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Progress in the Areas of Energy Efficiency and Renewable Energy in Selected Countries of South-Eastern Europe, Eastern Europe, Central Asia, and in Russian Federation

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Introduction

Background

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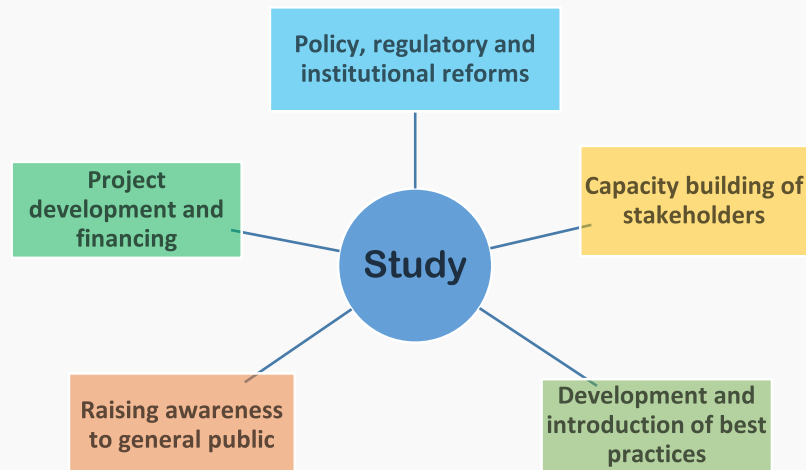
- Financing Energy Efficiency and Renewable Energy Investments for Climate Change Mitigation (FEEI) project was implemented in 2007-2014 with long-term objective to promote an investment climate for EE and RE projects to be identified, developed, financed and implemented.
- The project included the following beneficiary countries: **Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Serbia and the former Yugoslav Republic of Macedonia** (South-Eastern Europe), **Belarus, Republic of Moldova, Ukraine** (Eastern Europe), **Kazakhstan** (Central Asia), and **the Russian Federation**.
- The final report of the FEEI project provided a basis for the analysis of developments occurred in the beneficiary countries in the period from 2010 to present days.

Objectives and Methodology of the Study

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The study looks at the following areas of progress:



The study also looks at:

- Processes in the area of EE and RE which are beneficial for the countries and can be recommended for replication and scaling up;
- Existing gaps related to EE and RE in the countries.

- The survey on progress in the areas of EE and RE since 2010 in the beneficiary countries was conducted over the period of 1 March-30 April 2018.
- Evaluation of responses from survey was complimented by a desk research.



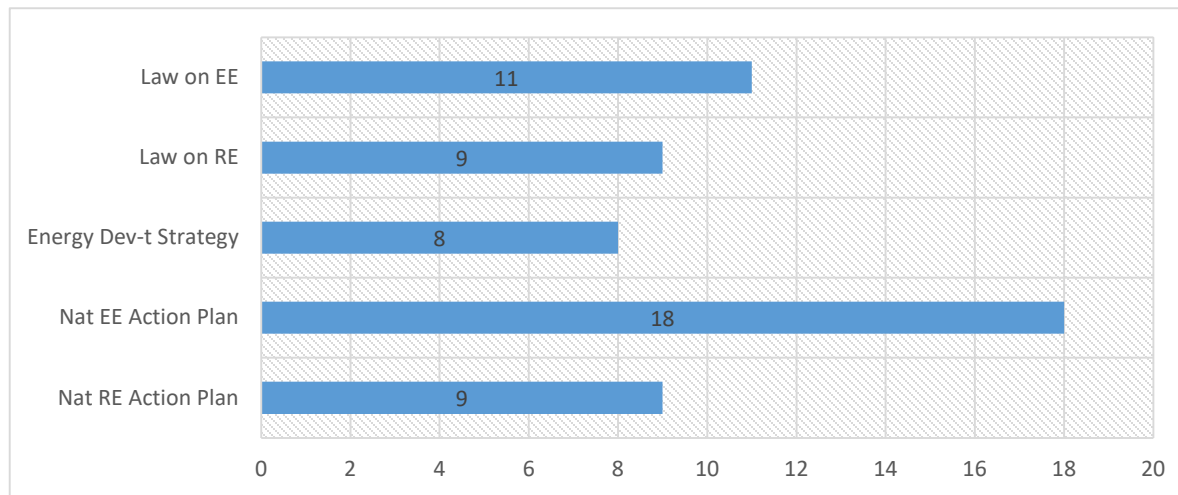
Findings:

Progress in the policy area to promote EE and RE

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The countries adopted the **dedicated framework legislation** on EE and RE since 2010:



The **institutional framework** is formed by institutions at the national and local levels. The energy agencies are established in Albania, Bulgaria, Croatia, Republic of Moldova, Russian Federation, Ukraine, the FYR of Macedonia.

*The development of the **secondary legislation** was boosted since 2010. It's comprised of various types of by-laws produced by different governmental bodies, including Presidential decrees, Governmental resolutions and decrees, resolutions of National Commissions, rulebooks, ordinances, regulations, specific decisions and rules.*

Findings:

Progress in building capacities to promote EE and RE investments

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Capacity building activities for stakeholders in utilities, ESCOs, consulting firms & energy audit companies:

- Trainings for energy producing & consulting companies (FYR of Macedonia);
- Development of model contract for ESCOs (Serbia);
- Explanation of regulations & procedures for ESCOs (Croatia);
- Forum on introduction of eco-friendly best available technologies (Russian Federation);
- Annual Conference “RE Development in the Russian Far East” for authorities, energy companies, energy equipment producers (Russian Federation);
- Round Table on “Financing RE Projects in Russia” for regulators, international manufacturers & suppliers (Russian Federation);
- Introduction of management system & standards for consulting companies (BiH).

Activities within the financial services:

- Dissemination of information on existing inter-l technical assistance for EE & RE projects (Belarus);
- Dissemination of information on possibilities for commercial & non-commercial project financing (BiH);
- Transfer of know-how & expertise on EE & RE among bigger banking groups (Croatia);
- Technical assistance on EE & RE project development & financing to the financial service companies & project developers (Croatia)

The following activities helped the end-users to enhance their capacity:

- Support programmes for financing in industry & residential sector (Belarus);
- Introducing energy management process in the residential system (BiH);
- Programs for energy renovation of single-family houses & multi-apartment buildings (Croatia);
- Organization of inter-l conferences, such as “Environmental Safety in Gas Industry” & “Renewable Energy Development in the Russian Far East” (Russia).

Findings:

Progress in developing and introducing best practices to EE and RE investments

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The best policy practices:

- State policy on energy saving; relevant EE & RE regulations & institutional structures (Belarus);
- EE & RE action plans in both entities (BiH);
- National EE Programme for Multifamily Residential Buildings (Bulgaria);
- Environmental Protection & EE Fund (Croatia);
- National Climate Doctrine with focus on long-term sustainable development in the energy complex (Russian Federation);
- Energy Management System based on Japanese experience; introduction of energy labelling scheme (Serbia);
- Feed-in support scheme for RE (FYR of Macedonia).

The best practices in project development:

- Energy audits, development of pre-project & design estimates (Belarus);
- Alternative energy project in small rural communities (BiH);
- Feed-in tariffs for electricity generation from RES; EE co-financing programmes in building sector (Croatia);
- Projects by energy companies on increasing EE of their major activities (Russian Federation);
- Budgetary Fund for EE (Serbia);
- Feed-in tariff for RE (FYR of Macedonia).

The innovative financing instruments:

- Revolving fund under the project "Biomass Energy for Heating and Hot Water Supply" (Belarus);
- EE & RES Fund & National Trust Eco Fund using direct loans, grant financing, partial credit guarantees to commercial banks, third party financing for EPC (Bulgaria).
- Financing of EE measures under the Budgetary Fund for EE (Serbia).
- Green bonds (Ukraine).
- Blended finance (BiH, Kazakhstan).
- Loan guarantee (Republic of Moldova).

The best approaches to investments into EE & RE:

- By-laws on investments; regulatory regimes to stimulate EE investments (Belarus);
- Operation programmes "Competitiveness" & "Regional Development" (Bulgaria);
- Co-financing options on national & EU levels for EE investments; long-term support mechanism for feed-in tariffs (Croatia);
- Auction system as RE support mechanism; new Energy Strategy for the period up to 2035 (Russian Federation);
- Administrative procedures for issuing licenses for RE projects (FYR of Macedonia).

Findings:

Progress in EE and RE project development and financing

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Initiatives by Governments:

- Adoption & implementation of state programmes (Belarus, Russian Federation);
- Establishment of specialized funds (Belarus, BiH, Croatia, Serbia);
- Introduction of support schemes for RES (FYR of Macedonia).

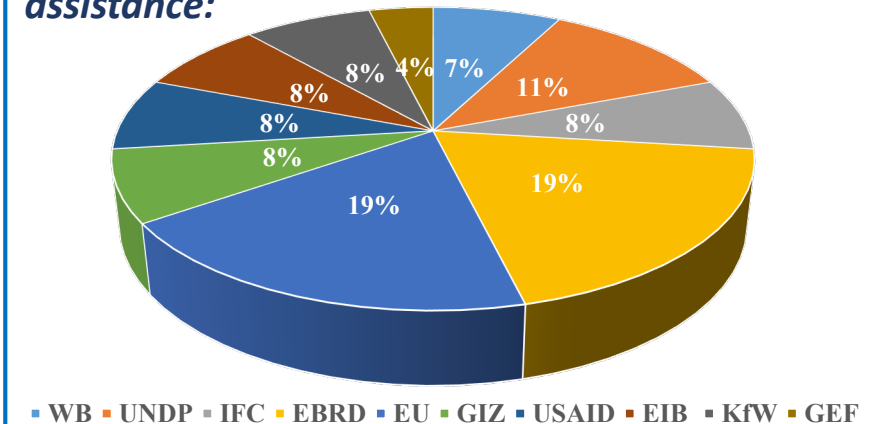
Financing schemes and mechanisms:

- Establishment of funds from national & local budgets (Belarus);
- Introduction of special environmental fee on registration of motor vehicles (BiH);
- Using the EU structural funds for stimulating EE & RE projects (Croatia);
- Introduction of “green tariffs” & provision of tax incentives (Ukraine).

Commercial financing:

- Credit financing (Belarus, BiH);
- Commercial loans through local banks & microcredit foundations (BiH, FYR of Macedonia);
- Combination of project & corporate financing (Croatia).

International institutions providing technical assistance:



Findings:

Processes in the areas of EE and RE
beneficial for the countries

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International projects:

- “Promoting Energy Efficiency Investments for Climate Change Mitigation and Sustainable Development” implemented by ECE, ESCAP, ESCWA, ECA and ECLAC in 2012-2014;
- “Promoting Renewable Energy Investments for Climate Change Mitigation and Sustainable Development” implemented by ESCWA and ECE in 2015-2017;
- “Energy Efficiency Standards in Buildings in the UNECE Region”, under joint implementation by the Sustainable Energy Division and Forests, Housing and Land Management Division of ECE in 2017-2018.

International Events and Meetings:

- The annual International Forum on Energy for Sustainable Development since 2010;
- Meetings of the ECE Group of Experts on Energy Efficiency since 2014;
- Meetings of the ECE Group of Experts on Renewable Energy since 2014;
- Renewable Energy Hard Talks organized Georgia, Ukraine, Azerbaijan, and Kazakhstan in 2017-2018.

Analytical policy studies:

- Analysis of National Case Studies on Policy Reforms to Promote Energy Efficiency Investments (2015);
- Best Policy Practices for Promoting Energy Efficiency (two editions, 2015 and 2017);
- UNECE Renewable Energy Status Report (two editions, 2015 and 2017);
- Experience in the Europe and CIS Region with Clean Energy – UNDP, GEF and UNECE (2016);
- Overcoming Barriers to Investing in Energy Efficiency (2017);
- Global Tracking Framework: UNECE Progress in Sustainable Energy (2017);
- Status and Perspectives for Renewable Energy Development in the UNECE Region (2018).



Findings:

Remaining gaps related to EE and RE

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In the policy area:

- Framework legislation on EE is not adopted in the FYR of Macedonia.
- The legislation on RE doesn't exist in the Russian Federation, Serbia, and the FYR of Macedonia.
- Energy development strategies haven't been adopted in Belarus, Kazakhstan, and Serbia.
- NEEAP hasn't been adopted in Belarus, Kazakhstan, and Russian Federation.
- NREAP hasn't been adopted in the Russian Federation.
- Development of the dedicated secondary legislation needs more attention & further actions from the policy makers' side.
- Dedicated agencies & intermediate management structures haven't been established in Bosnia and Herzegovina, Kazakhstan, and Serbia.

Capacity building & awareness raising: General population, businesses & local governments are sometimes unaware of importance and viability of EE measures & use of RES.

The financial environment for investments in EE projects remains risky due to low energy tariffs & energy subsidies, lack of consumption-based billing or scarcity of long-term funding required by EE loans. The perception of sector-specific risk is high within commercial banks.

To promote investments in RE, some countries introduced feed-in tariffs or premiums. However, official expansion goals weren't introduced in Belarus. Investment incentives, subsidies & benefits don't exist in the Republic of Moldova. Green certificates are not present in any of the reviewed countries. Auctions are introduced only in the Russian Federation. Guaranteed grid access for electricity generated from RE sources exists only in a few countries.

Commercial financing lacks incentives, while the investments in the countries are mainly driven by international donors and development banks in the form of debt financing or grants.



Conclusions



- **Bulgaria and Croatia**, as members of the European Union, were required to transpose the EU Directives' provisions into their national laws to ensure major energy savings for both consumers and industry.
- **Albania, Bosnia and Herzegovina, Republic of Moldova, Serbia, Ukraine and the FYR of Macedonia**, as contracting parties of the Energy Community, made legally binding commitments to adopt the EU energy legislation which boosted the development of policy, legislative and regulatory frameworks in these countries.
- **Belarus, Kazakhstan and the Russian Federation** also achieved significant progress since 2010.
- The countries also made progress in the capacity building process to promote EE & RE investments.
- Since 2010, the countries developed and introduced certain best policy practices, practices in project development, best approaches to investments into EE & RE and innovative financing mechanisms that allowed increasing investments into the areas.
- Despite achieved progress, the study also highlighted existing gaps related to EE & RE in the areas of policy, regulatory & institutional frameworks, financial environment, education and awareness in the countries.



Recommendations



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Policy, legislative and regulatory frameworks

- **NEEAPs** should be adopted in Belarus, Kazakhstan, and the Russian Federation. **NREAP** should be adopted in the Russian Federation.
- Policy makers from the selected countries should focus more on development and subsequent enforcement of the **secondary legislation** on EE and RE.
- Development and implementation of **policies related EE and RE should be coordinated** at the national, regional (provincial), and local levels. Absence of such coordination often leads to ineffectiveness of the adopted policies in the countries.
- **All relevant stakeholders** (policy makers, business community, financial institutions, academia, and civil society) should be brought into the process of formulation of EE and RE policies. This would help in developing consensus and facilitating future implementation of policies.
- The ongoing nature of policy development requires consistent and sustained **introduction of new measures and their constant improvement**. To achieve the national targets, the governments should introduce new regulations, update the existing ones and constantly monitor their implementation.
- In order to be effective, **EE and RE related policies should be predictable and consistent in the long term**. They also have to be aligned with the existing energy market structure and coordinated with other existing policies.
- **The dedicated governmental institutions or agencies should be created** in those countries where they do not exist yet to ensure implementation of energy policy in the country, improvements in EE, and increased uptake of RE.



Recommendations



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Financial environment

- Further work needs to be done to **improve investment climate** for EE and RE projects. Efforts to attract investments in this area should become a special focus for governments.
- The countries should concentrate more on **introducing incentives** (financial and non-financial) and **supporting schemes** for EE and RE investments.
- **Energy subsidies should be eliminated** in the countries (while ensuring that the level of energy poverty does not increase, and that vulnerable population has access to affordable and clean energy) as they discourage EE and RE investments and do not provide investors with the opportunity to receive expected rate of return on their investments.
- Additional efforts should be made in the countries to **reduce perception** of the commercial financial institutions that financing of EE and RE projects carry high risks.

Awareness raising

- Awareness raising should be one of the **priorities for the national authorities** to avoid obstacles to promoting EE and RE.
- **Information exchange** activities and **trainings** should become an integral part of EE and RE development strategies.
- The international development agencies working in the countries can provide significant benefits through **supporting activities** aimed at increasing public awareness of EE measures and use of RES through public campaigns and pilot projects.



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Thank you!

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