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BSBEEP

Black Sea Buildings Energy Efficiency Plan

GA1: Knowledge and information collection and dissemination -
Analysis of external current situation

Activity GA1.1

Executive Summary

**Collection and Comparison of Institutional Framework at EU,
National and Local Level Concerning Energy Efficiency Issues
Focused on Buildings Construction Sector**



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GA1.1: Collection and Comparison of Institutional Framework at EU, National and Local Level Concerning Energy Efficiency Issues Focused on Buildings Construction Sector

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Black Sea Basin Joint Operational Programme 2007-2013
**Black Sea Buildings Energy Efficiency Plan
(BSBEEP)**

Black Sea Buildings Energy Efficiency Plan (BSBEEP) project aims at the establishment of strong regional partnerships and cooperation schemes in Black Sea area through the reinforcement of administrative capacities of local authorities and bodies in a very crucial sector (energy efficiency in buildings) having major environmental and economic impacts locally and globally.

The ultimate goal is to achieve change in the way they treating energy for buildings; facilitating change in the way local societies are acting. Furthermore, the project focuses on the establishment of a knowledge and experience exchange network aiming at the promotion of buildings energy efficiency. The network will engage a wide spectrum of organizations such as local and regional authorities, universities and research centres and NGOs which will help promoting energy efficiency in buildings at local and regional level. Meanwhile it will focus on raising awareness and mobilising private sector and leverage funds to support future initiatives.

Ten partners are participating in the BSBEEP Project from six different countries; Municipality of Kavala (GR), Municipality of Galati (RO), Municipality of Cahul (MD), Municipality of Mykolayiv (UA), Municipality of Samsun (TR), Municipality of Tekirdag (TR), Democritus University of Thrace (GR), University Dunarea de Jos of Galati (RO), American University of Armenia (AM) and Renewable Resources and Energy Efficiency Fund (AM).

More details about BSBEEP Project and the full GA1.1 study (available in English) are available on its website: www.bsbeep.com.

GA1.1:

Collection and Comparison of Institutional Framework at EU, National and Local Level Concerning Energy Efficiency Issues Focused on Buildings Construction Sector

Promotion of energy efficiency in buildings is a relevant and urgent topic to all the countries - members of the project - Armenia, Greece, Moldova, Romania, Turkey and Ukraine, members of the Black Sea Cross-Border Cooperation, area as well as many countries around them. The process of promoting energy efficiency in buildings has several dimensions, and the present report explores those including the following:

1. National legal - regulatory framework
2. National institutional (administrative) framework
3. Local government decisions and policies (city level)
4. Local institutional (administrative) framework to implement

The study further explores the challenges and opportunities that the reviewed countries experience in legislating, institutionalizing and promoting energy efficiency on all those dimensions, to further propose actions that can help overcome the identified challenges.

National Policy Framework

The energy efficiency policies of all countries has been driven by various domestic needs, such as national energy security, import independence, economic competitiveness, reliability of supply, and affordability of energy utilities. At the same time, all countries are also

exposed to a number of external factors as well as their status within various international treaties, in which their status varies. The EU policies aimed at promoting energy efficiency have initiated a massive reform process for all member countries to adapt their legislation to the ambitious EU policy targets, while operating in various policy frameworks. While for some of the countries -- Greece and Romania - transposition of the EU energy efficiency directives is mandatory as Member States, others have also been aggressively promoting national policy reform and transposing the EU energy efficiency regulations as EU Associate Members, as Contracting Parties under the Energy Community Treaty, or purely for transposition of EU legal practices as international best practice or for synchronizing national policies with the external trade partner's market rules, without having any major international obligations.

All countries also have their respective obligations under the UN Framework Convention on Climate change, with Greece and Romania as Annex I and II within the shared EU targets, and Turkey, Moldova Ukraine, and Armenia - as non-Annex B, without quantitative emission reduction obligations.

Despite the various political and diplomatic statuses, all countries of the group attribute great importance to energy efficiency and climate change mitigation. The Governments have made great steps in transposing the Energy Services Directive, the Energy Performance in Buildings Directive, currently working on the Energy Efficiency Directive in Greece and Romania.

The key general elements of the national energy efficiency policy framework in all countries, with some deviations, include the following:

1. Policy: a decree, declaration, international treaty, etc.
2. National strategy: can be on energy, or energy efficiency, or economic development, which address EE among other topics, ideally a separate strategy on EE in buildings;
3. Legislation: primary law regulating building EE either through designated sectoral law, or law on energy efficiency, rational energy use, energy conservation, etc.
4. Regulations: these provide the secondary legislation through codes, norms, technical regulations and standards allowing to enforce the legislation;
5. Programs/plans: through national or local programs and plans the government or communities establishing timelines, targets, various responsible institutions and roles;
6. Funding scheme: to support the policy implementation, a sustainable financing mechanism, subsidy, fiscal incentives, funds are necessary to regularly invest in all the promotional measures as well as direct energy efficiency improvement measures.

The elements 1-4 above remain on the national level, while the further framework (5-6) can exist both on the national and local level. While all elements are equally necessary, countries have been able to cover the policy framework with one of two of the above elements missing. Such a gap usually requires a more comprehensive level of detail in the other policy documents

and raises the demands for secondary legislation. It is the regulatory framework, which provides for building energy codes, certification, and labeling procedures, energy efficiency testing infrastructure (and enforcement) for appliances and equipment, building insulation standards, procedures for conducting energy audits and auditor certifications, mandates for energy management, municipal energy efficiency planning and management, regulations facilitating performance contracting, etc.

Secondary Legislation

In the secondary legislation as well, all reviewed countries have developed, adapted/transposed and adopted a large library of technical regulations that predominantly cover the field of energy efficiency in buildings. In countries which have started this process later, such as Moldova, Armenia and Ukraine, many learning possibilities exist within the Black Sea (BS) area, where more progress and institutional memory exists with the development of adequate secondary legislation. It is also noteworthy, that while the progress on legal reform is impressive, the enforcement of these laws and especially secondary legislation still lacks in some of the countries. This is an area where joint action and exchange of experience can benefit the countries of the BS area, including with EU member states' best practices.

While most countries have made substantial successes in the policy framework and the present report extensively documents the full legal-regulatory framework in all member countries, it is the operationalization through programs and plans, as well as adequate funding mechanisms that have had varying levels of success, leaving major challenges in larger

promotion of energy efficiency in buildings. The main problems and constraints are described as follows:

- Slow in-country enforcement of the newly transposed European legislation
- Lack of administrative capacity
- Lack of sufficient financing with adequate financing terms (interest rates, repayment tenor, grant co-financing, technical assistance, energy audits, etc.) tailored for individual sectors (public, private, SME, etc.) and transition from mortgage financing to project financing;
- Complex legal barriers in other sectoral legislation, such as urban development, multi-apartment building management, owned vs/ rented housing, civil codes, etc.
- Lack of technical skills and expertise for design and implementation of bankable energy efficiency projects
- Lack of public awareness on economic benefits of energy efficiency investments

The current financial crisis is hitting all European countries, some more than others, while the lending markets have also been badly affected. Consumers and financial institutions are less willing to take risks.

Institutional & Administrative Framework

Further efforts are necessary to promote energy efficiency in buildings through appointment/ establishment of the necessary institutions, adequate planning and financing EE improvement programs, while raising the public awareness and enhancing the private sector participation until the market for

building energy efficiency can function self-sufficiently. The appointed institutions include the ministries, the national energy agencies, research institutes, professional associations, chapters of energy engineers and NGOs. The University “Dunarea de Jos” of Galati, for example, has implemented continuous research aimed at the development of energy efficiency pilot projects (an Experimental house built-up at the University for measurement of energy consumption) and financial mechanism for energy efficiency investments.

Some exemplary programs exist throughout the region, which can help countries benefit from each other’s experiences. For example, Turkey’s campaign for all public buildings replaced incandescent bulbs in 1 month, the “Hand-in-Hand ENVER (Energy Efficiency) Movement” which distributed 5 million efficient bulbs, Greece’s programs on “Photovoltaic on roofs” for small scale production of solar energy, “Saving energy” for retrofitting houses, and similar one-off projects throughout the Black Sea area.

Local Government Dimension

The local governments have also come up to the challenge with varying success. In some countries, such as Romania and Moldova, the energy efficiency policy has provided for mandatory actions aimed at municipal energy management and planning that municipalities must implement. The municipalities throughout the region handle such mandatory requirement within the limits of their budget resources. Appointing municipal managers, developing the internal energy accounting system, assessing the municipal buildings’ energy performance through contracted energy audits, as well as

implementing the recommendations of those energy audits. Most importantly, the national policy on energy efficiency in buildings is gradually being reflected in the operational plans of the municipalities, which not only expresses the local government's commitment to the issue, but also allows providing budget allocations for building energy management for upcoming years.

For example, since 2009 the Municipality of Cahul in Moldova and the Municipality of Mykolayiv, Ukraine have included a significant list of public buildings in annual operational plans, and provided for their energy auditing, with the long-term intention to implement the energy audit recommendations. To support the implementation of the national policy provision on municipal energy management, dozens of Moldovan communities have been trained to develop municipal energy plans and many have hired on-staff energy managers. In Greece, the municipalities of Kavala and Galati have incorporated energy efficiency measures for municipal buildings in their annual operational plans, and implemented a number of energy efficiency projects in public buildings. The Samsun Metropolitan Municipality, Turkey, within the scope of the BSBEPP Project, has prepared educational materials for school children on building energy efficiency, as well as designed projects for solar and hydro power production (“samSUN Solar Energy Project” and “Hydro Power Plant (HPP) Construction Project with Innovative Approaches at SelahattinEreren Drinking Water Treatment Facility”) which were approved by Middle Black Sea Regional Development Agency for implementation.

There has been an external factor for the local authorities, in addition to the national policy reform. European Covenant of Mayors has actively recruited signatories within the EU and has later created the COMO-East process, which has actively worked in Ukraine, Moldova and Armenia. Vayq, Armenia is one of the 10 Covenant signatories that has developed its Sustainable Energy Action Plan to identify the communities' potential for energy efficiency measures in the buildings sector, among others, as well as the potential for greenhouse gas emission reduction.

Local Institutional & Administrative Framework

The ability of local authorities to implement programs strongly depends on their available staff, technical capabilities, access to other professional organizations' resources, as well as funding. While the technical and organizational capacities require substantial enhancement, funding is the second outstanding issue. There is lack of systematic, sustainable and long-term programs which can build energy efficiency into the daily functioning of the communities throughout the region. Despite the international, national and local political will to promote energy efficiency, the overarching constraint in all countries is sustainable funding mechanism, which could ensure that programs would yield continuous results and major change both in the public and private building sector.

One of the potentially replicable examples can be the Renewable Resources and Energy Efficiency Fund (R2E2) in Armenia. R2E2 has been able to utilize a soft lending mechanism for 57 public buildings using quasi-ESCO contracts, through which the limited financing revolved allowing to continue

the financing scheme for many more buildings in the coming years, until the public buildings can finance such energy efficiency projects under market terms. Similarly, the Greek Green Fund has performed as a major promoter of renewable energy investments, building on synergies between the environmental and energy policies, and offering administrative, and technical services, while providing grant, subsidy, financing and lending of local authorities.

The numerous barriers that still slow down the sustainability of the implementation of the building energy efficiency policies include lack of financing, low affordability to various social groups, lack of awareness, large public debt, and failure to work out flexible financing arrangements, to name a few. The value of the regional cooperation can be to utilize the successful programs and financing solutions, such as energy performance contracting, targeted soft lending programs, capacity building and training programs for the professionals in the sector, etc.