

CONSOLIDATED SUMMARY OF

2d INTERNATIONAL CONFERENCE

"THE GLOBAL CHALLENGES FOR ENVIRONMENTAL AND RESOURCE ECONOMICS IN CENTRAL AND EASTERN EUROPEAN COUNTRIES: SAFETY, SECURITY, AND SUSTAINABILITY"

(GCERECEEC'2014)

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Faculty of Economics

Taras Shevchenko National University

The meeting brought together 120 high level participants representing education, science sector, government, civil society, business community to engage in dialogue and consultations on how to address and identify practical solutions for common economic and environmental concerns.

Environmental risks and challenges of energy-related activities suggested:

1) Air pollution through the release of substances such as dust, smoke and harmful gases caused i.a. by the combustion of fossil fuels, can pose a serious health hazard. It is a risk factor for multiple health conditions. The biggest effect of air pollution on the environment is the formation of "acid rain", which can affect forests, soils, and water bodies, as well as buildings and infrastructure.

Most of the world's energy still comes from burning fossil fuels such as coal, oil, and natural gas, which are major sources of greenhouse gases and continued dependence on these fuels will jeopardize our climate. Low-carbon replacements for these fuels are urgently needed, while ensuring that actions to reduce emissions will not destabilize the current energy system. The challenge the world must figure out is how to achieve energy security while at the same time protect the Earth's climate.

2) Oil spills can have devastating impact on the ecosystems seriously disrupting ecological services provided by them. As experience shows, they may also have an impact on economic development.

3) State legislatures and natural resource managers have traditionally addressed **water and energy** as two separate issues. However, water and energy are deeply connected and sustainable management of either resource requires consideration of

the other. Detailed understanding of the interdependencies of water and energy systems and of new technologies to reduce water use and loss, advancing water and energy system forecasting, scientific innovation, and the implementation of management systems are necessary. The involvement of state lawmakers and constituents in this process is critical given their responsibility in formulating policy, convening stakeholders, facilitating negotiations, and ratifying agreements.

4) Environmental impact assessment is a tool to address the concerns and contribute to reducing the negative environmental effects of new activities

Summary note of recommendations and conclusions:

Key recommendations:

- 1. A central concern: energy security**
- 2. Energy efficiency, clean energy and sustainability**
- 3. The role of policies**
- 4. The role of innovation and technology**

Key recommendations

1. A central concern: energy security

Securing the supply of energy to consumers while meeting the concerns of energy producers, protecting critical energy infrastructure and energy transit routes take a central place in the debate about the transition to a more sustainable energy network.

Steps required:

- diversification of energy sources, transport routes and supply lines;
- improved political stability;
- increased co-operation on the political level;
- the development of commonly agreed principle of co-operation in the energy field;
- better regional co-operation;
- a stronger focus on confidence-building measures on energy issues;
- better co-ordination among relevant international organizations as well as increased public-private partnerships are key measures that can help address energy security questions;
- regular dialogue, transparency and exchange of information among countries.
- the education and science sector ought to better define the role it can play with regard to political and security aspects in this context, in this field to facilitate the interconnection of best practices.

2. Energy efficiency, clean energy and sustainability

Climate change concerns, population growth, a drastic increase in the use of energy over the last decades, the environmental impact of the use of conventional energy sources - these are only a few of the challenges that need to be faced in transitioning economies towards more sustainable energy solutions.

Steps required:

- promoting examples of successful co-operation and best practices with regard to renewable energy, energy efficiency and savings;

- developing, in partnership with relevant specialized organizations, an inventory of best practices in the above mentioned areas, and facilitate the exchange of such best practices via regional meetings and exchange visits (in that regard, an electronically based knowledge base or an electronic platform could also be envisaged);
- supporting dialogue initiatives between various stakeholders at national level as well as between countries, notably on small hydropower projects, solar and wind energy projects and technologies, and contributing to strengthening local knowledge and capacities in these fields;
- raising awareness on energy poverty in its area, including its gender aspects, and supporting innovative local solutions that overcome or alleviate it;
- organizing workshops and training events on the application of international guidelines and regulations, such as those relevant for environmental impact assessments, including demonstration of modern equipment and technologies;
- raising awareness of the multifaceted nature of rare elements management, also considering possible military, economic and environmental implications;
- raising the issue of misallocation of energy subsidies, which might undermine energy efficiency.

3. The role of policies

State actors have a specific responsibility to introduce new policies that will provide guidelines and incentives for the transition of the energy and transport sectors towards more sustainable solutions.

Steps required:

- new efficiency standards for fuels and vehicles;
- providing technical assistance to agencies to help them obtain the necessary and adequate data and tools with which to assess emissions;
- implementing transport planning regulations, from encouraging states to mandatory requirements for greenhouse gases reduction;
- applying a carbon price;
- promoting mobility management schemes for companies, organizations and schools.
- organizing discussions between participating States on the possibilities for a transfer of experiences with so-called “smart grids”, which are electricity networks able to co-ordinate the needs and capabilities of generators, operators and end users in such a way that it could minimize both costs and environmental impacts;
- facilitating international co-ordination on the standards and norms pertaining to energy efficiency;

- by helping participating States in adapting their national legislation and legal framework to create a positive investment climate for renewable energy solutions;
- by providing a platform for dialogue concerning the exchange of best practices and technical assistance regarding renewable energy sources.

4. The role of innovation and technology

Innovation and technological advances are expected to play a significant role in solving some of the problems that the transition towards more sustainable energy and transport systems will pose.

Steps required:

- to increase efficiency of traditional energy networks,
- to reduce, and possibly replace, the use of traditional, carbon-based energy resources;
- to support technological development and the search for alternative fuels;
- promoting examples of successful co-operation and best practices regarding renewable energies, energy efficiency, and energy savings, including by supporting the introduction of new technologies, diversification, pricing and price stability;
- supporting regional co-operation among the public as well as private sectors;
- promoting energy efficiency improvements, search for alternative energy solutions, development of new technologies, and awareness-raising of the environmental and economic benefits of energy alternatives;
- providing a platform for policy-makers and stakeholders to discuss and demonstrate the linkages between traffic safety and environmental protection.

Some suggested goals of discussions during the round table process:

- Promote co-operation and exchange of best practices on national legislation and policies to prevent environmental risks from energy-related activities;
- Enhance co-operation and exchange of best practices to promote renewable energy, energy efficiency and energy savings, fiscal incentives and technology transfer;
- Strengthen public-private co-operation on the way to a “Green Economy”, contribute to engaging private and international financial institutions and providing incentives for the business sector;
- Support existing multilateral processes for increased co-operation on issues such as: air pollution, climate change, oil spills, water and energy issues, dam safety, natural and man-made disaster prevention and risk reduction, legacies of energy-related activities as well as sustainable energy;
- Promote good governance in the energy sector and sustainable management of energy resources;
- Promote technology transfer initiatives and mechanisms within and between countries, promote co-operation on research and development for new technologies.