# New Challenges and Opportunities for Putting into Value the Diversity of the Danube Territorial Capital, as a "European Axis" in light of Bio-Resources Supply during 2030-2050, in the context of Global Demographic Projections for 2100

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**Abstract:** Diversity of the Danube territorial capital is the part of World Heritage public investment biodiversity, environmental protection, sustainable development, reducing poverty and increasing social inclusion, continued development of the global economic welfare, promote a healthy environment, conservation of bio-resources as a "European Axis", business development in the context of eco-bio-economic, diplomatic instruments promoting eco-bio-economic development, food security, public health, are only several ideas of a smart modern world, which can be attached to development philosophy type "smart power" and contextual intelligence world for Sustainable Development Smart (Smart Sustainable Development) by Sustainable Diplomacy Smart (Smart Sustainable Diplomacy) in diversity of the Danube territorial capital, which can be a key ingredient of success for Excellence in Foreign Affairs Diplomatic and intelligence dedicated Environmental and Eco- Bio-Economy (SMART & Excellence in Environmental and Eco-Bio-Economic Affairs).

Keywords: eco-bio-economy; conservation; bio-resources

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## 1. Introduction

Network of Excellence "Sustainable Development in a Diverse World" (Network of Excellence "Sustainable Development in a Diverse World"), funded by the European Union interprets cultural diversity as a key element of sustainable development that integrates with other multidisciplinary fields mentioned. Agenda 21 for Culture and the Executive Bureau of United Cities and Local Government (United Cities and Local Governments (UCLG) Executive Bureau), have made political statement - "Culture: the fourth pillar of sustainable development", adopted on 17 November 2010 the World Summit of Local and regional Leader-s, the 3rd World Congress of UCGL, held in Mexico City. As a perspective, sustainable development must be achieved by promoting appropriate cultural policies and adding them in all public policies. The term Sustainable Development Smart (Smart Sustainable Development<sup>1</sup>) addresses a comprehensive approach to sustainable development by using concepts related to eco-bio-economy, innovation and quality. The term Intelligent Integrated Sustainable Development (Integrated Smart Sustainable Development) is launched to stimulate networking concepts and economic eco, bio-economic, economics, biology, biodiversity, ecology and green quality approach integrating new areas such as : eco-bio-economy, agro green power, international diplomacy, eco-bio-diplomacy, global economy, sustainable development. To ensure sustainable development integrated environment and business, communities and economic welfare, we addressed key factors could be: integrating the principles of quality and innovation, total quality management, continuous improvement, excellence in business and organizational quality green and global policy advocacy and action plans with active measures for integrated environmental health, biodiversity for sustainable development in all areas of life.

The European Union defines Sustainable Development as to make society a better quality of life for all (Bogdan, et.all., 2010) for the present and future generations. European Sustainable development is a vision of progress that links economic development, environmental protection and social justice, the values that are recognized and applied by democratic governments and political movements around the world.

Policies to address are:

- equitable and balanced economic development;
- high occupancy levels of employment, social cohesion and inclusion;

• a high level of environmental protection and responsible use of natural resources;

- a system of political decision-making, open, transparent and quantifiable;
- effective international cooperation to promote global sustainable development.

<sup>&</sup>lt;sup>1</sup> http://ec.europa.eu/sustainable.

European Sustainable Development tools are:

- Environmental indicators;
- Strategy on the prevention and recycling of waste;
- Action Plan for Environmental Technology;
- CIP Competitiveness and Innovation Framework Program 2007-2013;
- A program for clean and competitive SME business;
- Promoting corporate social responsibility;
- Agenda for a sustainable and competitive European tourism;
- Fund Global Energy Efficiency and Renewable;
- EU Environmental Policy Integration;
- Strategy for integrating environmental issues into EU policies;
- Internal policies of the EU;
- Integration of environmental protection energy policy;
- European Approaches for sustainable agriculture European;
- Strategy to integrate environmental policies in the EU Single Market;
- industry and environment;
- · Promote sustainable development in extractive industries we;
- Integration of environmental requirements in EU Fisheries Policy;
- Building sustainable aquaculture development;
- Strategy for Sustainable Development in EU aquaculture;
- Integration of environmental issues in EU economic policy;
- The internationalization of external transport costs;
- Transport and Environment;
- Integrating the environment into air transport;
- Green Public Procurements;
- EU Foreign Policy;
- Integration of environmental policies in external relations;
- Integrate sustainable development cooperation policy of the EU;<sup>1</sup>
- Action on specific geographical regions;
- Thematic Strategy on the Urban Environmental;
- Development and integrated management of coastal areas.

In 2010, the official meeting of the Europe 2020 Strategy, sustainable development gains priority role in the reform of the European Union, along with the development of intelligent and inclusive development.

### 2. Material and Methods

In developing the work methods used is to systematically study the cross pursuing issues, phenomena and processes at a time and longitudinal methods. As a method

<sup>&</sup>lt;sup>1</sup> http://europa.eu/legislation\_summaries/environment/sustainable\_development/index\_en.ht.

for determining the regional biodiversity systematic study has used cross methods, aiming issues, phenomena and processes at a time and longitudinal methods, seeking processes, while issues. Were used as sequential methods, where each method (quantitative or qualitative) research has been addressed in the same turn, and theoretical and methodological triangulation method for determining the correlation with specific indicators of biodiversity and territorial capital.

Interdependencies between socio-economic phenomena and diversity of the Danube territorial capital that occur in the context of regional sustainable development and identify viable solutions to insure the conservation of agrobiodiversity as part of natural and cultural heritage of the Danube Delta.

### 3. Results and Discussions

At the EU level and at national level and the bio-economy and eco-economy covered in policies and strategies for research and reference documents included as socio-economic development priorities. Consequently, the European Commission adopted on 13 February 2012, a strategy for sustainable use of renewable resources. Strategy for "Innovating for Sustainable Growth: a Bio-economy for Europe"

Considering that the world population will grow numerically estimating 9 billion people by 2050, and natural resources are limited, Europe must radically change the approach to production, consumption, processing, storage, recycling and disposal resources biological.

The Europe 2020 strategy calls for bio-economy as a key element for smart and diversity of the Danube territorial capital in Europe.

The bio-economy Strategy and related Action Plan aim to pave the way towards a society more innovative, more efficient in terms of resource and competitive, which reconciles food security with the sustainable use of bio-resources renewable industrial purposes, ensuring at the same time, environmental protection. The strategy is based on the Framework Programme for Research and Technological Development (FP8) and the EU Framework Programme for Research and Innovation (Horizon 2020).

The objective of the strategy is to have a more innovative, low, reconciling the demands on agriculture and sustainable fisheries, food security and sustainable use of biological resources for industrial purposes, while ensuring environmental protection and diversity of the Danube territorial capital.



(orig. Alexandru T. Bogdan, Dorina Bogdan and Amalia Străteanu, 2013)

Investment in research, innovation and skills aimed at providing substantial funding from EU and national sources and private investment and partnerships for research and innovation in the bio-economy. Further development of the Joint Programming Initiatives ERA-Net<sup>1</sup> is to increase the activities consistency and improve synergies between public programs. Territorial Bio-cluster Support and Knowledge and Innovation Communities of the European Institute of Innovation and Technology want to create the partnerships with the private sector. Presentation of the main concepts and priorities for research and innovation in food, agriculture and sustainable forestry and marine and maritime activities it is in the context of Horizon 2020.

It also aims at increasing the share of multi-disciplinary and cross-area research and innovation, in order to address the complexity and interconnections societal challenges by improving the knowledge base of existing and development of new technologies; providing scientific advice to policy decisions are taken notice of the advantages and tradeoffs bio solutions and promoting assimilation and dissemination of innovations in bio-economic sectors and create further feedback mechanisms for regulation and policy measures, as appropriate. It is important the extending support to knowledge networks and consulting services and business

<sup>&</sup>lt;sup>1</sup> http://www.unep-wcmc.org/our-work\_18.html.

support, especially through the European Innovation Partnerships and bio-cluster.

An important role is to create human resources needed to sustain growth and further integration of bio-economic sectors by organizing university for a to develop new curricula and training programs in the bio-economy. In this context, Romania has adopted the Plan for research and development in agriculture and rural development for 2011-2014 entitled "Agriculture and Rural Development - CAP HORIZON 2020 (adhered 2020) in light of bio-resources supply during 2030-2050.

The purpose of drafting and adopting ADER Plan 2020 was to find solutions and offer solutions adapted to the agro-eco-regional climate characteristics which correspond to the current state of Romania's rural development, include the diversity of the Danube territorial capital.

In the context of climate change has become finding innovative solutions to adapt the techniques and technologies of crop and livestock so that farms can help increase the share of agriculture in GDP value.

Also, it was imperative to find viable solutions for the conservation and sustainable use of agricultural resources of Danube region (soil, water, plant genetic resources, animal genetic resources, manpower, and financial resources) in light of bioresources supply.

Mobilization of agricultural research efforts in order to orient it towards the challenges the Romanian society of the globalization of the world economy on the one hand, and the consequences of climate change required a fundamentally new approach to research topics within the project type sector.

It was necessary that they be consistent with the objectives of the European scientific community programming and national needs and particularise the Danube region potential. Thus, Romania as a member state must fulfil European commitments and achieve sustainable development of agriculture and the countryside Romanian.

#### 4. Conclusions

Thus we conclude that scientific research in the bio-economy and therefore in the sustainable development is an important tool in the sustainable development of the regional Danube patrimony in the context of "European axis" research collaboration. The development of a linked to the existence of the Danube territorial capital policies and programs aimed at research and innovation.

It is necessary the implemented the new concept development- the Eco-Bio-Diplomacy that can aspire to promote Eco-Bio-Economy vision globally, using diplomatic channels specialized in equal measure, using modern art and 212 intelligence public diplomacy in international relations and activities cooperation at all levels

Based on Bio-Eco-Management and Sustainable Intelligent Management can support the development of management that diplomats today and tomorrow, as an integrated concept that will address sustainable development and especially intelligent promote policies, strategies, tools, eco-modern bio diplomatic action, hard and soft type, methods of implementation and continuous improvement measures inspired not least, TOM (total quality management), types of management success measurable, using the-best-practices in all, the management, and the attractiveness of success stories from all walks of life, dedicated to smart, sustainable, inclusive towards wealth and prosperity. The introduction of new methods of Quality Management, Human Resources Innovation through motivation and constant promotion of the values and innovative ideas by standardizing processes and diplomatic specific activities by developing new ideas and projects proactive, specific campaigns, stimulating application "the-bestpractices" and motivating creativity, performance, innovation diplomatic act as a science. "A Diplomat - A project launched diplomatic" could help and encourage any attitude lighting management of international relations, diplomacy supporting modern of today and tomorrow, to ensure eco-bio-sustainable development, the idea that each diplomat at the level reached, could contribute permanent staff and with their own projects quality, innovation and constant focus on ongoing diplomatic specialization, continuous improvement activities representation in foreign affairs and international relations development between countries of the world.

#### 5. References

Bogdan, A. T., Miresan, V., Mironov, A., Chelmu, S., Boboc, V., Surdu, I., Burlacu, R., Diaconescu, D., Strateanu, A. (2010). Prospects of Agrifood Green Power in 2050 and Forecasting for 2100 with Sustenable Solutions Based on Ecobioeconomics New Paradigm. *Bulletin UASVM Animal Science and Biotechnologies* 67(1-2).

Brown, L. (2002). The eco-economic revolution – Getting the market in sync with nature. *Futurist* 36 (2): 23-32.

Brown, Lester R. (2011). The New Geopolitics of Food. Foreign Policy, May/June.

FAO (2011). World Watch List for Domestic Animal Diversity. Third Edition. Food and Agriculture Organization of the United Nations (FAO), Rome, Italy, 726.

#### **Online** Sources

http://www.unep-wcmc.org/our-work\_18.html.

http://www.unep-wcmc.org/climate-change-and-biodiversity.

http://europa.eu/legislation\_summaries/environment/sustainable\_development/index\_en.ht.