

Promoting competitiveness and efficiency of small and medium enterprises through cleaner production in South Caucasus

Project duration: January 2009 – August 2011

Implementing organization: Regional Environmental Centre for Caucasus

Target Countries: Armenia, Azerbaijan and Georgia

Final Beneficiaries / Target groups:

Small and Medium Enterprises, Relevant national authorities, Local Experts and Consultants, Civil Society

Contact Person: Ms. Malak Shukurova (malak.shukurova@rec-caucasus.org)

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Introduction

The project was designed to promote competitiveness and efficiency of SMEs in Armenia, Azerbaijan and Georgia. Since the end of 2005 REC Caucasus is working in the field of Energy Efficiency and Cleaner Production, which is the part of current strategy aiming at intensifying cooperation with business. The REC contributes to establishing an effective economic incentive structure by providing comparative analysis of use of economic instruments, including experience from other countries and regions.

REC Caucasus is a founder of the Energy Efficiency Centre in Georgia and a project partner of the TACIS “Cleaner Production in the selected countries of the NIS: Moldova, Georgia and Kazakhstan” (CP) Project. REC Caucasus has had the opportunity to familiarize with key issues and stakeholders in the field.

The Energy Efficiency Centre has focused on stimulating energy efficiency in industry and buildings and popularization of renewable energy sources. Working with REC Caucasus, the TACIS CP project has addressed policy framework conditions and institutional capacity issues; trained consultants, enterprise staff and trainers; produced case studies of CP in action at selected enterprises; published practical guides on how to use a number of key CP tools, and prepared three “top-tips” guides giving ideas for practical action a generic guide for all enterprises sector guides for the food processing and printing industries.

South Caucasian countries have limited experience in promotion of Cleaner production and Energy projects for the business sectors. Under the supervision of Norwegian Energy Saving International (ENSI) there are established Energy efficiency and Cleaner production centers in Azerbaijan and Georgia. This centre together with REC Caucasus are providing support to different stakeholders, such as NGO's, business sector to familiarize interested community with CP and EE technology. These activities focused mainly on needs assessment and capacity building, such as trainings and also awareness raising campaigns.

The overall objective of the project – to contribute to sustainable development and minimize environmental impact from industrial sector by stimulating small and medium size enterprises (SMEs). The objective been reached via increase of SME's capability in the preparation of financial documentation for CP and EE projects. The increased possibility for getting the financial resources from local and international financial institutions, will improve their (SME's) operation capabilities to become more economically efficient, while becoming more environmentally friendly and reducing their demand on locally scarce resources.

The specific objectives of the project:

- Identification target groups of SMEs in Armenia, Azerbaijan and Georgia, interested to increase their development capabilities via additional funding from international and local financial institutions targeting toward Cleaner production and energy efficiency implementation. The target groups - Organizations (private and public companies, local government bodies, small enterprises etc), local experts and consultants;
- Preparation of training materials for the above described training courses inclusive materials for main course, examples for home work etc.
- Increasing of skills and ability of small and medium size enterprises for identification of the CP and energy efficiency measures and preparation of financial documentation packages for financing institutions;
- Raising awareness on the scarcity of resources and on possibilities of contributing to their conservation, this includes awareness raising on relevant CP issues – e.g. costs to business if they do nothing, benefits of CP, help available to businesses etc;
- Increasing competitiveness and efficiency of SMEs in the South Caucasus;
- Saving resources by introducing CP measures
- Sharing experience in the mentioned field with the enterprise trained in CP and EE techniques in other south Caucasus countries;

Outcomes

- Increasing of skills and ability of small and medium size enterprises for identification of the CP and energy efficiency measures and preparation of financial documentation packages for financing institutions;
- Sharing experience in the mentioned field with the enterprise trained in CP and EE techniques in other south Caucasus countries.

Main activities in Armenia within the project

Gathering information on SMEs and financial institutions interested.

The information on SMEs was gathered with the help of Business Unions, Farmers Associations and NGOs working on the SMEs' issues in South Caucasus countries

SMEs in Armenia was selected by several criteria, elaborated by the project team:

- Strong pollutants
- CP & EE potential
- Possibility to spread the results
- Willingness for cooperation

The donors funded Cleaner Production and Energy Efficiency initiatives and projects were identified:

- United Nations Environment Program (UNEP)
- United Nations Industrial Development Organization (UNIDO)
- Nordic Environment Finance Corporation (NEFCO)
- International Finance Corporation (IFC)
- The Global Environment Facility (GEF)

Identification of suitable target sectors

The project team has identified target sectors, given the economic significance of the sector, national priorities in country, environment pollution level and CP & EE potential.

The consultation meetings with the relevant governmental institutions, academia and civil society organizations in three countries revealed the following priority sectors for trainings:

1. SMEs processing agricultural products
2. Farmers
3. Publishing Houses

Country visits, launching of the project

All preparatory works in Armenia were fulfilled by involvement of the national office of REC Caucasus.

The inception meeting of the Project in Armenia (July 06, 2010) was attended by the representatives of different governmental, non-governmental, civil society and international organizations as well as other stakeholders who stressed the relevance of the Project to South Caucasus countries and importance of introducing CP in local business practices.

Preparation of training sessions

Two meetings and consultations with selected SMEs have been conducted for identification of their main needs and developing training programme accordingly. Training programme, materials, and case studies were developed by project team.

Organization of training sessions in Armenia

The training sessions of the Project was held in Armenia, July 07-08, 2010. Trainings were attended by the representatives of selected SMEs, and CP and EE experts. All training materials were translated on national language.

The aim of the training sessions held in, Yerevan was to stimulate local businesses for implementation of CP practices, to promote the methodology and philosophy of the Cleaner production practices, and initiate the precedence of CP implementation in the enterprises managed by the managers and technical personnel attending the training sessions.

The trainings included 6 modules, delivered to the attendees during the training sessions of 2.5 days long. Materials were delivered in local languages in Microsoft PowerPoint format. The materials were presented in the way, to be understandable for enterprise managers working in different business sectors as well as technical personnel. The training sessions included visits to the one selected enterprises, in order to show to the attendees how the CP and EE actions can be applied in practice, the procedures for walk through audit technology, preparation of action lists for the implementation and priority setting for the cleaner production measures.

Module 1 was dedicated to the description of methodology of cleaner production and energy efficiency in small and medium size enterprises. The materials presented on the sessions, include theoretical basis for cleaner production implementation, description of actions to be taken to implement continuous and preventive actions in the enterprises leading to the win-win results, when the businesses get savings while minimizing their operation costs and environmental performance of the enterprises.

Module 2 included information regarding the types of cleaner production and energy efficiency measures to be implemented, methods for their identification and assessment of priorities. The concept of systematic approach is developed and processes for decision making, planning, monitoring and targeting is discussed.

Module 3 was dedicated to the cleaner production and Energy efficiency project identification. The detailed description of the methodology of CP&EE auditing, preparation of audit reports, documentation dedicated to the enterprise managers and financial institutions to be involved in funding of identified projects is given. Description of CP instruments and tools to be employed is also provided.

Module 4 provided the description of CP instruments and tools. The tools are split into 12 subchapters including needs assessment, auditing, comparison to benchmark data specific for the sector and relevant to the specific enterprise, management and organization structure changes, establishment of the specific technical procedures and systems etc.

Module 5 presented the information regarding preparation of financial documentation for implementation of CP&EE projects. For type A (small or negligible investment projects) the format of suggested documentation dedicated to decision makers in the enterprises: general managers, CEO's and shareholders is presented. For the Type B and C projects, which requires medium and large size investments the requirements of potential financial institutions are presented. Format of financial documentation, project planning and basis of the business planning of mentioned type projects is provided.

Module 6 presented practical information and hints for CP&EE implementation, examples of successful stories in different sectors of industry. The information provided is split by water, energy, raw material saving and the methods addressed to increase overall efficiency of the production process and minimization of environmental impact caused by industry and to generate savings in production process.

The main target for two and a half day long training was to provide general information regarding cleaner production and energy efficiency methodology in order to support small and medium size enterprises to understand, how the environmental performance, business efficiency of the enterprises can be improved in practice. The enterprises are able to upgrade their operation systems in order to minimize the self price of the products, improve quality, expand their market share while improving environmental parameters and decreasing impact on water, air, soil and generally on the environment.

Training Course for SME's Representatives on Cleaner Production in Yerevan, Armenia, July 07-08, 2010



The two-day training was attended by the representatives of several small and medium business companies, such as “Lukashin” agricultural association, Federation of Agricultural Association (FAA), “Meghri Cannery” (production of canned fruit), “Conser” (production of canned food) “Sateni” (fruits and vegetables), “ARFS” LLC (ceramics production) and others (12 participants in total).

The participants were exposed to the concepts of CP, types of CP action, CP tools and techniques, performance audit, impact assessment, CP audit, tools and methods used for CP auditing and other useful topics, supported by examples from international experience.

The training also included several case studies and a site visit to the local bakery, after which a detailed analysis of the production process was made and ways for improvement were suggested. The participants were also encouraged to make presentations about their own companies and focus on identifying possibilities for CP intervention. Follow-up activities and future cooperation perspectives with REC Caucasus were discussed.

First regional training sessions in Tbilisi, Georgia.



The first regional training sessions of the Project were held on 15-16th November 2010 in Tbilisi, Georgia. Trainings were attended by the representatives of selected SMEs (5 active SMEs from each country), CP and EE experts, international organizations and as well business sector. All training materials were translated into Russian language.

The basic objective of the First Regional Training Sessions was practical work on the preparation of financial documents, in particular preparation of documents for CP projects; preparation of sample calculations for investment needs; preparation of CP Audit report; preparation of financial appraisal documents.

The first regional training sessions included 2 modules, delivered to the attendees during the training sessions of 2 days long. Materials were delivered in Russian Language in Microsoft Power Point format. The materials were presented in the way, to be understandable for enterprise managers working in different business sectors as well as technical personnel.

Module 1 was dedicated to the description of the benefits by introduction of CP in the enterprises, necessary steps for implementation of CP projects in the enterprises such as: planning and conducting of basic assessment, selection of monitoring data, description of producing process of the enterprises and identification of key production indicators.

Module 2 includes information on development of project documentation for financing of cleaner productions activities within the enterprises, investment assessment, benefit and saving assessment and as well as economical assessment.

During the first day of the training sessions the representatives of 15 SMEs from Armenia, Azerbaijan and Georgia made the presentations over the CP and EE issues, gave the operational description of their enterprises and as well as the potential for CP implementation. The study tour have been organized to paper proceeding factory "Seka Paper Georgia".

Organization of the second (final) regional training sessions in Tbilisi, Georgia.



The second (final) regional training sessions of the Project were held on 4-5th May 2011 in Tbilisi, Georgia. Trainings were attended by the representatives of selected SMEs (5 active SMEs from each country), CP and EE experts, international organizations and as well business sector.

The basic objective of the Second Regional Training Sessions was finalization of the project pipelines (for each SMEs) together with the regional and national experts of the project (the majority of the cleaner production projects was focused on introduction of energy efficiency within the enterprises) for further submission to the donor organizations and financial institutions, discussion of the results of analysis carried at the enterprises after CP trainings, expected improvements, CP effect, review of documents and requested funding and as well as identification of additional steps for promoting CP in the region.

During the two day training sessions the representatives of 15 SME's from Armenia, Azerbaijan and Georgia had short review of CP implementation, exchanged experiences from other countries and made presentations on the results of analysis carried out at the enterprises after CP trainings,

The event was finalized by general discussion on future steps for further promotion of CP in the region. The participants, most of whom did not have any knowledge and skills on CP before, confirmed practical applicability and usefulness of the gained knowledge for their businesses. The projects for application of CP in those SMEs have been submitted to the financial institutions and donor organizations during the Round Table "Towards the Green Economy: Cleaner Production as a Tool" held on 6th May 2011 in Tbilisi, Georgia.

3. Organization of regional workshop to present project results and share the experience.

3.1 Organization of regional Round Table.



The regional Round Table “Towards Green Economy: Cleaner Production as a Tool” within the Project have been organized on 6th May 2011 in Tbilisi, Georgia, next to Second Regional Training Sessions. The Round Table have been attended by the representatives of Embassies to Georgia, the representatives of SMEs selected under the project, Ministries of Environment, Ministries of Energy and Ministries of Economy from Armenia, Azerbaijan and Georgia, representative of international organizations and private sectors working in three South Caucasus countries and as well as donors, NGOs, media and other stakeholders (in general 68 participants).

The main objective of the regional Round Table was the discussion of the key finding and recommendations of the countries, review of the status of the “Green Economy” in the South Caucasus countries, identification of the major gaps in promotion of “Green Economy” and as well as major tools and strategy for CP applicable for South Caucasus countries, identification of needs and demands for promoting CP as reviewed by different stakeholders, review of existing partnership initiatives, consideration of public private partnership and sustainable network as a whole.

The regional round table included four sessions as following; **Session 1 – Overview of “Green Economy” in the South Caucasus**, **Session 2 – Overview of Cleaner Production as a tool for promotion of “Green Economy”**, **Session 3 – “Green Economy” Perspective of International Organizations**, **Session 4 – Intra Country Cooperation for Mainstreaming “Green Economy Partnership opportunities”**.

The Round Table have been opened by representative of the Embassy of Netherland to Georgia.

During Session 1 with aim of identification of the major gaps in promotion of “Green Economy” in the region short review of the status of the “Green Economy” in the South Caucasus countries have been given. Meanwhile the experience in policy development towards promotion of “Green Economy” was presented by the representatives of the Ministries of Environment of Armenia, Azerbaijan and Georgia. The participants have been shared by the EU experience and requirements for promotion of the Cleaner Production as well.

Session 2 focused on identification of the major tools and strategy for CP applicable for South Caucasus countries in such sectors as sustainable consumption, energy efficiency, green buildings, renewable energy, investment into infrastructure etc. Following the brief review of Clean Production status and latest trends in the South Caucasus countries, the representatives of the Ministries of Energy of Armenia, Azerbaijan and Georgia presented the main needs and demands for promoting Clean Production in their respectful countries.

During Session 3 the representatives of international organizations working in South Caucasus gave the perspectives of the “Green Economy”.

Session 4 focused on intra country cooperation for mainstreaming “Green Economy” Partnership opportunities. With this aim the representatives of the Ministries of the Economy of Armenia, Azerbaijan and Georgia and as well as the representatives of business associations and financial institutions presented the cross sectoral collaboration, existing partnership initiatives such as public private partnership and sustainable network as a whole.

The Round Table have been finalized by summarizing the main recommendations for identification of further steps on exploring opportunities for “Green Economy” promotion. The participants have been

informed as well as on project major outcomes and case studies of the enterprises participated in the project.

It is necessary to stress that the main recommendations of the Round Table have been reflected in the European Commission Report on Promotion of Green Economy concept in the Eastern Partnership countries

The round also provided a platform to exchange lessons learned, to transfer the experience gained during the implementation of the project and as well as brought together the results of the CP and EE initiatives from Armenia, Azerbaijan and Georgia.

Organization of the final national workshops in Armenia

The final national workshops of the Project was held in Armenia on June 10, 2011. The workshop was attended by the representatives of the Ministries of Environment, Agriculture, Economy, business sectors (Deno Gold Mining) and the representatives of SMEs, international organizations, NGOs and other interested stakeholders.

The aim of the workshops was to summarize the work done within the Project, present the project results and share with interested stakeholders the experience gained during the implementation of the Project.

During the workshop the participants have been presented with the project results as well as the outcome of the regional Round Table on the Green Economy with major focus on application the Cleaner Production as a tool.

Contribution of the Project to the European Commission's Report "Opportunities and Options for Promoting a Green Economy in the Eastern Partnership Countries".

The REC C have been invited to present the Project outcomes during the EC seminar organized within the 3rd Platform of the Eastern Partnership Initiative held on 7th July 2011. One of the main goals of the meeting was the introduction of the first draft of the EC report on the recommendation on further promotion of the GE in the EaP countries.

It is necessary to mention that the recommendations of the regional Round Table have been welcomed and further included into the final report.

(http://ec.europa.eu/environment/international_issues/pdf/report_green_economy_en.pdf)

Publication of guide for SMEs for implementation of CP

Notwithstanding the fact that the publication of the guide for SMEs have not been envisaged by the Project the REC C have developed the guideline for SMEs "Plain language guide for implementation of Cleaner Production in practice" taking into account the recommendations of the SMEs for further raising awareness between other SMEs in the region. The present manual is dedicated to the implementation of "Cleaner Production" technique in the existing and operating enterprises. The publications have been disseminated on the regional Round Table, national workshops, 7th "Environment for Europe" Ministerial Conference in Astana on 21-23 September, OECD EaP TF annual meeting and on other meetings organized in EECCA region. The electronic version of the publication can be found on the following link - <http://www.rec-caucasus.org/publications.php?lang=en>