

ANALYSIS AND STRATEGY OF SUSTAINABLE DEVELOPMENT OF THE PRIDVINJE REGION

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The essence of sustainable development is defined. Main directions are determined. The results of analysis of sustainable development of Pridvinje region are given. Strategy of sustainable development of the region is presented.

Today human civilization, in addition to the impressive achievements in science, engineering and technology, has many global problems too, which are largely put our future development, and even existence, into a question. The world's population is 7 billion people and by 2050 it will be 9 billion. Currently one in five – 1.4 billion people – live on \$1.25 a day or less. One and a half billion people have no access to electricity. Two and a half billion people have no toilets. Almost a billion people are hungry every day. Emissions of greenhouse gases continue to grow, and over a third of known species will endanger, if it is not possible to stop the process of climate change [1].

In addition, it is absolutely obvious, that situation in international relations is becoming tenser. World leading countries engage in real confrontation; the international community has been divided into several parts. Problems that can be solved only through cooperation remain unresolved. And new problems appear – the main of them is terrorism.

Almost 30 years have passed since ideas of sustainable development were accepted by international community. The World Commission on Environment and Development (Brundtland Commission) published its report in 1987. It defined sustainable development as "development which meets the needs of current generations without compromising the ability of future generations to meet their own needs". The concept supports strong economic and social development, in particular for people with a low standard of living. At the same time it underlines the importance of protecting the natural resource base and the environment [2].

Today, the concept is vigorously discussed in theoretical terms; there are many different opinions and approaches. But in general, we can highlight the main features and the problems inherent in this concept today.

Traditionally it is considered that sustainable development consists of 3 components: environmental, economic and social. But there is another interesting opinion: everything is clear with ecological component, but it is very hard to divide social and economic spheres: differentiation of countries by level of well-being, poverty, migration processes, the intensity of inter-regional interactions and conflicts – is it social or economic problems?

In addition, using traditional approach to understanding of sustainable development we have no any reliable quantitative criteria to evaluate progress. Russian scientist, economist, ecologist, hydrologist, corresponding member of the Russian Academy of Sciences Victor Danilov-Danilynin offers, in the author's opinion, a more accurate classification of the main directions of sustainable development:

- environmental component – environmental protection (guaranteed not to exceed anthropogenic impacts in the economic capacity of the biosphere);
- socio-medical component – protection of the human genome and population health to prevent biological degradation;
- social-humanitarian component – formation of mechanisms (social, economic, political, etc.) which would ensure the solution of problems of the first two aspects and guaranteed protection from destruction of the structures of civilization, which are vitally important to it.

Victor Danilov-Danilynin defines sustainable development as a social development which does not destroy natural basis of society, created living conditions does not constitute a human degradation, and social-destructive processes do not develop to the extent of threatening the safety of society [3].

However, in the theory of sustainable development there are some formulated mechanisms of solving existing and potential problems:

- changing patterns of production in the direction of alternative industries and technologies that reduce the negative impact of the economy on the environment (development of high technology, alternative energy, using renewable energy resources, cleaner production, organic farming, ecological housing construction);
- the use of local renewable resources;
- reduce transport pollution, including through the rationalization of settlement and urban planning, location of production, the development of public transport and cycling, replacement of transport streams of information;
- implementation of national and local development plans oriented to the objectives and principles of sustainable development;

- wide state support and social protection of the population;
- changing consumption patterns in the direction of the rationalization of material consumption; giving the high social status and promotion of the frugal approach to consumption of resources;
- using the potential of international cooperation in the field of sustainable development, application of advanced experience of economically developed countries, the spread of advanced techniques and technologies, the development of cross-border cooperation and international relations [4].

But even if the mechanisms are developed and understandable, acceptable and seems to be effective, they are not widely implemented. As it was said before the world is immersed in the solution of more pressing problems, although the concept of sustainable development can resolve them. Unfortunately, there are few countries which are able to be proud of being close to sustainability. The absolute majority is in much more bad situation, and Republic of Belarus is not the exception.

Before trying to analyze the accordance to sustainability on more concrete example, it must be mentioned, that considering separate components of the system (i.e. different subsystems), not only internal factors must be taken into account, but external factors defined by the up-system too. Extremely rarely "external" consistent with "internal", on the contrary, more often there are contradictions, antagonisms, inconsistencies and competition. In this situation, it is a mistake to hope on spontaneity or something like "invisible hand" – it is already clear that people and their systems during their natural development will destroy themselves, if they will not be killed under the influence of destructive social forces. Global instability of a civilization is based on the actions of its subsystems and elements which ignore the imperative of sustainability (survival) of the whole system. The problem is to reconcile external and internal criteria, following the principles of humanism and respecting the rights of individuals and peoples [3].

This indicates the need for coherence and comprehensiveness of approach to the development of the whole global system with consideration of the specificity of subsystems.

Taking into account all that was said before, it is obvious, that question about analysis and making the strategy of sustainable development of little region (in our case – Pridvinje region) is very hard. But never the less it is possible to find a general answer, highlighting the most important trends.

The boundaries of territories which are chosen for the analysis may not coincide with the boundaries of territorial-administrative districts (for example, the Belarusian Polesie, Ukrainian Polesie, the Russian woodlands, areas of environmental contamination, etc.). This is due to the commonality of conditions to be included in the selected areas. It is similarly with the choice of the Pridvinje region.

This region has a unique cultural and historical heritage, well-developed industry and a large ecological and economic potential. The Pridvinje region has advantageous geographical position. It includes the territories along the Belarusian part of Zapadnaja Dvina river, the flow of the river is directed from the Russian Federation to Latvia. The river is transboundary and belongs to the basin of Baltic Sea. Pridvinje region is the region of Belarusian Poozerie, featuring unique lakes that require special care and attitude.

In fact the Pridvinje region and the territory of Vitebsk region are almost the same, because the river, with the name of which region is named and on the banks of which the largest cities of the region (Vitebsk, Polotsk and Novopolotsk) are situated, flows from East to West through the territory of almost the whole region. It largely creates common environmental and economic conditions. In addition, there are many common conditions from the historical-cultural point of view. Also Pridvinje region and the territory of the Vitebsk region are more appropriately considered as interchangeable concepts for the convenience of statistical analysis.

Unfortunately, there are no any special criteria to evaluate sustainability. We can do that only through the complex analysis of main directions of sustainable development, highlighting general trends and indicators by analytical approach.

The author proposes to allocate the following directions (internal factors) of analysis of sustainable development of Pridvinje Region:

- environment;
- production (manufacturing);
- socio-demographic direction;
- infrastructure;
- socio-cultural direction.

It is possible to allocate some other directions; for example socio-political, but it is not correct on such level (it seems to be an external factor).

Using statistics and methods of analysis, it's possible to define environmental direction of the Pridvinje region as rather disturbing situation: the extent of human impact is quite large and continues to grow, there is a substantial risk of occurrence of technogenic accidents with extremely serious consequences for ecosystems, progress towards greening and streamlining the use of natural resources is small, its intensity is low. Development of Pridvinje region does not match to sustainability in Environmental direction.

Economics

The same situation is in manufacturing direction. Dynamics of production is unstable and characterized by downward trend, the position in the system of division of labor is unstable, the intellectual potential doesn't feature positive assessments, and the situation in the energy sector is critical. Sustainable development requires a significant change in the situation.

In General, we can distinguish the following characteristic trends in socio-demographic direction of the Pridvinje region:

- overall reduction in morbidity of the population;
- the growth of malignant tumors, and Toxicological and drug addiction;
- the increase in life expectancy;
- the population decline;
- strengthening the process of population ageing;
- growth of demographic burden on the working population;
- a decrease in the number of labor resources and economically active population;
- instability of real disposable incomes of the population, in this case, the lack of clear trends as to increase or to decrease;
- steady decline in the poverty level;
- average disposable incomes per capita excess the budget of the subsistence minimum 3 times (for pensioners – 2 times);
- slight differentiation of the population by level of income tended to decrease.

The steady decline in poverty levels and a slight differentiation of the population by level of income are definitely conducive to sustainable development.

The influence of intensification of the process of population ageing and the growth of demographic burden on the working population cannot be judged clearly because they are both caused by increasing life expectancy and declining fertility. But the first option when these processes occur only due to the increase in life expectancy is the most favorable for the sustainable development.

The instability of the real disposable incomes of the population (in this case, the lack of clear trends as to increasing as to decreasing), in terms of sustainability is not entirely relevant state, and given the fact that they are only three times higher than the subsistence minimum (for pensioners – 2 times), it's safe to say that it is necessary to increase this indicator.

The population decline and a decrease in the number of labor resources and economically active population are clearly contrary to sustainable development, in addition, these trends are directly connected with other components, negatively affecting, primarily, on manufacturing direction.

In socio-infrastructure development of Pridvinje region it is possible to allocate following basic features:

- quantitative indicators of infrastructure for education and healthcare are reduced ;
- Internet is becoming more accessible;
- public transport is becoming less popular;
- the use of private vehicles is increasing ;
- the use of bicycles is becoming more popular;
- landscaping is uneven.

Thus, it can be noted that mostly negative trends prevail and in those aspects that are most important to quality of life and sustainability of society. Turns out the current status in this area is not consistent with sustainability.

The socio-humanitarian direction can be noted by the following major trends:

- the reduction of crime;
- high tolerance of the society;
- the need to preserve rich cultural and historical heritage of the region;
- tendency to stagnation of the classical cultural life are seen in the form of fewer infrastructure designed for this;
- the spread of mass culture, commercialization of culture;
- the mismatch between actual system values principles of sustainable development (subjective assessment of the author);
- little understanding in society about sustainable development.

On this basis, it can be noted that this situation is not consistent with the principles of sustainable development and, according to the author, casts doubt on the transition of the region to it, because this direction provides the basis for the implementation of necessary reforms in other areas.

So general conclusion – situation in each area is not consistent with sustainability. There are many indicators which must be improved. One of the possible variants of strategy of sustainable development is on the figure.

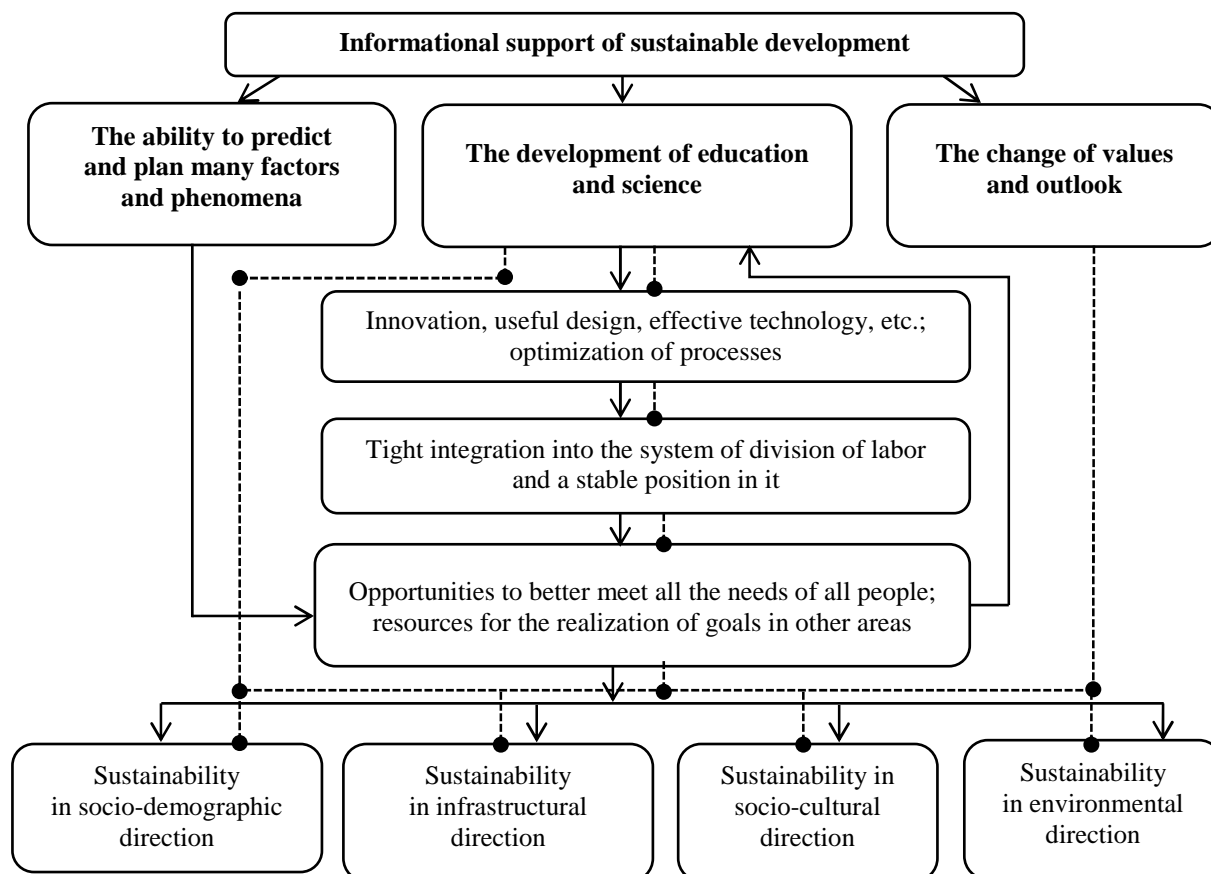


Fig. Strategy of sustainable development of Pridvinje region

Source: elaboration of the author.

In case of using this strategy there will not be any spasmodic changes. The transition is carried out smoothly and gradually. The opportunities we receive in each new cycle should gradually be used to overcome the negative phenomena described previously.

The scheme's main purpose is the definition of actions towards sustainability, not taking into account the issues related to organizational and managerial transformations that must be made in according to the strategy.

It is difficult to give precise time estimates implementation of this strategy. They can be determined only by more detailed investigation at every stage and in every aspect. The main goal is to formulate a clear idea about the paradigm in the development of the region. However, there are many external factors which are not included in the strategy.

In the reality the current economic situation, political controversy and confrontation, as well as wars and other conflicts hinder the development of dialogue between the countries to solve problems, to create and implement viable action plans towards sustainable development. In any case, as it was said in the report "Our Common Future" [2]: "Painful procedure of choice is inescapable. Ultimately, the basis for sustainable and long-term development must be grounded in the political will".

REFERENCES

1. Что такое Рио+20? [Electronic resource] // Организация Объединенных Наций. – Mode of access: <http://www.un.org/ru/sustainablefuture/about.shtml>. – Date of access: 13. 03. 2015.
2. Sustainable development – concept and action [Electronic resource] // UNECE. – Mode of access: http://www.unecce.org/oes/nutshell/2004-2005/focus_sustainable_development.html. – Date of access: 13. 03. 2015.
3. Данилов-Данильян В. Устойчивое развитие (теоретико-методологический анализ) [Электронный ресурс] / Виктор Данилов-Данильян // Экспертный сайт Высшей школы экономики. – Режим доступа: http://www.opec.ru/library/article.asp?d_no=947&c_no=19#1. – Дата доступа: 22. 09. 2015.
4. Местная повестка-21 как инструмент устойчивого развития территорий [Электронный ресурс] // Организация Объединённых Наций в Беларуси. – Режим доступа: <http://un.by/f/file/LA-21.pdf>. – Дата доступа: 19. 08. 2015.