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**INTERNATIONAL ECONOMIC RELATIONS  
AND SUSTAINABLE DEVELOPMENT**

**МІЖНАРОДНІ ЕКОНОМІЧНІ ВІДНОСИНИ  
ТА СТАЛИЙ РОЗВИТОК**

**MIEDZYNARODOWE STOSUNKI GOSPODARCZE  
I ZRÓWNOWAŻONY ROZWÓJ**

**МЕЖДУНАРОДНЫЕ ЭКОНОМИЧЕСКИЕ ОТНОШЕНИЯ  
И УСТОЙЧИВОЕ РАЗВИТИЕ**

Матеріали

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As early in the 1960's, The State of Israel developed its National Carrier of water, which carries approximately 25% (560 MCM per annum) of Israel's water from the Sea of Galilee in the north of Israel until the Negev Desert in the south of the country. In addition to the water coming from the Sea of Galilee, Israel uses underground water from two aquifers – the mountain aquifer and the coastal aquifer. Since the annual replenishment of the natural water resources is 1.1.7 billion m<sup>3</sup> and the water demand is over 2 billion m<sup>3</sup> creative solutions had to be found for the deficit. Such solutions are:

1. Purification of waste water (85% are purified).
2. Development of desalination plants along the Mediterranean shores.
3. Desalination of local underground brackish water.
4. Development of local seasonal reservoirs.

In addition, development of unique technologies, such as drip watering, has enabled very efficient usage of the water resource.

In contradiction to Israel, Eastern Africa has abundant amounts of water. The climate is tropical and precipitation is approximately 3000 mm. However, even though natural water is abundant, many countries suffer from economic water scarcity. The problems in East-Africa concentrate on creating a suitable infrastructure and suiting a right strategy of water management, central in some cases and de-centralized in other cases.

East African countries can learn a lot from Israel's experience. In addition, lessons can be learnt from the modern irrigation technologies which Israel has developed.

## **ENVIRONMENTAL MANAGEMENT AND INTERNATIONAL STANDARDS\***

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Environmental management is a modern method of accounting for the benefits of environmental protection in the implementation and planning of the activities of an organization. This is an integral part of modern management systems.

Environmental management has several regulations. To date, it is presented as a management, which, in turn, is limited by the need to protect the environment. Ecological management is presented as a kind of management of wildlife. This increase in the ability of nature to adapt to industrial production, its adaptation to it. There is also an opinion that environmental management is the regulation of culture

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and public relations in the sphere of public opinion. That is, only public opinion and human culture can neutralize the negative aspects of modern technology.

Also, environmental management is often compared with the regional progress of production, that is, turning it into a regional management.

The concept for the development of environmental management is fully aimed at management problems related to the environment, adopted as an object of management. The need for environmental management determines:

1. A sharp decline in ecology;
2. Delineation of regional distribution of industrial production; Increase in production capacity required for new technologies; The increased influence of production not only on regional, but also on the world nature;
3. The delineation of hazardous wastes, their sinks between countries of the world economy (waste concentration);
4. The origin of the content of environmental opinion and worldview in politics;
5. Trends in the development of scientific and technological progress (nuclear technology, biotechnology and others).

In Western Europe, in accordance with the draft international standard ISO 14010, recently such an area of activity as environmental audit has been recognized, which is one of the most effective instruments of economic and environmental control in the process of establishing a market economy.

Environmental audit acts as a tool for managing and enforcing the requirements of environmental legislation of Ukraine. The function of environmental auditing should include the development of strategic plans to improve the environmental performance of material production. Comparison of audit results with the requirements of regulatory documents will allow developing an action plan for adjusting technological processes and adjusting equipment.

Environmental management plans should cover such measures aimed at improving the environmental and economic performance of production:

1. Decrease in resource intensity and energy intensity of technological processes;
2. reducing the toxicity of raw materials used;
3. Increasing the efficiency of existing systems and introducing modern systems for cleaning emissions of harmful substances into the atmosphere and discharges of sewage into water bodies;
4. recycling and processing of industrial waste;
5. organization and conduct of current monitoring of sources and volumes of the release of harmful substances into the environment;
6. introduction of modern "environmentally friendly" technologies and technological equipment.

In 1992, the British Standard for Environmental Management Systems (BS 7750) was introduced in the UK, the first European standard for environmental management, which was soon used in other European countries as a national standard. On its basis, the European Union Guidelines on Environmental Management and Environmental Audit (EMAS) 1836/93 adopted by the EU Council in 1993 have been developed.

Environmental management systems that meet the requirements of EMAS are part of the state regulation of environmental protection processes and contain specific requirements for the technologies used. An indispensable requirement for these systems is the wide informing of the public and all interested parties about the activities of the enterprise, its products, materials and resources used, as well as the publication of environmental goals and objectives of the enterprise and the annual publication of the results of activities. The decision to develop international standards for environmentally sound management was the result of the Uruguay Round of negotiations under the General Agreement on Tariffs and Trade (GATT) and the United Nations Conference on Environment and Development in Rio de Janeiro in 1992. The International Organization for Standardization Since 1946, with the establishment in 1993 of the Technical Committee "Environmental Management (ISO / TC 207)", has begun to develop international standards for environmental management - ISO 14000 standards, which were one of the most significant international environmental initiatives. The basis for their creation was the British standard BS 7750, as well as the existing international standards for quality control systems - ISO standards series 9000. The adopted and developed ISO 14000 standards cover such areas as environmental management systems, environmental auditing, environmental marking, assessment Characteristics of environmental friendliness, as well as terms and definitions.

The first standards of the 14000 series were taken in 1996. At present, the ISO 14000 series of standards and international standards projects recites more than 20.

The ISO 14000 series of standards is oriented, unlike other environmental standards, not to quantitative parameters and specific requirements to the environmental entity's impact on the environment (concentration of substances, emissions and discharges, etc.) and not on technology (for example, in Western countries, the requirement to use "best available techniques» (best available technology). The main subject of the ISO 14000 is an environmental management system - environmental management system.

Following the standards of the 14000 series implies the reduction of adverse environmental impact at the organizational, national and international levels, as it will:

- improve the environmental impact indicators of certain economic entities;
- create significant additions to the national regulatory framework, as well as define a national environmental policy;

- improve the conditions for international trade and create conditions for competitive national products.

ISO 14000 standards do not replace the requirements established by legal and regulatory acts, but provide the creation of a management system for enterprises (economic entities). Assess how they affect the environment and how the requirements of national legislation are being met. At present, environmentally oriented management systems are recognized as the main methods that ensure sustainable economic development.

Worldwide, environmental management is perceived in close connection with ensuring the quality of industrial safety, favorable working conditions.

1. ISO 14000. - <http://www.referenceforbusiness.com/encyclopedia/Int-Jun/ISO-14000.html>

2. Paul Cough Trade-Environment Tensions. Options exist for reconciling trade and environment. – <http://www.ciesin.org/docs/008-065/008-065.html>

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## **INTERNATIONAL TRADABLE GREEN CERTIFICATE SYSTEM: PROSPECTS FOR UKRAINE \***

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It is common knowledge that at the present stage of renewable energy (RE) technologies development, a precondition for the deployment of green power plants is the implementation of various economic support schemes.

Although the economic mechanisms aimed at stimulating green electricity generation have been implemented in Ukraine since 2009, share of renewable energy sources (RES) in the energy balance remains insignificant (1,2% as of 2015) [1].

One of the possible ways to improve the state management concept for RE development is the extrapolation of the foreign experience regarding the application of economic tools based on increasing demand for electricity from RES, particularly, the introduction of mandatory quotas for its consumption with tradable green certificates [2]. A significant advantage of the above support scheme is possibility

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