

EaP GREEN
Partnership for Environment and Growth



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GREENING ECONOMIES IN THE EUROPEAN UNION'S EASTERN NEIGHBOURHOOD

(EaP GREEN) PROGRAMME

UNIDO RECP Demonstration component

Draft Strategy on RECP embedding in Armenian context

Yerevan

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Recommendations on adaptation and embedding RECP in Armenia based on stakeholders` feedback

The following gaps and challenges prevent the green financing from implementation:

Absence of supporting national legal institutional framework promoting support to SME financing and collaboration of all interested stakeholders (both environmentalists and economists) for improved environmental compliance, better waste management, introduction and implementation of energy efficiency and resource efficient scheme benefitting public, government and private sector.

- Availability of financing is not enough to motivate investment
- Financial institutions are still not uninterested because they can't understand technical and financial merits of RECP investment proposals
- Credit schemes are not suited for RECP investments
- Proposals are usually written poorly and/or not credit-worthy
- Some of the major obstacles that prevent the adoption of RECP by enterprises in these countries include:
 - Inadequate financing: shortage of capital, limited experience in risk analysis, legislative and asset related constraints in arranging collateral, limited use of credit financing as a resource
 - Unfamiliarity with the concept of profitable environmental investments.

Successful results have stemmed from partnerships between donor agencies and local financial institutions that understand RECP as it relates to local SMEs and business companies. Loan guarantees are a successful approach used in many European countries (Germany, Austria) and present good role for international donors.

Equity financing through Socially-Responsible Investors/Venture Capital by using screening mechanisms should be explored as means of financing RECP.

RECP solutions should be defined as productivity improvements to encourage support by credit providers.

Energy audit implementation experience in the Republic of Armenia

Energy Audit is a part of RECP Assessments. Energy audit is introduced in RA more than 10 years ago. But still there are issues regarding taxonomy, implementation procedures, etc. From this point of view Energy audit implementation experience in RA seems to be very essential for RECP strategy development, adaptation and embedding in Armenian context.

Energy audits in the Republic of Armenia are implemented in accordance with the RA law "On Energy Saving and Renewable Energy" adopted as HO-122-N of November 9, 2004 and amended as HO-130-N of April 14, 2011. Currently, the draft law on making amendments is included into the agenda of National Assembly.

The general procedure of implementing energy audit is specified by "Energy Audit Implementation Procedure" approved by decision #1399-N of August 31, 2006 of the Government of the Republic of Armenia and edited by decisions #1105-N of August 4, 2011 and #1026-N of September 10, 2015.

Energy audit Implementation is voluntary; however, there is a list of measures of energy efficiency and energy saving for mandatory application in facilities being constructed with the state funding, as approved by decision #1504-N of December 25, 2014.

Energy audit in Armenia can be implemented by certified entities. Certification, including that of physical persons, according to the procedure, can be performed by state accredited body (ies). Armenia has specialists in energy who received training/course participation certificates on energy audit of industrial facilities, residential and public buildings, and development of energy efficiency bankable projects in the framework of UNDP, WB, USAID and EU (INOGATE, ESIB, SEMISE) funded projects.

More than hundreds of energy audits were implemented in Armenia in the last five years, mainly of residential and public buildings, heating systems, street lighting and industrial sectors. Energy audits are mainly carried out in the frames of the following energy efficiency related projects financed/implemented by international organizations.

In the frames of “Improving Energy Efficiency in Buildings” UNDP-GEF/00059937 project, energy audits of more than 10 multi-apartment buildings were implemented. Based on National Standard on Building Energy Passport energy passports for 15 buildings compiled.

<http://www.nature-ic.am/improving-ee-in-buildings-reports-and-publications/>

<http://www.nature-ic.am/wp-content/uploads/2013/10/Avan-DSK-Audit-Report-ENG.pdf>.

Within activities of “Green Urban Lighting” UNDP-GEF/00074869 project energy audits of street lighting systems in seven cities/towns were completed (<http://www.nature-ic.am/publications-and-reports-gul-project/>).

Specialists of Armenian Renewable Resources and Energy Efficiency Fund performed energy audits in public buildings in the regions of Armenia to determine their eligibility for a loan from the World Bank for improving building energy performance (<http://r2e2.am/en/2011/06/r2e2-projects-2/>).

The Habitat for Humanity Armenia in the frames of the projects procured building energy audit services (<http://www.habitat.am/index.php/en/>).

As per industrial audits, loan contracts recently signed can be highlighted: of Green for Growth Fund with three Armenian banks (AraratBank, InecoBank, ACBA-Credit Agricole Bank) and of ADF (French Development Agency) with Armenian First Mortgage Company. The goal of the credit tool is to finance energy saving loans that are given based on energy audit results.

Currently National Standard AST “Methodology for performing energy audit in residential and public buildings” is developed in the frames of “Improving Energy Efficiency in Buildings” UNDP-GEF/00059937 project based on EU standard EN 16247-2.

Thematic topics of discussions and recommendations provided by stakeholders during the forums, conferences, meetings, consultations discussed and summarized:

-  **Selection and efficient use of energy source, Reduction and controls over emissions**

- Energy audits in the Republic of Armenia are implemented in accordance with the RA law “On Energy Saving and Renewable Energy” adopted as HO-122-N of November 9, 2004 and amended as HO-130-N of April 14, 2011. Currently, the draft law on making amendments is included into the agenda of National Assembly.
- The general procedure of implementing energy audit is specified by “Energy Audit Implementation Procedure” approved by decision #1399-N of August 31, 2006 of the Government of the Republic of Armenia. It was edited by decisions #1105-N of August 4, 2011 and #1026-N of September 10, 2015, but still there are certain issues for Energy Audit promotion in the Republic, as well as methodology and terminology concerns.
- Energy audit Implementation is voluntary; however, there is a list of measures of energy efficiency and energy saving for mandatory application in facilities being constructed with the state funding, as approved by decision #1504-N of December 25, 2014.
- RECP audits are including energy audits as well as discuss material, waste and water efficient use matters. RECP procedure can be simultaneously promoted.
- Motivating mechanisms to be developed in the frames of the RECP project.
- Green certificates can be considered as a motivational tool and it must belong to private sector, not to the state based on RECP, accepted standards.
- The financial tools are entering the market and the risks on energy saving and RECP loans will change over time.
- The need of investments with low interest rates to afford them.
- Internationalizing the business organizations based on ISO standards accepted in the international markets.
- Promoting financial tools in the market.
- Auditing on energy and RECP must be promoted in industry sector as well as in residential and public buildings and SMEs must have knowledge on RECP and in energy efficiency.
- The main issue is lack of information regarding RECP in the rural SMEs.
- Awareness campaigns are essential for promotion of the Primer.
- RECP implementation would create a favorable situation regardless of the political environment and corruption risks that present in any country.
- RECP tools, methods are necessary for any industry and any company operating in a market economy.
- Natural resources are limited and humankind must fit in the limit of natural resource use.
- Consistent work is needed to implement for domestication and development of RECP principles, tools, methods, terminology in Armenia and the Primer is the first step
- Setting green filter as a clean production tool.
- Rising awareness on energy efficiency and RECP through newsletters, booklets, educational programs, creating collective partnership conditions and using it as a platform.
- Promoting energy audit and RECP audit service.
- Developing and piloting scale-able model for RECP in small businesses

Selection and efficient use of materials, Reduction and utilization of waste

- The RECP must be as accessible and understandable for SMEs.

- Law for the cooperatives has been adopted by the National Assembly of RA, according to which the development of organic economy must be stimulated.
- Issue of illegal use of resources (materials, energy and water) is one of the major concerns which we need to pay attention to and to develop mechanisms to withdraw those SMEs out of the shadow.
- Mechanisms must be implemented through cooperation with ISO5001.
- Changing the financial loans given to SMEs into green loans, eco-design, etc.
- Mandatory and voluntary Energy and RECP Audits, confidentiality and trust that should be created during the audit process, trade secrets, soft loans for RECP.
- Informing and awareness rising for organic farming. Awareness rising activities are going to be held in all the regions of RA on green economy. Mechanisms need to be created for the development of green economy and organic agriculture to promote it in Armenia and have more farmers involved in organic production.
- Suggestion to provide a page in a foreseen agriculture magazine for continuous demonstration of RECP Achievements, Primer introduction and domestication strategy illustration.
- Creation of a green educational center.
- Insuring synergy, to make SME believe and consider RECP as their own tool and methodology for production improvement, and competitiveness elevation.
- Creation of a legal background for the Primer, set up legal norms, standards, technical regulations are very important. There are many issues containing trade secrets and confidential information, but ecology may not be considered as confidential or private.
- There is a need to create a platform with the cooperation of technological companies in Armenia to think about innovative solutions to be offered to business companies for the development of more productive and effective business.
- Possibilities were discussed for co-operation with banks and finding RECP solutions for SMEs to green and improve production cycles.
- Flexible financial tools must be created for crediting of RECP.
- Setup is already done, and targets are identified.
- Additional privileges should be foreseen for SMEs; energy efficiency crediting precedent already exists and may be used in RECP case.
- Legal consultation and advice are also very important.
- Other suggestions and recommendations included social advertisements, rising awareness on material efficiency through newsletters, booklets, educational programs,
- Importance to state control for the quality of imported raw materials, canned food production, along with the control over the natural gas calorific value, legal system limitations and corruption risks.
- RECP implementation will create a favorable situation regardless of the political environment, legal system imperfections and corruption risks.
- Waste management is currently being dumped with unacceptable technical and environmental standards.
- Sustainable waste management is not just a technical issue about improving physical facilities and equipment but also something including regulation, local planning, environmental impact, legal structuring, financial structuring, cost recovery and tariff reform and awareness raising

- The idea is to shift SWM towards modern management of waste flows that should translate into best operational practices, namely a dedicated at-source waste separation, then reuse and recycle, and at the end disposal of the remaining waste at an environmentally sound sanitary landfill. Primer and RECP other activities have their certain role
- Development of SMEs activities with RECP mentality is of great importance
- RECP experts are not teaching the businessperson, they are helping to solve the problems by introduce new technologies and good practice, pointing out the problems, presenting diversified solutions, technical and economic calculations
- Creation of RECP technical regulations, legal norms, standards are very important. RECP Center should be responsible for RECP legal background set up
- SME legal consultation and advice service should also be the tasks for RECP Center for years of activity
- The Rapid assessments that are currently implemented in the frame of the Green clubs (after advises announced during the previous Forums) for Vanadzor and Hrazdan are more comprehensive and may be converted into business plans. Each of those SME have received from 10 to 11 RECP measures proposed for implementation comprising investment, annual savings, annual CO2 reduction, simple payback period and other characteristics
- During use, reuse, recycling of any materials always should be considered the environmental impact of those materials
- It would be great if we can prepare a stands (desks, racks, etc.) of RECP production and demonstrate those, and at the same time support business activities of SMEs
- It would be great if RECP project convert all those Rapid assessments to RECP Audits, Deep Assessments, and implement feasibility study, financial and economic analysis and provide (free) Investment Grade Audits or Business Plans to all those SME engaged in the Program
- Support the idea of creating the business plans for SME that have undergone RECP Audits and Assessments. The offer is to continue, proceed and promote RECP Audit process and present some SMEs up to Green loans.
- RECP Audit and Business plan creation methodology should be developed
- The Primer (some hard copies were distributed to SME representatives) is available, both in Armenian and English languages on www.recp.am (official bilingual website). Suggestion and request was to download and study the newly developed Primary handbook and present comments and recommendations to help RECP team to develop the final version of the Primer.
- Creation of real financial tools for crediting RECP is an issue of international organizations and government special authorities
- Social advertisements, rising awareness educational programs on Reduction and utilization of waste through newsletters, booklets etc. is also important as down-up approach measure
- The need to encourage small-scale waste-recycling initiatives that support urban and rural waste management and provide income-generating opportunities
- The concepts, methods and tools that are presented in the Primer should be ASAP domesticated, embedded and strengthened for creation a habit of the resource efficiency and clean production lifestyle in Armenia.
- Waste disposal sites currently in use do not correspond to sanitary-hygiene norms and standards, landfills degrade the landscape and occupy useful land, they are significant sources of soil degradation, water contamination, air pollution, and diseases

- Lack of awareness of proper SWM has led to slow emergence of fee-based solutions and the low prioritization accorded to SWM. This is leading to acute environmental degradation and threats to public health, in turn constraining the future development of the communities
- The main problems in this field of solid waste management are lack of legislative background and a poor management system, lack of appropriate equipment, lack of financial capacities, and a weak relationship with the public in the cities
- Waste Management service is much more efficient and transparent when a written contract or agreement exists between customers and service providers. Willingness to pay is connected to and in direct proportion to quality of services
- Separation of the two services—sanitary cleaning and SW collection and disposal—may lead to more efficient, client-oriented SW management.
- Current inefficient management options lead to the loss of valuable resources
- There is a problem of new technologies and innovations in majority of organizations
- SMEs need to trust the RECP project. RECP experts should be able to provide them with full assistance by submission individual approach and proper package of tools
- Business needs investments with low interest rates to afford them
- RECP brings new thinking and new methods that must be used in production to become more competitive
- We already have achieved substantial results by RECP project implementation
- Stakeholders should contribute for localization and development in Armenia of RECP approach, intellectual way, principles, terminology presented in the Primer.

Selection and efficient use of water source, Reduction and treatment of wastewater

- SMEs on current challenges were discussed: business benefits expected from RECP application, business risks RECP mitigate and improve, secondary use of water, countercurrent or cascaded use of water and energy, using the cleaning solvents and wastewater flows for irrigation and other purposes.
- State level policies, technologies, financial and economic tools, certificates.
- The low level of cooperation among authorities during the implementation of projects in Armenia.
- Achievements in solving problems jointly in round table meetings. In Armenia there are many motivational systems, we need to concentrate those systems in one network and make them available to the business sector to achieve better results.
- Necessity to include also new sectors to present their suggestions and aspects for the progress of RECP project.
- Hope for the continuation of the RECP project as it is a key project for Armenia, and plays great role in environmental and business terms. UNIDO highly values the success of RECP in Armenia due to the high professionalism of the people involved in this processes. A strong team has been created in the frames of the project.
- Issues of Water pipe installation to the spot of the trees for the reduction of water loses.
- Effective resource management is a new managerial sphere in our country. Resource effectiveness management is popular worldwide but in Armenia, it has low level of practical use

yet. We will have our local specialists involved in this project of RECP and will not be in need of international experts from abroad.

- Issues were discussed regarding green educational centers, insuring synergy, creation of a legal background for the Primer, set up legal norms, standards, technical regulations, creation of a platform for discussions of innovative solutions for SMEs; creation of financial tools for crediting of RECP, legal consultation and advice, etc.
- Suggestions and recommendations including social advertisements, rising awareness on water use efficiency through newsletters, booklets, educational programs, etc.
- Concerns about the threatening global ecological problems because of the organizations indifference to taking measures for eliminating environmental impacts because of their ineffectively managed operations. Suggestions for creation of sanctions, which can be applied to restrict the actions of those companies.
- Imperfect implementation framework; there are laws, but they are not enforced, there is a risk of an environmental disaster in the behavior of organizations.
- Large-scale activities, public events, hearings and other events should be implemented. Terminology, guidelines, and other materials should be developed and published.
- Developing and piloting of scale-able model for RECP in small businesses to show how business can achieve RECP benefits is essential.
- For creation of competitive product every business company operating in the market needs investment of ecologically safe methods, means and tools accepted by the world, and the RECP Primer is assisting for this objective
- Wastewater treatment is a rare luxury in rural areas of Armenia, and domestic wastewater is subjected to either direct disposal to water bodies or land
- License-to-operate was Business benefit of RECP in Kashi at the same time RECP environmental benefit was the Reduction and treatment of wastewater. Those terminology should be pronounced and used often and often to be domesticated and embedded for local SMEs
- Awareness campaigns and social advertisements are vital for advancement of the Primer and RECP in our country
- The implementation of the “Engage and learn” step in RECP domestication process in Armenia need targeted and mainstream efforts and consistent work for several years and forums are first and very successful steps for the purpose
- The aim of the forums is to demonstrate newly developed RECP introductory document “Primer” and discuss in what manner SMEs could benefit from RECP expertise, methods and tools application.
- RECP tools are necessary for every business in market economy and the methodology should be clarified to large amount of SME and that should be the “Engage and Refine” step in RECP domestication process
- It is very important to arrange discussions and increase the involvement of different private and public sectors in solving threatening problems
- Primer is an important tool in the hands of SMEs
- RECP Audits and Rapid assessments may be converted real business suggestions for SMEs

- Rising awareness on wastewater treatment through newsletters, educational open seminars have indirect influence on behavior and certain benefits
- In case if RECP is mainstreamed into business and production cycle it will become possible to support and achieve reduction of production and technology costs, increase of work effectiveness, possible improvement of the product quality, reduction of waste and air pollution costs
- SMEs need to trust the RECP project on the other hand RECP experts need to get accurate data on business performance of the particular SME to be able to make sure they offer the best solutions for the company. Already dozens of SMEs have agreed upon the cooperation considering the crucial importance of RECP audits
- There must be law on environmental payments for big companies, which harm surrounding areas by their performance
- Armenian Water and Sewerage CJSC has not built wastewater mechanical treatment plants, but they are maintaining the existing five plants. Only the half of the sewerage water is treated the rest is gone to Hrazdan River. By KfW financing a biological treatment plant is planned to be built for Lake Sevan Collector
- PH values should in the border of 6.5 and 9 is the limit for wastewater vented to Sewerage
- Laws and Norms for Clean Production and Environmental protection, as well as the sanctions and penalties are needed. Concerns about the threatening ecological problems because of the environmental impacts and ineffectively management, restriction of sanctions for those companies in Armenia.

Recommendations

The following recommendations are made for improvement of adequate legal framework to ensure an enabling environment for introducing and implementing Cleaner Production in Armenia, namely:

- Institutionalization and adoption of Green Economy centre concept and strategy, endorsement of the Green economy /RECP centre work plan. [link](#)

Suggestive action: Development and adoption “Republic of Armenia Strategy on Promotion of Resource Efficiency and Cleaner Production”. Strategy should contain a clear legal definition of CP and RECP, and be comprised of at least the following chapters:

- Chapter I. General Provisions
- Chapter II. Popularization of RECP
- Chapter III. Implementation of RECP
- Chapter IV. Incentive Measures
- Chapter V. Legal Responsibility
- Chapter VI. Supplementary/Transitional Provision

- Development and adoption of the secondary legislation, e.g. Government Decree on implementation of promotional measures, operational, economic and financial mechanisms and enforcement provisions promoting green economic development and supporting Resource efficiency and cleaner production with SMEs and business sector, especially targeting large-scale pollution companies.

- Adoption of the draft “RA Law on Conducting of Self-control for Fulfilment of Requirements of the Environmental Legislation” by industrial enterprises, stemming from 2010/75/EU Directive on Integrated Pollution Prevention and Control (IPPC).
- Development (in process) and adoption of the Framework Law on Environmental Policy, with a chapter on “Environmental Permitting and Pollution Control”. Introduce the legal definition of Best Available Techniques (BATs).
- Adopting corresponding amendments and changes in the relevant sectoral and horizontal legislation, namely:

Law / Legal Act	Proposed Amendment / Change
The Republic of Armenia Law on State Support of Small and Medium Entrepreneurship (2000, amended 2010)	To be amended: Article 3. The main directions of state support to SME: - support to innovative activities and introduction of up-to-date technologies; with a provision on state support/incentives for SMEs in transition to CP or RECP.
The Republic of Armenia Law on Energy Saving and Renewable Energy (2004)	Armenia Law on Energy Saving and Renewable Energy (2004) To be amended/reformulated: Article 8. Voluntary Certification of Energy Devices Compliance for more clarity, to eliminate the SMEs from the bureaucratic hassle of certification and labelling of all energy devices produced or imported.
The Republic of Armenia Law on Organic Agriculture (2008)	To be amended: Article 11. State Support in the Field of Organic Agriculture with a specific provision on state support/incentives in the field of organic agriculture, if the activity meets the criteria of CP or RECP
The Republic of Armenia Law on Waste (2004)	To be amended/reformulated: Article 23. Promotion of activities aimed at waste recycling and reduction of waste generation volumes for more clarity, and add a specific provision on promotion on CP or RECP. Develop and adopt a legal act (e.g. GoA Decree) to ensure actual implementation of the Article 23. Promotion of activities aimed at waste recycling and reduction of waste generation volumes.
Government of Armenia Decree №121-N on the order of licensing for activity on processing/recycling, treatment/ decontamination, storage,	Amend to simplify the bureaucratic order of licensing for activity on processing/recycling, storage, transportation and placement of hazardous wastes. Add a provision on incentives for

transportation, and placement of hazardous wastes in the Republic of Armenia (2003)	application of Environmentally Sound Technologies (EST).
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However, when establishing sound regulations that will promote RECP adoption, two basic principles have to be followed:

- The type of innovation resulting from the regulation should be decided by the industry, and not by the regulator.
- The regulation should not specify any particular technology, fostering continuous improvement.
- The adoption of the RA Laws “On Environmental and Nature Use Charges” and “On the Tariffs for Environmental Charges” and enabling secondary legislation on the issue enabled introduction of some economic mechanism system, which when enforced greatly increased revenues of the RA State Budget.