

2 Закон Республики Казахстан «О реабилитации и банкротстве» от 7 марта 2014 г. №176V

3 А.Жукеев. Урегулирование неплатежеспособности. 23 июня 2016 [Интернет источник]. – URL: [//https://www.zakon.kz/4801452-uregulirovanie-neplatezhesposobnosti.html](https://www.zakon.kz/4801452-uregulirovanie-neplatezhesposobnosti.html)

4 Дюсембаев К.Ш. Анализ финансового положения предприятия – Алматы: Экономика, 1995. – 221 с.

5 Журнал финансы и кредит. – 2008. – № 46(334) – С. 46

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### CONNECTION BETWEEN REFLEXIVE MODERNITY AND THE ENVIRONMENTAL KUZNETS CURVE

**Abstract.** The study discusses the links between reflexive modernity and the Environmental Kuznets Curve (EKC) hypothesis. Reflexive modernity refers to the new society that reacts to changes reflexively and concerns about environmental crisis. Ecological modernization that can be accepted as a part of reflexive modernity has similar roots with the EKC theory that refers to the relationship between economic growth and environmental quality. The paper finds that the trajectory of water use in the Global North follows the trajectory of the EKC in developed countries and demonstrates the inverted U shape. This analogy can be applied to investigate the reflexive modernity in various economies.

**Key words:** ecological modernization, analogy, post-industrial economies.

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**Аңдатпа.** Мақала рефлексивті жаңғырту және экологиялық Кузнец қисығы (ЕКС) арасындағы байланыстарды қарастырад. Рефлексивті жаңғыртуда жаңа қоғам рефлексив ретінде өзгерістерге жауап беріп экологиялық дағдарысты аландайды. Рефлексивті жаңғыртудың бір бөлігі ретінде қабылдануы мүмкін экологиялық жаңғырту экономикалық өсу мен қоршаған орта сапасының арасындағы өзара қарым-қатынасты қамтамасыз етеді. Зерттеу барысында дамыған елдерде су пайдалану траекториясы экологиялық Кузнец қисығы траекториясымен сәйкес келеді және төңкерілген U пішінін көрсетеді. Бұл ұқсастық түрлі экономикадағы рефлексивті жаңғыртуды зерттеу үшін қолданылуы мүмкін.

**Кілт сөздер:** экологиялық жаңғырту, ұқсастық, постиндустриалдық экономика.

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**Аннотация.** В данной статье рассматривается связь между рефлексивной модернизацией и гипотезой об экологической кривой Кузнеця. Рефлексивная модернизация подразумевает новое общество, которое рефлексивно реагирует на изменения и заботится об окружающей среде. Экологическая модернизация, которая может быть рассмотрена как часть рефлексивной модернизации, имеет схожие стороны с гипотезой, которая раскрывает взаимосвязь между экономическим ростом и качеством окружающей среды. В ходе исследования установлено, что траектория использования воды в развитых северных странах соответствует траектории экологической кривой Кузнеця в развитых странах и демонстрирует перевернутую форму U. Эта аналогия может быть применена для исследования рефлексивной модернизации в различных экономиках.

**Ключевые слова:** экологическая модернизация, аналогия, постиндустриальная экономика.

Traditionally, environmental degradation was the consequence of economic development. Those who have been targeted the performance of the economy have seen environmental protection to be an obstacle for growth. On the contrary, those who have been concentrated on improving of the quality of environment have perceived economic development as the origin of the environmental problem. Recently, the term of ecological modernization has proposed that economic development and environmental protection can be combined and exist together. Economic and environmental policies can be integrated in one framework of the advanced industrial economy or so-called clean service economies.

In the late 1970's, American society begun to be concerned about environmental problems that started to be a serious constraint to social progress. In 1976 the American Sociological Association established a new section on Environmental Sociology which tried to explain societal changes not from anthropocentrism perspective, but from non-anthropocentric paradigm. The main idea of the new flow was comprehension that human societies were a part of ecosystems and the interactions between environment and people were natural process. Catton and Dunlap announced the appearance of the New Environmental Paradigm (NEP) which shifted the Human Exceptionalism Paradigm, which ignored the dependence of society on the environment. The NEP consisted of several assumptions that emphasized human as a part of ecosystem and finiteness of natural resources. The NEP introduced a new dimension for researchers from different scientific fields.

Thus, until 1970's water management mostly ignored the environmental costs of water related projects [1]. In the industrialized economies, most of such projects have been implemented owing to irretrievable ecological losses. The social change started in 1970's resulted in shift of societies from industrial to reflexive modernity. While the industrial modernity refers to the large-scale constructions, full employment and exploitation of natural resources, reflexive modernity switches its focus to environmental crisis, and «a new kind of consumerism». It is supposed that new society should reacts to changes reflexively and adapt to the new emerging society.

Allan represented changes in global water management in a schematic form where the reflexive modernity is the water management paradigm towards which the Northern countries has already shifted since the 1970s. Upon the whole, he distinguished five particular water management paradigms (Fig. 1). The first paradigm of water management pertains to «pre-modern» community that is defined as a period before industrialization and technology. The second paradigm of industrial modernity can be characterized by modern engineering, appearance of State-centric management and the hydraulic mission. It was an era of the continuous providing water supply to meet demand by building more infrastructures like dams, canals and pumping stations. The upward trend of water use represents the hydraulic mission of water or the process of taking more and more water out of the environment to produce food in the agricultural sector.

In 1970's the era of reflexive modernity that presents the 'modernization of modernity' and modifying social institutions due to social change came with a new wave of environmentalism [2].

The era of reflexive modernity refers to shift from the hydraulic mission to the 'environmental awareness' and returning the water back into the environment. In the South the trend of water use remains the same and more water is utilized in order to increase food production, energy and meet food demand. Different trajectories in the upper part of the Figure 1 represent freshwater use in the arid and semi-arid North and the semi-arid South since 1980. Changes in water management have been continued in the period of the fourth paradigm that demonstrates the significance and the new role of water as a limited economic resource.

Mol and Spaargen suggest to connect ecological modernization with Beck's writings on reflexive modernity. They claim that ecological modernization, which is a conceptual framework for understanding economy-environment nexus, can be considered as an instance of reflexive modernity in the context of economic dimension.

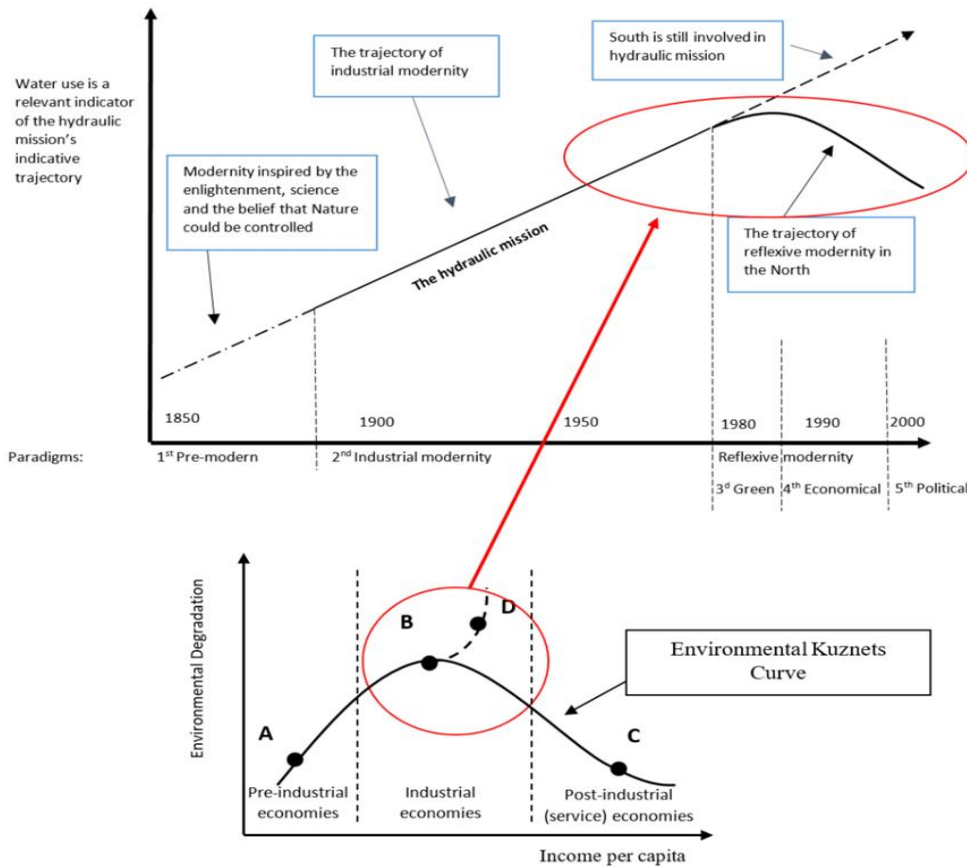


Fig.1. Analogy between the EKC and the trajectory of water management paradigms

In that regard, despite of associating economic development as a source of environmental depletion, ecological modernization provides the sustainable development that encompasses the employment of environmental policy. In other words, economic and environmental targets can be combined in one framework of an advanced economy. Ecological modernization proposes that nations may deteriorate natural resources in the beginning of modernization and concern about environment in the further stages of modernization, transforming political, economic and social institutions in the context of sustainability.

Ecological modernization can be achieved through changes in the technological and sectoral compositions [3].

However, these changes do not always result in improvement in environmental performance. For instance, in such countries like Denmark, France, Germany increased economic growth has been followed by decrease in environmental deterioration in a high extent. Austria, Finland, Norway and Japan demonstrated relative reduction in environmental degradation and,

finally, in former Soviet economies of Central and Eastern Europe economic growth is associated with enhancing environmental damage.

In the study of York, Rosa, and Dietz, ecological modernization theory, reflexive modernity and the Environmental Kuznets Curve were studied together as theories that suggest a possibility of transition towards sustainable development. They distinguished three conditions under which economies might achieve that goal: (1) institutional arrangements and culture must promote altruism; (2) environmental information must be available; (3) the state must not be captured by capital, the military, religious groups or other special interests who will have little interest in sustainability [4].

The Environmental Kuznets Curve hypothesis provides general explanation to the relationship between different indicators of environmental quality and economic growth. For some indicators, the relationship between income per capita and environmental degradation has an inverted U-shape (Fig. 1). The fundamental study of Kuznets, that tests the hypothesis on the relationship between income and inequality, was applied for environmental damage and demonstrated the EKC has similar inverted U-shape. The level of environmental damage is low in the first stages of economic development, when countries have pre-industrial economies. With further development of economic structure from agricultural to industrial the ecosystem continues to deteriorate. Finally, countries with service-based economy begin to demand high environmental quality that led to reduction in damage of natural resources. The EKC reflects the trajectory of economic development «from clean agrarian economies to polluting industrial economies to clean service economies». Nevertheless, claims that developing countries may address environmental impact of economic growth by using developed country standards in a short period and even demonstrate better results than advanced economies.

Used by many authors to examine relationship between the CO<sub>2</sub> emissions and income per capita, the EKC hypothesis suggests that there is an inverted U-shape relation. However, this framework has been enhanced to various fields like trade and pollution, income and health, deforestation and income and so on. The EKC hypothesis has been tested for biodiversity loss as well. Dietz and Adger investigated the relationship between economic growth, biodiversity loss and biodiversity conservation and revealed that, initially, economic growth leads to biodiversity loss through habitat change, and further growing income is leading to a rise in demand for biodiversity conservation. Nevertheless, the validity of EKC hypothesis for biodiversity loss is an open issue [5].

Figure 1 demonstrates the resemblance between the EKC and the trajectory of reflexive modernity in the Global North. It is clearly seen, that the trajectory of reflexive modernity in the North, that shows the reduction of water use, and inverted U-shape of the EKC, where economy moves through A-B-C points, have the same form. Respectively, the upward trajectory of

South, that demonstrates the continuance of hydraulic mission, and the upward trend in the EKC figure, where economy moves through points A-B-D points, are similar and indicate growth of environmental degradation.

In this study, an endeavour was made to stretch the analogy between the industrial-reflexive modernity shift and the EKC hypothesis. This analogy can be utilized to investigate the presence of reflexive modernity in various economies and regions. However, the EKC should be considered as only one of the dimensions of reflexive modernity that incorporates economic policy. To study reflexive modernity more extensive research should be conducted.

### **References:**

- 1 Gleick, P.H. The Changing Water Paradigm – A Look at Twenty-first Century Water Resources Development // *Water International*, 2000. – №25(1). – pp. 127-138
- 2 Giddens, A. *Social Theory and Modern Sociology*. – Stanford: SUP, 1987. – 312 p.
- 3 Jänicke, M., Mönch, H., Ranneberg, T., Simonis, U.E. Structural change and environmental impact // *Intereconomics*.– 1989.– №24 (1).– P. 24-35
- 4 York, R., Rosa, E.A., Dietz, T. Footprints on the Earth: The Environmental Consequences of Modernity // *American Sociological Review*. – 2003. – №68 (2). – P. 279–300
- 5 Dietz, S., Adger, W.N. Economic growth, biodiversity loss and conservation effort // *Journal of Environmental Management*. – 2003. – № 68. – pp. 23–35.

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### **RENEWAL AND NEW PERSPECTIVES OF SILK ROUTES ECONOMIC ZONE**

**Abstract.** The building of the Silk Road economic belt is an exciting prospect that may bring immense economic benefits to Eurasian countries. However, the build a new and sustainable Silk Road economic belt, advancing scientific research, reinforcing international collaboration. People today seem to have not fully appreciated the role of the Silk Roads in terms of the benefits it has brought to the modern economic conditions. Moreover, they have realized the benefits that it could bring if it was to be revived today. In 2013,