

Sustainable development in light of international cooperation

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Summary:

Numerous developed countries as well as those entering this path have established strategies of sustainable development. Areas of activity presented in this work illustrate the wide scope of parameters and challenges for maintaining sustainable development, both on a local as well as global scale.

Key words: sustainable development, European Union directive, areas of action, eliminating the effects of environmental pollution, Rio declaration.

Balanced development – scope of the concept

Sustainable development is defined as a broadly understood social goal, encompassing balanced environmental quality accompanied by achievement of social and economical goals. The term “sustainable” may be defined as maintaining environmental capacity in time. It also encompasses aspects such as: availability of natural resources, waste assimilation, cultural values, heritage values, climate stability and maintaining biodiversity. Such environmental capacity may be measured using environmental indexes such as: size of protected areas, size of ecosystems, number of species, level of pollution and size of resources, particularly with regard to irreplaceable materials.

This term is a result of previously mentioned report created by the former Norwegian prime minister, current director of World Health Organization, Gro Harlem Brundtland, titled “Our common future.” The English term “Sustainable development” was used there. Finding an

analogous Polish expression that would properly reflect the sense of words contained in the mentioned document was somewhat troublesome. Following numerous discussions, we translated these words as: “trwały i zrównoważony rozwój” (steady and balanced development), although there are some in favor of “ekorozwój” (ecodevelopment) or “trwały rozwój” (steady progress).

A concept of “balanced development” as a shorter version of the previous expression also appears in various documents and reports. This general concept lies at the foundations of environmental politics of many countries. However, some scientific uncertainty and diverse opinions indicate, that there is still a problem concerning the value of environmental capacity. However, there are indexes, which may prove as useful operative instruments for comparison with policy goals and environmental standards, both domestic and international.

Strategic environmental evaluation is an instrument for comparison of analyzed plans and

programs with environmental politics and strategies on a national level.

Special value of such evaluation is increasingly more often recognized among European countries. As an example, the goal of European Union directive on strategic environmental evaluation was to ensure proper level of assessment at a stage of strategic decisions in all member countries. This project is considered a step toward ensuring balanced development and therefore, means of achieving goals of the European Union Fifth Environmental Action Program: "Towards Sustainability."

It is an effect of the accepted Rio Declaration on "Environment and Development" and, above all, Agenda 21 on actions undertaken at the turn of the 20th and 21st century in order to ensure sustainable development. It is supposed to optimally balance the current status with the assumed, undertaken for the future. Therefore, strategic evaluation is considered an instrument allowing for inclusion of environmental aspects and sustainable development into the mainstream decision-making processes regarding development. As opposed to individual projects, strategic evaluation method is directed toward programs at early stages of planning. Such approach provides substantial benefits in terms of strategic evaluation of the program at an early stage of its development. Conditions necessary for balancing the development goals (particularly regarding the environment) are analyzed as an element of strategic evaluation.

Many developed countries, as well as those entering this path, have strategies of sustainable development already behind them in terms of their planning as well as describing specific dimensions of their environmental policies.

At a political level, goal descriptions are least detailed. Therefore, strategic evaluations are performed at the same level. They concentrate mainly around the analysis of political goals, and their environmental cohesion. In the sustainable development document, it signifies ensuring consistency with the goals of international and global policies expressed through agreements, conventions and other documents.

Why then, are strategic evaluations so important? They include aspects of sustainable growth into internal decision-making processes. Sustainable growth is directed at fulfilling the needs of a contemporary man in such manner that would not prevent the future generations from utilizing environmental resources. This requirement results in the necessity of maintaining balance between goals and environmental, economical and social criteria.

Effects analyzed as a part of strategic evaluation may be divided into four groups:

- traditional environmental factors, such as ecological effects, quality of water and soil, quality of the air, noise levels, landscape, consequences for the population – analyzed with regard to their international, domestic and regional significance;
- outcomes associated with imposing balance, which encompass the threat of irreversible, cumulative or secondary effects such as: exploitation of non-renewable resources, loss of biodiversity, valuable natural ecosystems, as well as long-term productivity of forests or rural areas;
- induced changes in use of the land, particularly in relation to urbanization and expansion of municipal peripheries;
- political effects of breaching international agreements and other domestic policies.

Assessment of significance (or importance) of predicted effects is a key element of strategic environmental assessment process. However, up to date, no index was agreed upon, which would measure the degree of attained sustainable progress, encompassing various indexes and determining how a given factor should be weighted against other ones. Sustainable balance does not only determine beneficial effects. They may be unfavorable or, at the least, of little benefit. All of those effects should be considered through an advanced grading system, even more so when various factors undergo evaluation. Evaluation criteria must be established for selected problems in order to determine the significance of predicted outcomes.

At a strategic level, it is indicated to assess the risk of occurrence of significant outcomes (benefits, losses, conflicts) instead of making prognoses, which in turn should be performed at a

level of evaluation of a particular investment. For example, it concerns the risk of effects leading to secondary enterprises or conflicts with various development plans. In this context, the risk of occurrence of outcomes derived from secondary projects was defined as a product of probability of effect occurrence and intensity of this effect.

While determining the outcome risk, the following aspects should be taken into consideration:

- environmental absorption capacity or sensitivity;
- the scale or extent of the effect, e.g. the degree to which environmental quality may be disrupted;
- will the effects lead to sustained or temporary changes?;
- domestic or international obligations, goals and environmental quality standards,
- to what degree is reduction of the effects possible?;
- significance of the effect on a national level;
- Strategic evaluations allow for inclusion of environmental considerations at a possibly earliest stage of planning, as in the case of social and economical aspects.

Principle no. 4 of the preamble “Environment and Development” states the following: “In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.” Principle no. 8 strengthens those ideas, particularly in the fragment pertaining to the necessity to “reduce and eliminate unsustainable patterns of production and consumption” by some countries. Economical instruments are vital to realization of those goals (Principle no. 16), according to the principle: “the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.”

Areas of action for sustainable development

In order to face the challenges of the environment and growth, cosignatory nations decided on a new form of universal cooperation. It compels them to get involved in constant and constructive international dialogue inspired by the necessity of establishing more effective and

just world economy, taking into consideration the growing co-dependence of societies and the fact that sustainable development should be a priority for those societies. Conference’s “Documents” state that: “in order to achieve this new cooperation, it is important to avoid confrontation and create an atmosphere of true cooperation and unity...” (5). In this mission, particular emphasis is put on strengthening of internal and international policy and establishing multidirectional cooperation adjusted to new conditions.

National economical policies and international economic relations are associated with sustainable development. It should be noted that, in this regard, its reactivation and acceleration requires both a dynamic international supportive action, as well as decisive national policy. Both of those factors should act in parallel. A dynamic and stable world economy based on safe foundations gives a chance for progress. Therefore, support of international economic circle is a determining factor.

The role of developing countries, free of excessive external debt is noted in this process. Therefore, financial policy must serve it, without restriction of access to other markets.

Data obtained in the 80’s regarding this aspect are fundamentally negative in all cases. Therefore, a change of this state is encouraged. For that purpose, an international atmosphere supportive toward national efforts for growth should be built up. It is the only requirement for healthy internal economic policies of developed and developing countries toward achieving global progress in the area of sustainable development.

Accordingly, global economy should create an atmosphere promoting achievement of goals stated in Agenda 21 regarding environmental protection and development through:

- promotion of sustainable growth as a result of trade liberalization;
- mutual dependence of trade and environmental protection;
- ensuring proper funds for developing countries and taking care of international debts;
- support for macroeconomic enterprises toward environmental protection and development.

National efforts must be directed toward mutual dependence of the elements of international economical system and needs of humanity in the field of safe and stable natural environment. Therefore, it remains their intention to establish agreement at the tangent points in areas such as: environmental protection, trade and development and took place during meetings of existing international organizations as well as in their individual internal policies. An optimal, just, safe, non-discriminatory and far-sighted, multi-lateral trading system concordant with sustainable development may lead to optimal distribution of global production. It is in the interest of all participating partners, but providing developing countries with access to the world market and export, together with healthy macroeconomic and ecologic policy, will exert positive influence on environmental protection.

Thus, it will contribute to the field of sustainable development. Healthy economic policy and management, effective and far-sighted public administration, consideration of environmental problems during a decision-making process as well as progress-oriented and democratic government also act in its favor. It allows for participation in economic management of all involved parties under specific conditions of individual countries. Removal of the existing anomalies in international trade is of great significance here, as it allows the developing countries to access funds needed for financing investments necessary for ensuring sustainable development. Therefore, significant and progressive increase of preferences for agriculture (including internal regulations, access to the market and export subsidies), industry and other economical sectors seems necessary for prevention of large losses generated by more efficient producers, particularly in the developing countries, when different preferences are used. Therefore, there is a place in agriculture, industry and other branches of economy for initiatives for trade liberalization and creation of an economic policy, in which production would be more closely related to the needs of environmental protection and development. Liberalization of trade should be considered on a global scale, so that particular sectors of the economy could contribute toward achieving sustainable development.

International trade, influenced by various factors creating new areas of activity as well as new possibilities in this domain, determined an even greater significance of international economic cooperation. In the past few years, world trade developed faster than world production. However, it should be noted that the expansion of world trade was unevenly distributed and only a small number of developing countries was able to achieve a perceptible increase in export. Pressures from the protectionists and unilateral economic policy restrain functioning of open, multilateral trade system, exerting a negative influence, particularly on the export of the developing countries. It should be noted in this regard, that economic integration intensified during the past few years, which should boost the world trade and increase the trading as well as growth capabilities of developing countries. Also, a great number of those countries introduced bold reform policies, including ambitious, autonomic trade liberalization during the past several years. Simultaneously, far fetched reforms and deep restructuration processes taking place in Central and Eastern European countries, pave their way to integration with the world market and international trade. Growing attention is directed at increasing the role of enterprise in economy and promotion of competition. Generalized System of Preferences (GSP) turned out to be a useful instrument of economic policy despite the fact that its goals were not entirely fulfilled and a system of trade facilitation based on electronic data interchange (EDI) increased the commercial effectiveness of public and private sectors. Solutions between environmental protection and forms of trade are diverse and were not specified to date.

Rapid implementation of various agreements of the Uruguay Round regarding multilateral trade negotiations will result in further liberalization and expansion of global trade. It will augment trading and growth capabilities of the countries entering the path toward development and ensure greater security and farsightedness of international trade.

Goals, recommendations and feasibility were determined in light of the described areas of action. It also included mutual dependence of trade and environmental protection, support for economic actions promoting sustainable growth.

Another area of action that could contribute to the safety of long-term progress is the fight against poverty. It may be divided into the following sections:

- providing the poor with sustainable access to the means of supporting their basic needs;
- facilitating integration of sustainable access to the means of support with environmental protection.

Changing the consumption model, which is a broad topic and its problems are mentioned in numerous chapters of Agenda 21, serves those areas. They are primarily located in the chapters related to the use of energy, transport, waste as well as economic instruments and transfer of technologies. The areas of action include the following:

- balancing the models of consumption and production,
- undertaking appropriate policies and economic strategies by individual countries in order to eliminate the imbalanced consumption models. The goals of the former area include the following:
 - promoting a model of consumption and production, which would not lead to ecological damage and fulfill the needs of humanity,
 - achieving better understanding of the role of consumption in the process of sustainable development as well as introduction of more balanced consumption models.

Poverty and degradation of natural environment are closely related. If poverty leads to ecological crises, the majority of cases of sustained environmental degradation result from an imbalanced model of production and consumption. Therefore, in the coming years, governments together with appropriate supporting organizations should strive to achieve broad goals, including:

- promotion of effective production processes and balanced consumption in the process of economic growth, taking into consideration the needs of the developing countries,
- developing strategies of internal actions, which will allow for introduction of balanced production and consumption models,
- strengthening the factors that support a production – consumption model consistent with sustainable development and promotion of actions for transfer of environment-friendly technologies to developing countries.

These goals pertain to the latter area of action.

In several chapters, areas of action are directly conformed to the security issues:

- environment-safe application of biotechnology (16),
- environment-safe utilization of toxic and dangerous chemicals, fighting illegal trading of those chemicals (19),
- environment-safe management of dangerous waste
- preventing illegal trade of dangerous materials (20),
- environment-safe management of solid waste and residues from wastewater treatment plans (21),
- safe and environmentally friendly management of radioactive waste (22),

Biotechnology, as a combination of genetic engineering, biochemistry and microbiology, is an area of intensely developing science, constituting a compilation of methods of genetic engineering. Not all fundamental environmental problems may be solved using biotechnological processes to attain sustainable growth. The reality must diminish the expectations. However, biotechnologists announce expectations of great contributions to, e.g. progress in health care, increase in food safety by introducing methods of sustained and ecologically sustainable agriculture as well as detoxication of dangerous waste. It should be accompanied by general partnership between countries with rich biological resources, but lacking the experience and investment funds necessary for utilization of those resources through biotechnological processes and countries with biotechnological experience. This experience refers to the scope of transformation of biological resources in a manner, which would allow them to contribute to sustainable development. Described areas of action promote the principles of creating environmentally healthy uses for biotechnology agreed upon by the international community, in order to raise public confidence and convince the community to support ecologically safe uses of biotechnology.

General policy indicates, that chemicals can be used to meet the economic and social needs of people around the world in a rational and largely safe manner. However, there is still a lot to do to ensure environmentally safe conduct with toxic

chemical substances. Two main problems arise in this area, particularly when it comes to developing countries:

- absence of sufficient scientific information allowing for assessment of risk associated with use of large numbers of chemical substances;
- lack of means for assessment of chemical substances owned and used by people.

The processes of severe chemical environmental pollution take place in various industrial centers around the world in the recent years. It is associated with threat to human health, genetic structure and reproduction, as well as to the environment. Elimination of the effects of contamination requires large expenditures and development of new technologies. Long-term effects of chemical environmental contamination leading to climatic changes were only recently recognized and understood. Also recently, the humanity realized the extent of those effects. A large number of international institutions are involved in works concerning chemical safety. Programs for its promotion were implemented in many countries. These works have international implications, as dangerous effects of chemicals know no national boundaries. However, significant aid for national and international enterprises in this area is necessary in order to work out methods of environmentally safe use of chemical substances.

Seven areas of action are proposed in this area:

- broadening and acceleration of international evaluations of chemical threats,
- unification of classification and labeling of chemicals,
- exchange of information regarding toxic chemicals and chemical threats,
- establishing programs for risk reduction,
- strengthening national capabilities and skills for effective toxic substance management,
- preventing illegal international trade of toxic and dangerous substances,
- deepening international cooperation in some areas of actions.

Effective control of production, storage, handling, recycling, transport, retrieval of raw materials and management of dangerous wastes are important for human wellbeing, environmental protection, as well as management of natural resources and sustainable development. Preventing formation of dangerous materials requires

knowledge, experienced staff, resources and financial means, as well as technological and scientific potential. International trade of dangerous wastes, with partial breaching of national legislation and international policies, causing harm to the environment and public health in all countries, particularly the developing ones, is a matter of concern for the international society.

The master task in terms of management of vital processes involves the greatest possible minimization of dangerous waste production, as well as such management of waste products so that they would not cause harm to health and the environment. It encompasses four areas of action:

- promoting prevention of dangerous waste formation and minimization of the amounts of those products,
- promoting and strengthening international cooperation in management of cross-border movement of dangerous wastes,
- promoting and strengthening institutional powers with regard to dangerous waste management,
- preventing illegal international trade of dangerous waste products.

The General Assembly concurred that environmentally safe waste management is one of the main actions undertaken in order to maintain the wellbeing of global environment and to attain environmentally healthy, stable growth of all countries.

Areas of action described in this chapter of Agenda 21 are closely related to the following areas of action contained in other chapters:

- quality protection and use of inland water supplies (ch. 18);
- promoting sustainable development of human habitats (ch. 7);
- protection and promotion of human health (ch. 6);
- changing the model of consumption (ch. 4).

According to this, the extent of necessary actions should be based on a hierarchy of goals and concentrate on four main fields of action related to waste products. They are mutually interconnected and supportive of each other. They come down to:

- minimizing the amount of waste;

- maximization of environmentally safe use of secondary materials and waste recycling;
- promotion of environmentally safe elimination and processing of waste products;
- broadening the scope of services with respect to elimination and processing of waste products.

Radioactive waste is formed both during use of nuclear fuel as well as radioactive materials (in medicine, science and industry) Radiological risk and safety threats are diverse on the part of radiological waste: they range from very small to great.

Safe and environmentally harmless management of radioactive materials, including their minimization, transport and utilization is of great importance. Most countries with leading nuclear energy

programs have undertaken administrative and technological systems of waste management. In many other countries, still preparing for nuclear programs or only using radioactive materials, there is still a need for creation of such systems, which is becoming increasingly urgent.

A fundamental goal of such program is to ensure safe management, transport, storage and utilization of radioactive wastes. It is directed at protection of human and environmental health and is contained within a broader framework of interactive and integrated approach toward their management within a broadly understood safety system.

The described areas of action illustrate the extent of parameters and challenges for maintaining sustainable development.

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