

The Ecologization Megatrend of World Economy and the response to it by Republic of Moldova in the context of European integration

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Abstract

The article reflects the outcomes of the author's first phase of research on Ecologization which is conceptualized as a socio-economic megatrend as well as the megatrend of world economy. The author argues for the fact that Ecologization is not homogeneous megatrend but embraces many trends, some of them are even opposite by their character. In doing so, the author distinguishes several dimensions and various forms of the manifestation of the megatrend. The article also includes some results on the author's study on the response of the Republic of Moldova to Ecologization in the context of the state's European integration.

Keywords: megatrend, ecologization, world economy, Republic of Moldova.

Introduction

The megatrends that influence the development of socio-economic and business activity have been attracting increasing attention of researchers beginning with the 80s of the XX century. John Naisbitt together with his son Jim Naisbitt did a substantial research and launched the term “megatrend” as the most general and powerful direction which had been producing impact upon the socio-economic development of the USA. They enumerated 10 of such directions.¹⁸ At the start of the XXI century it has become evident that the directions they had revealed for the USA are actual for the whole world. More and more research and reflections have been spring up worldwide.¹⁹ At the same time, less attention is paid to conceptualization of the megatrends of the world economy, and even the least to substantiation of Ecologization as such a megatrend. The processes which compose the latter have been reflected in various studies as the elements of some other

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¹⁸ Naisbitt, J. (1982), *Megatrends: Ten New Directions Transforming our Lives*, Warner Books.

¹⁹ See, for example, from the most recent., Schreiber, U.. *Megatrends 2015; Making sense of a World Motion*. URL: www.ey.com/.../ey_megatrends_report_2015 or Singh, S.. *Top 20 Global Megatrends and their Impact on Business Cultures and Society*. URL: www.frost.com/prod/servlet/cpo/2130/6007.

megatrends (for instance, green technologies as Technological advance megatrend, greening economy and business as the components of sustainable development megatrend).

The purpose of the article is, first, to conceptualize the Ecologization as a distinguished socio-economic megatrend which has been influencing the development of World economic system so far as to become its intrinsic megatrend; secondly, to trace, in the limit of the article, the responding reactions of the Republic of Moldova to the megatrend in the context of the country's strategic vector to European Union integration.

The character of the article is methodological.

Megatrend conceptualization

By a socio-economic megatrend it is understood here the most general direction that produces its impact on all socio-economic systems at all levels, shaping so far a global socio-economic space, and which is acting persistently for centuries, forming a global socio-economic time.²⁰

Having leaned upon this conceptualization, one may further define the megatrend of World economy as a powerful direction which influences not few but all national economies, contributing to re-engineering of economic systems at various levels (micro level – companies, mezzo level – branches etc.), and which acts for decades or even centuries. It calls forth new technologies of production, new investment policies, new kinds of goods and services, new marketing strategies, and new directions for business activity.

Ecologization as a megatrend

In its broad sense, Ecologization as a socio-economic megatrend can be traced as far back as thousand years ago, and can be observed in various cultures. It has been linking with the search for a harmony in society, associated with unity of man and Nature (Taoism, Yoga, Zen etc.). In its narrow sense, Ecologization can be associated with the profound Ecologic Crisis which got its start in the middle of the XX century, and today is also linked with the Global Climate Change issues. Having analyzed the main causes of the Crisis and its actual increase, one may refer to the process of industrialization (another socio-economic megatrend) as well as the conception of rapid economic growth. The latter is based on the intention to maximization of profit with simultaneous minimization of investment payoff time. As an outcome, it has been practicing industrial technologies which allow economies of scale, fast revenues and, at the same time, squeezing of all resources used. From economic point of view and for a short-run, such an approach to socio-economic activity has distinguished by high economic efficiency. It is

²⁰ See for more details: Şişcan, Z. (2009). Fundamentarea de noi abordări ale managementului strategic și cros-cultural în contextul megatendințelor socio-economice, Chișinău.

industrialization due to which the economically advanced countries of world economy have reached their recognized level, and Newly industrialized countries follow them, using the same conception of rapid economic growth. The social, human and natural resources costs, however, are too high, so as for a long-run, the socio-economic activity based on rapid economic growth conception is not effective and even efficient, because both society and business are charged in direct and indirect manner for the usage of Nature unfriendly technologies, what evidentially increases costs.

It is not incidentally that, beginning with the 80s of the XX century, a new conception has been getting its recognition – the sustainable human and socio-economic development.²¹ The accent here is put on the optimization of the profit as well as on the resource usage in such a way to let the next generations benefiting from them too.

Ecologization is based on this conception but cannot be reduced to it, as it has its own dimensions of manifestation.

First of all, as it has been mentioned above, it has been caused by industrialization based on ecologophobic technologies which entailed increasing pollution of air, soil, water, including World Ocean, as well as the exhaustion of natural resources, flora, fauna etc. In the context of the response to Ecologic Crisis, the ecologization “was born” in world economy as the trend to “greening” economy and business. It has been manifesting by:

- increasing attention to ecologophilic technologies;
- development of organic agriculture and increasing attention to food security issues;
- economic response to the challenge of Global Climate Change;
- search for renewable energy solutions;
- shift in automobile industry from petrol-based engines to the hybrid ones, and further to electro mobiles;
- development of social corporate responsibility of companies, embodied in numerous eco-projects as well as the compensation and recycling policies;
- revision of some quality standards, those being treated more as ecologic ones;
- appearance of number of not-for-profit organizations which run their successful business due to ecologization megatrend: elaboration and implementation of projects related to environmental protection, consumer rights protection, assistance provided to governments in revision of legislation for developing the respective sanction mechanisms regarding such activity of economic agents that causes environmental harm, and further assistance in implementation of those mechanisms;
- constitution of ecologic responsibility concept as a frame for developing an

²¹ See for more details: Banuri T., Hyden G., Iuma C., Rivera M. (1994) *Defining and Operationalizing Sustainable Human Development: A Guide for the Practitioner*. – New York: UNDP.

attractive image, and even competitive advantage of companies or national economies.

The latter is closely connected with economic sense of globalization in world economy: since the end of the XX century, the economically advanced countries have been putting accent on outsourcing which presupposes replacement of production from those countries to the countries in transition and developing countries for being closer to low-cost raw materials and human resources as well as for benefitting from fiscal and other facilities which are usually practiced by the transiting and developing countries to attract FDI. Ecologization in the developed countries manifests itself by the means of replacement of ecologic unfriendly production, due to the fact that the ecologic standards in transiting and developing countries are usually low, if any. Owing to this fact, however, the Ecologic Crisis deepens there, so as Ecologization gets its place on agenda of their socio-economic development too, but in delay. Besides, majority of developing and transiting countries has gradually been losing its natural ecologic competitive advantage at global market, because of increasing pollution, if special governmental measures are not undertaken for otherwise.

Thus, Ecologization in its first dimension has been manifesting as an immediate reaction to deep Ecologic Crisis provoked by industrialization and the conception of rapid economic growth.

The second dimension of Ecologization is closely linked with industrialization too. The matter is that industrialization produces not only negative consequence for human development, in terms of ecologic crisis, but positive as well, as far as the socio-economic development is concerned. Industrialization megatrend has been addressing the solutions of number of global problems of world economy of economic and non-economic origin: hunger, poverty, epidemic and pandemic diseases, satisfaction of human primary needs (physiological ones, in security etc.), socio-economic modernization for higher productivity... In the very context, among other kinds of industry, there has been developed without precedent chemical industry. Synthetic goods of all kinds have become the solutions for many problems mentioned above, and not only. In the framework of this dimension, Ecologization has paradoxically been manifesting itself through the “global call” for not using natural goods.

Starting with the 60-70s of the XX century, the “call” was associated, on the one hand, with marketing the synthetic products which, at the beginning, were of high cost, taking part of the category of expensive or even luxury goods. On the other hand, “the call” was and still is linked with the ecologic crisis, mentioned above. “Green” movements worldwide have been addressing to consumers to prefer synthetic goods, instead of natural ones, keeping so far “hundreds of trees” or “dozens of animals”. The aged people remember some scandal cases of the aggressive manifestation of “the call” registered in 60s-70s of the XX century, when some “green-movers” splashed gasoline out ladies and gentlemen in natural fur cloths and tried to put them in fire. The endeavors were undertaken to force rich

people to buy synthetic cloths by the use of fear, in case the means of “good-will-arguments” had no effect.

The “call” is actual today, but in much softer manner. One of the eloquent examples is when electronic devices are being positioned as contributors to protecting nature (something like “Save information on flash rather than on paper!” and “Read electronic books for keeping trees alive!”).

In its third dimension, which got to be flourishing the last decade and is in growth, Ecologization manifest itself through the opposite appeal to consume only natural goods. These kinds of products are being positioned in the world economy as “100% natural”, “bio goods” and “organic goods”. In the context of world economy, being developed as global market economy, this dimension of Ecologization allows companies, and even national economies, constituting their new competitive advantages by promoting the “organic” or “economy” class of goods. The first is oriented to high income segments due to the fact that completely natural goods today involve higher costs of production, transformation, packaging etc. For receiving real natural goods the traditional technologies in agriculture and manufacturing are being addressed to, some of which call forth the necessity to create the special conditions for production, deposit etc. that can also be associated with extra costs.

The “economy” class of goods is being oriented to low income segments as it contains number of synthetic ingredients/materials, the production cost of which is progressively decreasing.

As the world economy statistics shows, the distribution of organic agriculture by regions is as follows: Oceania 17.3 million ha, Europe 11.5 mln ha, Latin America 6.6 mln ha, Asia 3.4 mln ha, Africa 1.2. mln ha.²²

The USDA Organic 101 blog (2012) emphasizes that for being qualified as organic or certified with organic label, the goods should be free from genetic modification; grown without conventional fertilizers and additives or ionizing radiation.²³

The global organic food market is in growth: from 57.5 billion USD in 2010 to 104.7 billion in 2015. Europe has the largest market share with revenue of 28 billion USD. In North America growth constituted 12% from 2010 to 2015, and “the Rest of the World (ROW) which includes Latin America, Australasia, and others is expected to grow at the highest CAGR of 16,5%... The demand for organic goods is concentrated in countries where consumers have high purchasing power like Japan and South Korea”.²⁴

Besides new-market-interest aspect of Ecologization, the reason of its

²² Research Institute of Organic Ariculture, FiBL (2015), The World of Organic Agriculture. Statistics and Emerging Trends 2015. URL: www.organic-world.net/yearbook-2015.html

²³ Schroeder, J. (2015). Organic Marketing Report 2015. URL: www.organicnetwork.biz/

²⁴ Transparency Market Research (2015), Organic Food Market – Global Industry Size, Share, Trends, Analysis and Forecasts 2012-2018.

URL: www.transparencymarketresearch.com/organic-food-market.html

increasing manifestation in the third dimension is the fact that synthetic ingredients and materials often produce undesirable effects upon the health of humans. Food and pharmaceutical industries, having reached great success in combating hunger and diseases, got the tendency to abuse with synthetic ingredients of coloring, flavoring, conserving etc. action, some of which producing allergy and even new diseases (adverse reactions). More than that, some companies being guided by rapid economic growth conception, maximization of profit intention and feeling pressed by global market competition are in a hurry to launch new synthetic food or pharmaceutical products with little testing time, if any. This also can be associated with corruption as one of the problems of contemporary world economy.

The dilemma for socially responsible food and pharmaceutical companies which follow the standards of Ecologization in second dimension (not making harm to nature) is in fact that they cannot test their products on animals any more. Smaller companies just pay for quality certificates based on laboratory test results, and then family doctors worldwide collect the feedback information. Bigger companies or those who take more care of reputation and endure, therefore, higher costs, organize tests for paid volunteers, and in hospitals for no-choice patients.

For the most profit-maximization oriented companies the following scenario is being practiced too. The companies of food and pharmaceutic industries create a consortium in which a food company makes the production costs as low as possible by the use of significant number of cheap synthetic and, sometimes, even dangerous ingredients. In doing so, it creates immediate job for its pharmaceutical partner. The latter, in the mainstream of Ecologization megatrend in the third dimension, start offering consumers the new products which are based on natural ingredients that are supposed to absorb the toxins, clean and revitalize the consumers, but the products are high in price, because of natural ingredients. Such based on non-sustainable-development-concept business practices entail the lack of trust of consumers in industry, in general. It is not incidentally, that in the 80s of the XX C., in the USA, John and Jim Naisbitts figured out a “self-assistance” or “help-yourself” megatrend²⁵ which, today, it is worthy to be observed and conceptualized as a new megatrend of world economy and which is associated here with Ecologization in the fourth dimension. It is understood here as a healthy lifestyle that allows minimizing drugs usage and maximizing extension of young age benefits. Huge business opportunities are associated with this dimension, directed to the future: ecologic tourism; health and recreation facilities; SPA and bio-cosmetic industry; anti-age series of goods and commercial programs; sport and fitness centers; organic food restaurants and shops, “environmentally integrated” hotels (in mountains, in ice, around water etc.); personal health coaching, including revival of ancient practices like yoga, u-Shu etc.

²⁵ “We are shifting from institutional help to more self-reliance in all aspects of our lives” (p.2); the megatrend number 6: “From Institutional help to Self-help” – we learn to trust and rely only on ourselves (p.59). Naisbitt, J. (1982), *Megatrends: Ten New Directions Transforming our Lives*, Warner Books.

One more – the fifth – dimension of Ecologization that can be traced, but it is ambiguous. It refers to bioengineering and genetically modified goods. On the one hand, they can be positioned as “eco”, because they are still natural; on the other hand, from the point of view of Nature, such products are outcomes of mutations which, under natural conditions represent exceptions, but in human socio-economic system turn into industrial series. The problem here is that the consequences of the consumption of the GMOs are even less predictable than of those synthetic ingredients, because their impact upon human organism is much more complex. In spite of the fact that the consequences of the GMOs are little studied yet, global GMOs industry has rapidly been growing since the end of the XX century. It is not incidentally that in such advanced and intelligent world economic structure as the European Union it becomes a standard for producers to indicate the GMOs ingredients on their goods in order to inform consumers and allow them choice in purchasing goods.

The response of the Republic of Moldova to Ecologization in the context of European Union integration

The research (that goes on) shows that feeling the pressure of Ecologization, the Republic of Moldova has more been addressing the development of green entrepreneurship rather than eco-economy as a system. The efforts for green business development can be grouped in three main categories: governmental actions; international cooperation, first of all with the EU, within the respective programs and projects; efforts undertaken at microeconomic level by economic agents.

Having referred to the governmental actions, one may notice that their main focus is on eco-agriculture and energetic sector.

In eco-agriculture the most of attention is paid to eco-agro-food industry. It was adopted the special law – Law No. 115 of June 9, 2005 on eco-agro-food production. On its basis there has been developed number of governmental decrees and regulations for implementing the eco-agro-food production and marking mechanisms.

In doing so, the EU regulations have been taken into account. First and foremost, the Regulation (CE) No. 834/2007 which sets the standards for ecologic production, marking and controlling as well as the import regime of eco-goods in to the EU from the third countries.²⁶ In the very context, it has been elaborated and launched by the Ministry of Agriculture and Food Industry of RM (MAIA) “The Program for promoting ecologic production and commercialization of 2010-2015”.²⁷

²⁶ European Commission (2007), Regulamentul (CE) Nr. 834/2007 al Consiliului din 28 iunie 2007. URL: www.justice.gov.md/.../32007R0834-Ro.pdf

²⁷ Ministry of Agriculture and Food Industry (2010), Program pentru promovarea producerii și comercializării ecologice pentru anii 2010-2015 (HVA). URL: www.maia.md/

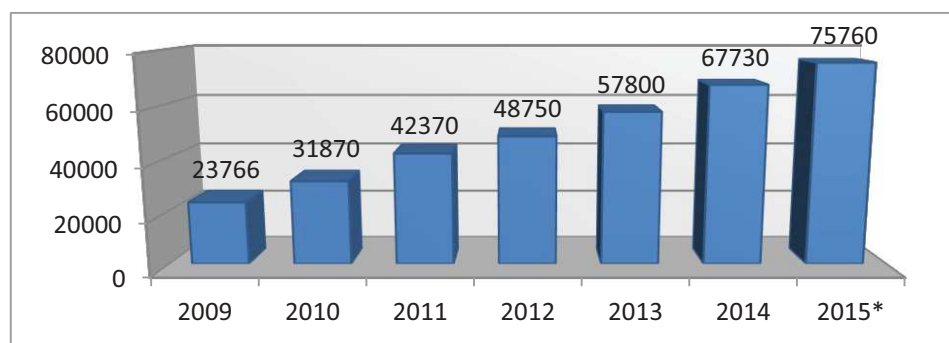
Despite the fact that the development of Eco food production is a chance for Moldova to find its niche at the EU market, the priorities traced in the Program leave room for moderate perspectives: agriculture of the RM “should be somewhere in the middle, going on the development of intensive agriculture and launching the ecologic agro food production”.²⁸

For short-term economic interest as well as under conditions of chronic socio-economic crisis such a position is justified.

For the strategic and sustainable socio-economic prospective, the eco-agro industry should become the priority, should attract more governmental attention and investment, because the individual efforts of farmers, the gastarbeiters' money (which are mostly dispersed in consumption) as well as the occasional support by the means of European and other international grants is not enough, but the effect of responding the Ecologization in terms of developing eco-tourism, eco-food production, eco-agriculture, eco-construction etc. can become significant and can turn into the competitive advantage of the national economy at global market.

It seems to be encouraging, in the frame of these ideas, the growth of eco-agro-food production oriented to export in the Republic of Moldova (see figure 1).

Figure 1. The Dynamic of eco-agro-food production oriented to export (prognosis included*)



Source: Data of the MAIA Program adapted by the author²⁹

As it is seen from figure 1, the eco-agro-food production oriented to export is in growth, including prognosis for 2015 (75.760 tonnes), what constitutes export growth in 1,3 times, compared with 2013, and in 3,2 times, compared with 2009.

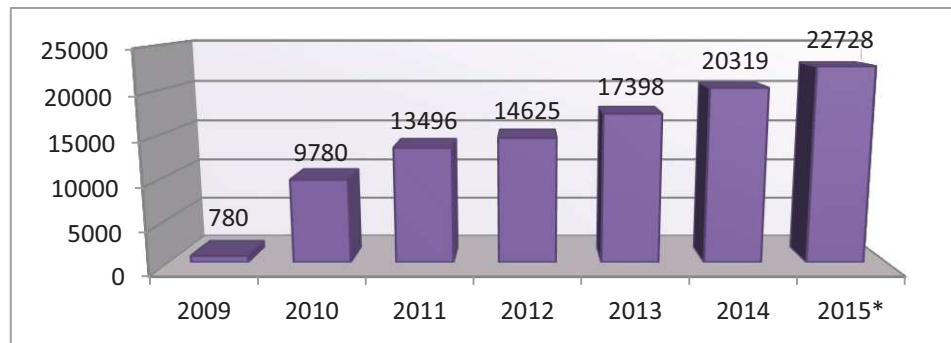
²⁸ Ibid.

²⁹ Ministry of Agriculture and Food Industry (2010), Program pentru promovarea producerii și comercializării ecologice pentru anii 2010-2015 (HVA).

URL: www.maia.md/

It can be observed the simultaneous significant increase in the volume of eco-agro-food production oriented to the local market (see figure 2).

Figure 2. The dynamic of eco-agro-food production oriented to the market (prognosis included*)



Source: Data of the MAIA Program adapted by the author³⁰

As it is observed from the figure 2, the eco-agro-food production oriented to the local Moldovan market has delayed compared with that oriented to export (780 tons and 23.766 tons in 2009, respectively). This can be explained by many reasons, among which the most considerable are as follows. First, many Moldovans, traditionally, have close ties with countryside. Before 2009, despite urbanization, they usually brought natural food from countryside to their city home. Secondly, consumer literacy for Moldovan customers was not characteristic, having taken into account little period of free market economy experience, and habit to consider food provided by local producers as natural one. Besides, Moldovan consumers have always had a kind of admiration for imported goods, especially from the EU, as the best quality ones. Moldovan consumers used to trust a lot in both local and foreign producers. Thus, the local demand for eco-agro-food was not so much specified.

During last decade and till the present, however, the situation has gradually been changing. First of all, because of deep and chronic socio-economic crisis, many Moldovans (around 1/3 of population) have been going abroad as gastarbeiters. It means that many houses of countryside have been left without workforce or the advanced-aged and minors who remained have little forces to develop agro production. The current trend is that those who live in cities prefer to buy from the supermarkets, as the transportation cost for travelling back-and-forth to countryside is in permanent increase. At the same time, city provides more and better paid jobs and living conditions than countryside so migration to city is a

³⁰ Ibid.

persistent trend. Due to living in cities, the consumer literacy of Moldovan customers increases. They learn to differentiate synthetic food from the natural one, owing to Ecologization megatrend, to European integration process that brings eco-standards and to their gasarbeiter experience in economically developed countries.

The development of eco-agro-food in Moldova, however, faces a lot of challenges. As the empirical study on this point conducted by the author by the means of interviewing and case-study methods has shown, the farmers interested in green entrepreneurship in eco-agro-food industry suffer, first of all, of such problems as lack of financial and technical support (as it has been mentioned above, the cost of organic food production today is in times higher than that of conventional agriculture). Those gasarbeitsers who succeeded in accumulation of financial resources, are willing and able to invest in this domain or are ready for cost-sharing, have complained about bureaucratic and corruption hampers as well as nepotism, those challenges being so severe that some of them were ruined in business at the beginning, others pushed to follow highly unfavorable conditions.

Sharp competition in domain comes from foreign investors who enjoy more support from Moldovan government side, compared with local producers in eco-agro-food industry, because the general policy of the state is reversed protectionism and attraction of the FDI as much as possible – the latter is being set too much hopes on. The third sort of complains was about lack of transparent or complete information regarding governmental and international programs and grants for supporting green entrepreneurship. It was not rare when information was provided in delay (but quick for relatives – nepotism), but the documents to be presented for application had to be numerous (bureaucratic hampers).

One more category of challenges regarding the development of green business in agriculture refers to certification of goods. The interviewed economic agents which contribute to the development of eco-agribusiness have emphasized that certification of goods oriented to the EU market is not only costly, but often provoke the recognition problem, because the laboratories of Moldova have not always the substances needed for extended analyses required by the EU side or even if the substances are, the laboratories should be, in their own turn, recognized by the EU. The confirmation procedure significantly increases the costs.

Having addressed to these and other issues revealed, it becomes vitally important the development of international cooperation, including that with the EU, on the basis of Programs and projects. For instance, due to Jean Monnet program (owing to which this publication has become possible too) the circulation of the information, including research results between governmental structures and universities, becomes more intensive. Universities work with youth, for example, Academy of Economic Studies – with potential businessmen and governmental officers. What is difficult to obtain (information, loans etc.) for their parents can become easier for their children if students, because of other possibilities and conditions of participation in Programs. The perspective role can play the EU contact points (information centers) opened in the main Universities of R.

Moldova. The problematic issue here is the sharp decrease in number of students, the trend that persists.

Encouraging is number of Programs and Projects developed in Moldova within Ecologization. As far as ecological agriculture is concerned, it is worthy to mention the Program on Ecologization of Economy in Eastern Partnership (EaP Green) for 2013-2017 with general budget of €12.5 (for all participants). Moldova participates in it through its Ministry of Economy. It is chance to develop further its eco-agriculture as the focus of the program is put on eco-agro-promotion, evaluation of the respective legislation, and its further adaptation to the EU eco standards. In the very context, it is worthy to notice that in October 2014, Moldavian government approved a special national mark for organic goods (see figure 3).

Figure 3. The Republic of Moldova mark for organic goods



Source: Ecoportal.md³¹

The associated with this mark brand “Ecologic Agriculture – Republic of Moldova” is considered to be the official sign of confirming the production as being controlled by the respective bodies, and the goods being corresponded to the requirements set to organic countryside products.

It is a good step forward, especially if taken into account that the situation in Moldovan food sector is not the perfect one. As it has been emphasized within a study of September 2014 – August 2015 conducted within the Program “Harmonization of Policies in Sanitary domain of the Republic of Moldova and Georgia with those of European Union”, food security in the Republic of Moldova is not at the level it should be.³² To address the consumers' complains and to solve the problems in the domain, there have been created, owing to the Program, three

³¹ Catalogul No. 1 al produselor eco din Republica Moldova. URL: www.ecoportal.md

³² Workshop on the Harmonization of Policies in Sanitary domain of the Republic of Moldova and Georgia with those of European Union, March 25, 2015.

URL: www.eeas.europa.eu

Centers for Consumer Assistance in Sanitary and Phytosanitary domain, located in Chisinau, Balt and Cahul.

The realized study has become a good feedback to the Strategy in domain of Food Security (2011-2015) that is a component of more general Strategy for the Development of Agriculture and Rural Environment of the Republic of Moldova (2014-2020).³³

Due to the signing of the Association Agreement (AA) between the R. of Moldova and the European Union, number of challenges for Ecologization in Moldova has been addressing. Within the implementation of Deep and Comprehensive Free Trade Area Agreement (the component of the AA), Moldova has to adopt 240 EU Directives in Sanitary and Phytosanitary domains. One of the actual projects, in this context, is that of TWINING on Capacity Consolidation in domain of Standardization and Metrology for 2015-2016 (€1,1 mln.), implemented by the Ministry of Economy. The efforts are being contributed to the accreditation of the Centers for eco-certification, modernization of laboratories with accordance to the EU standards to facilitate Moldovan export to the EU market.³⁴ The most of attention is paid to deep analyses of exporting goods what is quite logic from the EU point of view as it is interested in protection of its customers. The import destination remains to be the care of Moldovan government.

Another significant trend in the response of the Republic of Moldova to Ecologization is Bio-energy sector. One of the significant studies in domain was “Bioenergy in Moldova” realized in 2009 by the Academy of Sciences of RM in collaboration with the International Center for Science and High Technology (ICS) and UN Industrial Development Organization (UNIDO).³⁵ The study has reflected achievements and opportunities in domain. Among those in the mainstream with the EU cooperation are as follows:

1. Energy production from alternative sources, focus being put on biomass. In

³³ Ministry of Agriculture and Food Industry (2013), Strategia de dezvoltare a agriculturii și mediului rural din Moldova 2014-2020 din 03.06.2013.

URL: www.maia.gov.md/public/biles/proiecte/Proiect_Strategia_Agricultura_Dezvoltarea_Rurala.pdf

³⁴ The main actual bodies in this respect are: Organism for Inspection and Certification of Eco agro food Goods (CRPA Inspect). The Institute for Ethic and Ambient Certification (ICEA Group), both authorized by the Ministry of Agriculture and Food-Industry of Moldova (MAIA), and develop their activities on the basis of European Regulation CE 834/2007, Regulations USDA/NOP (USA) and CAG (Quebec, Canada). Since 2009 both institutions have closely been collaborating. The third basic body is “Certificar – Eco” SRL, the Organism for Inspection and Certification of eco agro food production. It has got its accreditation at the Center on Accreditation in domain of Conformity Evaluation of the Goods from Moldova with accordance to the international standards SM EN45011: 2003 and SM SR EN ISO/CEI 17020: 2006. On the way there is an appearance of some private laboratories.

³⁵ See for more details: Duca, G., Timofte, I., Timofte, S. (2009), Bioenergy in Moldova, Academy of Sciences of Moldova. URL: www.asm.md/

1999 Moldova implemented the first experimental installation of brochettes production from agricultural wastes. It was supported by Holland Government and implemented by Agrobioenergy Company.

2. It has been pointed out as an opportunity for Moldova biogas production. This opportunity should be carefully analyzed on the basis of system approach, according to which all the elements in the system are considered in inter correlation. Producing biogas from agricultural products (potato, beet root, wheat, corn etc.) is not an economic perspective opportunity for Moldova. Country is small and its agricultural surface is limited. Having taken into account the necessity to develop eco agriculture for export and local needs, and the fact that it can become one of the basic competitive advantages of Moldova, the usage of surfaces just for cheap agro plants (GMOs-based etc.) for biogas production is not economically justified for a long-run. Besides, biogas emissions in atmosphere provoke “green-house” effect which can result in losing the main competitive advantage of the R.M. in cooperation with the EU under Ecologization – relatively ecologic resources of the country.

At the same time, it can become real economic opportunity if implementing the projects directed to producing biogas from wastes of communalities, and further transforming the biogas in electric energy (such project was realized in Tintireni Village, Anenii Noi District). Producing biogas and electricity from wastes of animal farms or wine industry has been realized on the basis of international, including European, grants (for ex. Avicola Co., Vadu-lui-Voda). The special “Moldova Energy and Biomass” Project was implemented over the period of 2011-2014 with total budget of 14.56 mln (14 mln being provided by the EU and 560.000 co-funded by the UNDP–Moldova). Project continues. The second phase is for 2015-2017.³⁶

The European Bank for Reconstruction and Development (EBRD) launched in 2009 the Sustainable Energy Financing Project (MOSEFF) to support energy efficiency investments in Moldovan enterprises.³⁷

The list of projects and opportunities of the EU-RM cooperation under Ecologization is far to be complete. The idea here is that on the way to European integration Moldova has various opportunities not only to respond to Ecologization but also to benefit from it. In the very context, it is worthy to draw attention to the fact that the EU is interested in constitution and expansion of the pan-european ecologic network (PEEN) which is concentrated upon the consolidation of green infrastructure for both sustainable human development and green entrepreneurship.³⁸ This is the opportunity for Moldova that it should definitely use

³⁶ See for more details: Energy and Biomass Project, UNDP – Moldova. URL: www.undp.org/ and EU Delegation to Moldova. URL: www.eeas.europa.eu/

³⁷ See for more details: www.moseff.org

³⁸ See for more details: Green infrastructure, European Commission. URL: www.ec.europa.eu/environment/nature/ecosystems/

at macro-level through Programs and Projects in the mainstream of AA Implementation, and at micro-level through collaboration among economic agents, what should be facilitating again by the AA Implementation.

Conclusions:

The Ecologization is powerful socio-economic megatrend which produces deep shifts in human lifestyle and socio-economic activities. It has been manifesting itself in several dimensions. It has been concretizing in world economy as its specific megatrend which also is diverse in its forms of manifestation. Ecologization was closely linked with industrialization megatrend which has been acting throughout centuries (beginning with 16-17 century and up to the present). Unlike industrialization which is gradually fading away, Ecologization is “a young” megatrend directed to the future, owing to the fact that it is based on the conception of sustainable human and socio-economic development, and due to its high flexibility in manifestation. Another reason is that it is actively used in the marketing practices.

The Republic of Moldova is active in its response to Ecologization. The EU integration opens opportunity, especially in the forms of Programs and Projects, but also challenges for Moldova's eco-development (high competition, clash of interests of promoters of Ecologization in different dimensions of its manifestation etc.). In order to benefit the most from Ecologization, the Republic of Moldova should develop the complex specialized strategy for eco-economy that is lacking now, in order to consolidate the various occasional responses to Ecologization at macro- and micro-levels. Such a strategy will allow concentrating the effort and resources of Moldova in proper direction of sustainable development, positive synergy effect in international, including European, partnership and sound, durable, competitive advantage of Moldova at European and global markets.

The article has reflected the outcomes of the first phase of research on the topic. This is the main reason, besides volume requirements, why many aspects related to Ecologization has got to be just sketched, while number of issues regarding this megatrend as well as the response of the Republic of Moldova to it has not been addressed at all. The second phase of the research is on the way, the outcomes of which will be presented in the next article.

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