

ЕМіністерство освіти і науки України Сумський державний університет Навчально-науковий інститут фінансів, економіки та менеджменту імені Олега Балацького Кафедра економічної теорії

INTERNATIONAL ECONOMIC RELATIONS AND SUSTAINABLE DEVELOPMENT

МІЖНАРОДНІ ЕКОНОМІЧНІ ВІДНОСИНИ ТА СТАЛИЙ РОЗВИТОК

MIĘDZYNARODOWE STOSUNKI GOSPODARCZE I ZRÓWNOWAŻONY ROZWÓJ

МЕЖДУНАРОДНЫЕ ЭКОНОМИЧЕСКИЕ ОТНОШЕНИЯ И УСТОЙЧИВОЕ РАЗВИТИЕ

Матеріали Міжнародної науково-практичної конференції (Суми, Україна, 5–6 травня 2017 року)



Суми Сумський державний університет 2017

РОЗДІЛ 7 ВПЛИВ МІЖНАРОДНИХ ЕКОНОМІЧНИХ ВІДНОСИН НА СТАЛИЙ РОЗВИТОК

РАЗДЕЛ 7 ВЛИЯНИЕ МЕЖДУНАРОДНЫХ ЭКОНОМИЧЕСКИХ ОТНОШЕНИЙ НА УСТОЙЧИВОЕ РАЗВИТИЕ

SECTION 7 INTERNATIONAL ECONOMIC RELATIONS IMPACT ON THE SUSTAINABLE DEVELOPMENT

LESSONS TO BE LEARNT FROM ISRAEL'S INTEGRATED WATER RESOURCES MANAGEMENT*

Chayen S., PhD,
Antonenkno V., Horban A., students gr. ME-61an
Sumy State University (Ukraine)

This paper presents lessons in water resources management which African countries abundant with water can learn from Israel, a semi arid country.

The state of Israel is situated in a semi-arid zone. Approximately 60% of the land is desert land and water sources are scarce. Average annual precipitation is approximately 500 mm of rain.

Therefore, the water authority of Israel had to develop a strategy which uses Integrated Water resources Management. This strategy is comprised of four main points:

- •Reuse of treated effluents,
- •Brackish water for agriculture and industry,
- •Seawater and brackish water desalination,
- •Development of the national and regional infrastructure.

*The paper was written according to budget money from the Ministry of Education and Science of Ukraine, given to develop scientific-research topic № 53.15.01-01.15/17.3Φ "Methodology of forming mechanism of national economics innovative development based on alternative energy".

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 m3 and the water demand is over 2 billion m3 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*

Korol A.O., student gr. ME-51an *Sumy State University (Ukraine)*

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

^{*}The paper was written according to budget money from the Ministry of Education and Science of Ukraine, given to develop scientific-research topic № 53.15.01-01.15/17.3Φ "Methodology of forming mechanism of national economics innovative development based on alternative energy".