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## **Third International Forum: Energy for Sustainable Development Capacity building for energy efficiency and access to cleaner energy in Central Asia and neighbouring regions**

Issyk Kul Lake, Kyrgyzstan  
12-14 September 2012

### **SUMMARY**

The “Third International Forum: Energy for Sustainable Development. Capacity building for energy efficiency and access to cleaner energy in Central Asia and neighbouring regions” was held at the Issyk Kul Lake in Kyrgyzstan on 12-14 September 2012. The Forum was organized jointly by the Government of the Kyrgyz Republic, the United Nations Economic Commission for Europe (UNECE), the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), and the United Nations Development Programme (UNDP)/Global Environment Facility (GEF). Over 130 participants from 22 countries participated in the event. This Forum was a follow-up to the International Energy Efficiency Forums held in 2010 in Astana, Kazakhstan and in 2011 in Dushanbe, Tajikistan.

#### ***Day 1***

##### ***Opening Session***

The Forum was opened by Mr. Omurbek Tekebaev, Member of the Parliament of the Kyrgyz Republic who pointed out the importance of development of energy sector in the Central Asian region, its strategic role in its economies and necessity for regional and international cooperation in this sector. Welcoming speeches were also delivered by Mr. Alexander Avanesov, Resident Representative, UNDP Kyrgyzstan, Mr. Scott Foster, Director, Sustainable Energy Division, UNECE and Mr. Hongpeng Liu, Chief, Energy Security and Water Resources Section, ESCAP.

##### ***Session 1: High-Level Round Table***

##### ***Policy reforms and creating favourable environment for sustainable energy***

The Forum included a High-Level Round Table on Policy Reforms and Creating Favourable Environment for Sustainable Energy with participation of high-level officials of the government bodies responsible for energy and sustainable development from Belarus, Kazakhstan,

Kyrgyzstan, Romania, Tajikistan and Uzbekistan. The Round Table was chaired by Mr. Aibek Kaliev, Deputy Minister of Energy and Industry, Kyrgyz Republic. In his speech Mr. Kaliev emphasized the value of this Forum in the context of 2012 International Year of Sustainable Energy for All declared by the UN General Assembly and stressed the importance of each country's contribution towards meeting commitments to sustainable energy.

### ***Session 2: Energy efficiency in buildings and in housing sector***

This plenary session gathered experts from governments, private sector, research institutions, and United Nations agencies to discuss obstacles to achieving energy efficiency in building and housing sector in the region. It was agreed that improving energy performance of buildings is a complex task due to the heterogeneity of the involved actors and issues. Despite the fact that building sector has the single largest potential to reduce greenhouse gas emissions with technologies already available, there is “no easy, big bang solution” to realize this potential. Improved energy performance of buildings requires long-term political commitment. The experts pointed out that, unfortunately, the level of priority for energy-efficient buildings at the national level is comparably low. Consequently, countries of Central Asia and neighbouring regions lack legislative framework or its enforcement and face the results of systematic underinvestment in the housing stock over the last decades. The panellists and session participants agreed that a comprehensive approach with incentives targeted to different stakeholders is required. It was considered fundamental that national governments create enabling conditions for energy efficiency investments through relevant legislative frameworks accompanied by financial instruments. Residents and home owners need full access to information about their energy consumption, saving potential and financial support mechanisms. It was emphasized that all stakeholders should explore how to turn energy efficiency into a business opportunity.

### ***Session 3: Financing energy efficiency and cleaner energy***

The plenary session discussed financing options for energy efficiency projects and cleaner energy technologies. The keynote presenters indicated opportunities and mechanisms to support the implementation of energy efficiency projects as well as ways to remove existing barriers for implementation of such projects in the Central Asian countries. The panellists acknowledged the role of recently adopted legislation on energy efficiency and of improving the existing policy frameworks in the countries of Central Asia and neighboring regions. The examples of improving energy pricing policies in countries of North and Central Asia were particularly valuable. It was stressed that raising public awareness on the necessity of energy efficiency measures is required. The session discussed the role of governments, international financing institutions (IFIs) and private sector in market formation for cleaner energy development. It was emphasized that while IFIs, international organizations and bilateral supporting institutions can provide different types of financing mechanisms, including grants, international loans and guarantee schemes, a direct involvement of private investors is vitally important. From the perspective of private sector representatives the environment for investment into energy efficiency and renewable energy projects is currently very positive despite still existing concerns about long-term risks. The OSCE representative pointed out an existing link between improvements in energy efficiency and enhancing energy security in the countries of the region.

## ***Day 2***

The second day of the Forum consisted of four parallel workshops.

### ***Workshop 1: Legal and Regulatory Frameworks to Promote Energy Efficiency and Cleaner Energy in North and Central Asia***

This session was organized by ESCAP under the project funded by the Russian Federation that has the objective to support development of legal and regulatory frameworks to support energy efficiency and clean energy in North and Central Asia (NCA).

Workshop participants discussed the progress of the project and reviewed currently available content and capabilities of the open online database of legal and regulatory documents on sustainable use of energy and renewable energy sources from the selected countries in North and Central Asia, which is being developed under this project. Experts welcomed this work and acknowledged importance of such information tool to policy makers, researchers, project developers and potential investors. It was also stated that it can be a useful capacity building tool for exchange of experience and information on existing approaches to formulation of new policies and regulations between the countries. Participants emphasized that to fulfil its goals the database has to become an easily accessible and comprehensive tool containing relevant and up-to-date information.

Experts also mentioned that generally in countries in NCA there is lack of access to documents on technical regulations, as well as lack of the latest information on Nationally Appropriate Mitigation Actions (NAMAs). It was recommended that the database is expanded to include these and to cover more countries of the sub-region. Experts also emphasized that, taking the above into account, options should be considered to ensure long-term sustainability of this database.

As part of the project implementation and as an example of analysis made with the use of the database, ESCAP presented interim results of the comparative analysis of legal and regulatory frameworks for energy sector in countries of North and Central Asia (Azerbaijan, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan and Uzbekistan). During the roundtable discussion that followed, experts acknowledged that differences in existing legal and regulatory frameworks in NCA countries exist even at the level of basic concepts and definitions and that there is a strong case and potential for harmonization in this area.

Participants reaffirmed that although most of the project countries already have dedicated legislation on energy efficiency and renewable energy sources and although over the recent years there were positive developments in such legislation, implementation and enforcement of laws and regulations are still lagging behind. This is often due to the absence of relevant accompanying legislation needed to support successful and transparent implementation of these laws and regulations, as well as lack of institutional capacity, including in the form of dedicated government bodies to coordinate and implement government policies in this field.

Participants commended the undertaken analysis and acknowledged the usefulness of such analytical work as well as the utility of the database in supporting it. It was also mentioned that the database and the comparative analysis report can become a valuable contribution to better understanding perspective of the North and Central Asian sub-region on sustainable use of energy in the run-up to the Asian and Pacific Energy Forum that will take place in May 2013 in Vladivostok, Russian Federation.

### ***Workshop 2: Energy Efficiency in Buildings***

The objective of the workshop was to outline elements for a national strategy on energy-efficient buildings. It also provided a platform for an interactive discussion between representatives of national governments, research institutions, international organizations and private sector on how to realize the transformation to an energy-efficient building sector.

A key note presentation by a representative of the Institute for Urban Economics discussed financial schemes for energy-efficient housing retrofitting, which were set up in different Eastern European countries. This presentation was followed by a group of presentations on support projects and initiatives by the international community to enable the creation of legislative and financial frameworks.

The European Union (EU) INOGATE Programme “Energy Saving Initiative in the Building Sector” (ESIB) provides national governments with a package of awareness-raising activities, review of laws, financing investments and technical assistance. The project includes training of bankers in assessing risks of financing energy efficiency projects to reduce the financial sector’s reluctance toward such investments. A concrete and comprehensive “Action Plan for energy-efficient housing in the UNECE region” was introduced by UNECE. It provides national governments with a range of measures aimed at removing barriers to energy efficiency and, thus, enabling them to more effectively address environmental and economic challenges and meet social needs in the residential sector. The role of municipalities was stressed by the Covenant of Mayors East representative. This EU initiative assists cities in developing Strategic Energy Action Plans to achieve greenhouse gas emissions reduction of 20 per cent through energy efficiency and renewable energy actions. Increasing energy efficiency in the building sector is a key component to meet this reduction target.

The second half of the workshop focused on practical examples and programmes from Central Asia and neighbouring regions. A representative of Georgia emphasized the importance of building laws outlining key principles of building and construction. Technical details should be specified in norms and by-laws which can be easier updated than laws to reflect technological developments. UNDP/GEF projects on energy efficiency in public and residential buildings sector from four Central Asian countries presented their activities and exchanged the experience. The projects review national energy efficiency laws, develop schemes for energy certifications of buildings and demonstrate its feasibility through pilot projects in public or residential buildings. In Kyrgyzstan the construction of an energy-efficient school for 850 students is close to completion. In Uzbekistan energy audits of public buildings have been conducted and their energy consumption has been decreased by 50 per cent after improving its thermal insulation and

installing new windows. In Kazakhstan work is going on a sustainable design guidebook to be integrated in university curricula and retrofitting of residential buildings has started. In Turkmenistan, electricity provided to residential customers is very cheap, with the first 35 kWh of electricity per person per month free. Such energy pricing policy makes the national energy company a primary advocate for efficient energy consumption and thus a main UNDP project partner to review the energy performance and to support energy efficiency investments in the residential sector in the country. In Montenegro it has been shown how legalization of informal settlements can be an incentive for energy efficiency investments in residential buildings. In another example, the City of Cetinje in Montenegro connects energy efficiency investments with economic revitalization and urban reconstruction of the cultural heritage by retrofitting historical buildings.

ESCAP has reviewed building codes in nine member States. For instance in Korea, complying with sustainability requirements for buildings is a strong incentive as strict zoning regulations are eased when more sustainability criteria are met by a planned building. The German Institute for Economic Research (DIW Berlin) is developing a concept for co-financing national refurbishment programmes through Nationally Appropriate Mitigation Actions (NAMAs). This mechanism could enable national governments to access funds for energy efficient refurbishments of standardized multi-family and public buildings.

The examples of activities in Central Asia and its neighbouring countries showed that in most countries, the legal basis for improving energy performance of the building stock has just been put in place, is in the process of being developed or is being updated to meet today's technology standards. The legislation needs to prioritize energy efficiency improvements of the existing building stock without neglecting development of building codes for new construction. Certification systems and labelling of buildings according to their energy performance can be an effective information tool for the public. Regularizing housing stock management through the creation of home owners' association is another important step to complete transformation to an energy efficient building sector. Such associations coordinate management of their housing blocks or might decide to hire a private company for professional management. Overall, having such a management structure in place seems fundamental for the coordination of the building's maintenance and management as well as for accessing financial support for energy efficiency investments.

Projects presented during the workshop show that retrofitting existing buildings in an energy efficient manner is taking place in many countries in the region. For the moment, these examples are in the pilot phase only. What is needed is the development of efficient financial support mechanisms to replicate these pilot projects on a large scale. Programmes presented during this workshop will feed into a Casebook on good practices for energy-efficient housing which is currently being prepared by UNECE, UN-Habitat and the City of Vienna.

### ***Workshop 3: Foreign direct investments (FDI) in Advanced Fossil Fuel Technologies***

The workshop examined the challenges of mitigating climate change through promoting investments. An objective of the workshop was to look at this issue from different, sometimes

opposing perspectives. The participants benefited from this approach, which enabled them to get a multi-dimensional picture of a rather complex reality. To achieve this goal, the workshop featured presentations by representatives of Governments, foreign investors, project developers, and international organizations. Six presentations were made at the workshop followed by a lively and spirited discussion.

The concrete objectives of the workshop were to report on the results of the pre-feasibility study for advanced fossil fuel power plants and discuss gaps and opportunities for possible directions for further introduction of advanced clean coal technologies.

The UNECE presented the goals, achievements and deliverables of the project “Mitigating Climate Change through Attracting Foreign Direct Investment in Advanced Fossil Fuel Technologies”. The project is financed from the UN Development Account, and the workshop was organized in the framework of this project. The UNECE described some of the most important outcomes and lessons learned, as well as the plans for the future, including the planned investor conference in November in Almaty.

The workshop reviewed the situation in electricity generation sectors in Kyrgyzstan and Tajikistan. The workshop also addressed the issue of FDI. The opening presentation, prepared in collaboration with UNCTAD, defined FDI, demonstrated how it works and what determines FDI inflow levels. The purpose of the presentation was to emphasize the need for structural and other changes that would make a country a better destination for foreign capital.

The workshop addressed pre-feasibility studies. A consultant presented a pre-feasibility study on underground coal gasification in Kazakhstan. This presentation provoked a heated and interesting discussion about the necessary conditions for underground coal gasification, the quality of coal that could be used, and the economic viability of such projects. The participants then attempted to look at the issue from the investors’ perspective and the role of private investors in the development of the electricity sector in Kyrgyzstan.

#### ***Workshop 4: Case studies on energy efficiency (EE) financing and promotion of advanced energy efficiency technologies***

This workshop was a cooperative effort of several projects of the UNECE Energy Efficiency 21 (EE21) Programme: Financing Energy Efficiency and Renewable Energy Investments for Climate Change Mitigation (FEEI) and Global Energy Efficiency 21 (GEE21) (two GEE21 subprojects: i) Analysis of Advanced Technologies in Energy Efficiency and Renewable Energy in the Framework of Global Energy Efficiency 21 Project and Preparations of Recommendations on its Application with Special Emphasis on Central Asian Region and ii) Promoting Energy Efficiency Investments for Climate Change Mitigation).

UNECE representatives introduced the projects of the EE21 Programme and outlined the work done by the UNECE in facilitating improved investment environment for EE projects in countries of South-Eastern Europe, Eastern Europe, Caucasus and Central Asia and in promoting advanced energy efficiency technologies in Central Asia. Keynote presentation was delivered by

a representative of the UNDP Europe and the CIS Bratislava Regional Centre. The approach of UNDP to promoting energy efficiency was outlined and examples of best practices were given. They were mostly related to energy efficiency in the building and housing sector, which underlined the importance of this topic as a cross-cutting issue at the Forum.

Three Panel Discussions that followed were focused on case studies on energy efficiency financing presented by representatives of Montenegro, Azerbaijan and Tajikistan and on discussing most pressing issues related to EE financing. A representative of the ICF International informed of the work under the Central Asian Energy Efficiency Support Program (CAEESP) funded by the United States Agency for International Development (USAID). The questions for discussion were on the effects of existing legislation and policies in the countries for promotion of EE investments; on the impact of national and local authorities and governmental institutions on EE market development; on the recently introduced incentive mechanisms to promote financing of EE projects and whether they are in fact working; and on the next steps to make large-scale EE investments a reality. The discussions were structured by sub-region: 1) South-Eastern Europe; 2) Eastern Europe and Caucasus; and 3) Central Asia and Turkey.

The discussions revealed both similarities and differences in the approaches to promoting EE financing in countries of various sub-regions; in the existing obstacles; and in the effectiveness of policies, government institutions and incentive mechanisms. For example, in countries of South-Eastern Europe a significant effect has the need for harmonization of legislation with the European Union (EU) and availability of EU funds for EE projects. In Central Asia, on the other hand, only pilot projects are implemented and scaling-up does not happen. There was an agreement that market price for energy is a precondition for large-scale investments in EE. A several-fold increase in the price of natural gas in Ukraine from 2005 to 2010 was the main reason for metallurgical companies to introduce energy saving measures and thus considerably reduce energy costs. Lending by local banks to EE projects is also a must before foreign investors would feel comfortable to finance such projects. Several proposals were made on the possible steps to improve investment environment for EE projects. They included, among others: insurance of EE investments; a combination of government commitment and readiness of the private sector; tax breaks for EE projects and equipment and certain administrative mechanisms to favour such projects; proper enforcement of existing EE legislation and certainty in its application in the long term; restructuring of taxes and phasing out harmful subsidies to reflect their environmental impacts; and introduction of energy audits for buildings.

Panel Discussion 4 focused on the most effective institutional, legal, financial, technical and other mechanisms to improve performance in energy efficiency and renewable energy (RE), with an emphasis on the identification of appropriate EE and RE technologies for the countries of the Central Asian region. The experts from Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan, as well as representatives of ESCAP and a UNDP/GEF Project on small hydropower development in Kyrgyzstan exchanged views and findings related to national policy frameworks and national priorities in developing and using EE and RE technologies. The discussion became an important step in the development of a Regional Study, which will contain a comprehensive analysis and assessment of advanced EE and RE technologies and their potential application in the context of national energy sectors' development.

### *Day 3*

On the third day of the Forum the participants visited the Grigoryevskoe Gorge, a potential site for development of small hydropower in Kyrgyzstan.

### *Forum Resolution*

The participants adopted the **Resolution of the Third International Forum: Energy for Sustainable Development**. In the Resolution, the participants underlined that sustainable use of energy, improved energy efficiency and wider access to cleaner energy are critically important for economic and social development. They also acknowledged the significance of further improving the investment climate in the countries of Central Asia and neighbouring regions, including through the development of financial mechanisms stimulating implementation of the projects in sustainable use of energy, energy efficiency and wider access to cleaner energy, and facilitation of their application, as well as ensuring transparency in the distribution of financial resources. They stressed the critical role that international cooperation can play in promoting energy efficiency and access to cleaner energy. The Resolution, *inter alia*, reflected the pivotal role of governments in promoting sustainable use of energy, improving energy efficiency and providing wider access to cleaner energy in Central Asia and neighbouring regions; underlined the critical role of private sector in implementing such projects, including those within public-private partnerships; and acknowledged the importance of public participation in the development and implementation of energy efficiency projects and necessity of multilateral dialogue and cooperation, including with non-governmental organizations, scientific institutions and other stakeholders.

The participants emphasized the special role that the United Nations system and in particular the UNECE, ESCAP, and UNDP play in promoting sustainable development in Central Asia and neighbouring regions and in this context welcomed the United Nations Secretary-General's initiative "Sustainable Energy for All" and its objectives of ensuring universal access to modern energy, doubling the global rate of improvement in energy efficiency and doubling the share of renewable energy in the global energy mix to be achieved by 2030.

Considering the importance of promoting sustainable development in Central Asia and neighbouring regions and implementation of international programmes and projects in capacity building for sustainable use of energy, energy efficiency, access to cleaner energy and exchange of experience in Central Asia and neighbouring regions, the participants of the Forum called upon UNECE, ESCAP and UNDP to continue holding such Fora on a regular basis and recommended to convene the next Forum in 2013.

### *Forum Website*

The Forum Resolution, presentations made at the Forum and other Forum materials are available at: <http://www.unece.org/index.php?id=29476>.