below:

- ***Have established themselves as the national focal point /Centre of excellence in Cleaner Production***
All the Centres are recognised by different stakeholders like government, industry, academia etc. as the national focal point /Centre of Excellence in Cleaner Production. They play an important role in promoting and implementing Cleaner Production in the country. The Centres are being increasingly required to technically support sub-national and local Centres
- ***Have established Cleaner Production as a well accepted preventive environmental strategy by local industry as well as government***
The Centres have played a crucial role in getting Cleaner Production accepted as an effective preventive environmental strategy. This is reflected by promulgation of Cleaner Production Acts and/or National Cleaner Production Programmes in several countries. The number of signatories to the

International Declaration on Cleaner Production is also an indicator of the high level of acceptance of Cleaner Production.

- ***Have amply demonstrated the potential and benefits of Cleaner Production***
Cleaner Production is now universally accepted as a win-win strategy resulting in economic benefits as well as environmental performance improvements. The large number of demonstration projects carried out by the CPCs has amply proven the immense potential of Cleaner Production.
- ***Have developed a good local network of CP specialists***
All the Centres have built up a strong network of Cleaner Production specialists in their respective countries by training and developing experts in allied institutions and partner organisations. In some countries private consultants have also emerged that provide Cleaner Production related services to the industries.

9. UNEP's Support in the recent past

- ***Capacity building in allied and emerging fields to enhance their service package***
In the last few years, UNEP has developed several training packages and delivered several training programmes to build capacity in the Centres in allied and emerging areas. In co-operation with InWENT, the German capacity building organisation (erstwhile CDG), training packages have been developed in the field of; Environmental Management Navigator, Cleaner Production - Sustainable Consumption-- making the connection, Environmental technology Assessment and Cleaner Production to facilitate implementation of Multilateral Environmental Agreements. Several training courses on these subjects have been held. The Centres have also organised follow-up training courses in their respective countries. Training packages have also been developed in the field of Cleaner Production financing under the Norwegian project. Apart from the project target countries (Guatemala, Nicaragua, Tanzania, Zimbabwe and Vietnam), training courses have also been delivered in other countries. An exhaustive manual on Cleaner Production - Energy Efficiency integration has been prepared under a GEF project and intensive training of personnel from NCPCs in Czech Republic, Slovak Republic, Hungary, India, China and Vietnam has been carried out. The manual has also been used as a basic resource material for the GERIAP project, being implemented by ROAP in nine countries in Asia-Pacific region.

To support the establishment of new Centres a Manual on How to Establish and Operate Cleaner Production Centre has been prepared in co-operation with UNIDO. A training programme for 17 new/upcoming Centres was organised in co-operation with InWENT.

- ***Building and projecting international networks***
In order to facilitate experience and information exchange among the Centres, UNEP has been pursuing the establishment and institutionalisation of Regional Roundtables. Such Roundtables have now been established in Europe, Asia-Pacific and Africa. Keeping pace with the time the roundtables are now called as Regional (European, Asia-Pacific, Africa respectively) Roundtables on Sustainable Consumption and Production. Several sub-regional/national roundtables have also been established.
- ***Using NCPCs as national delivery mechanisms for our programmes and projects***
NCPCs are extensively used as the national delivery mechanisms for our programmes and projects. A few examples of projects, which have been delivered through NCPCs, are;
 - ◆ GEF project on 'Promoting Industrial Energy Efficiency through a Cleaner Production/EMS Framework'.
 - ◆ Project on 'Greenhouse gas Emission Reduction in Industries in Asia-Pacific (GERIAP)'.
 - ◆ Project on 'Institutionalisation of Africa Roundtable on Sustainable consumption and Cleaner Production'.

10. UNEP's forthcoming projects and programmes

UNEP has an ambitious programme for further capacity building and enhancing the network of Cleaner Production Centres. Some of the major activities and projects proposed/planned are:

- Proposals have been submitted for establishment of Cleaner Production Centres in Serbia and Jordan
- Under the NEPAD capacity building project, proposals have been made to establish forestry based Cleaner Production Centres in selected countries in Africa
- Proposals have been submitted to Swedish International Development Agency and European Commission to build capacity in NCPCs in India, Ukraine, Sri Lanka, Vietnam, Kazakhstan, Kyrgyzstan, Kenya, South Africa, Colombia and Costa Rica on Using Cleaner Production to facilitate implementation of Multilateral Environmental Agreements
- A manual on Eco-design is being prepared which will be used to build capacity in eco-design of products selected NCPCs
- A training package is being prepared, in partnership with InWENT, on 'Cleaner Production in Industrial Estates. The package will be delivered to NCPCs in a training programme scheduled to be held in December 2004.

11. Where do we go?

It is being felt that sporadic capacity building programmes for CPCs lack the synergistic impact, require huge funds for implementation and do not necessarily lead to a sustained long-term strengthening of the institutions. It is therefore, being considered to carry out a systematic SWOT (Strength, Weakness, Opportunity and Threat) Analysis and a Needs Assessment Analysis of the CP Centres. This study would result in development of a comprehensive capacity building and institutional strengthening programme for the entire network of CPCs. Already interest has been expressed by the Norwegians for supporting such programme. Some of the possible areas where capacity needs to be built up are:

- Product related issues; eco-design of products, life cycle analysis, integrated Product Policy,
- Cleaner Production in new industrialisation; Clean technology assessment, CP assessment at industrial planning stage
- CP Financing; designing dedicated CP financing schemes, Environmental Management Accounting
- Green Supply chain; Incorporating CP in the supply chain
- Social Performance assessment in industry and SA 8000
- Clean Development Mechanism;
- Developing and implementing CP certification schemes for industries and CP assessors
- Using Cleaner Production to facilitate implementation of Multilateral Environmental Agreements
- Managing environmental risks and environmental due diligence audits
- Enhancing management and training skills
- Marketing of services

CPCs are an important network of institutions through which UNEP can deliver its programmes at the national level. To enable to do this task effectively, the capacity in existing CPCs needs to be considerably enhanced and strengthened while new CPCs should be continued to be established in countries where they do not exist so far. This would require a dedicated effort in coming years to develop and implement a holistic package of capacity building to position the CPCs as an important institutional network in developing countries to promote sustainable patterns of production and consumption.