



**RESEARCH PAPER**

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**GEORGIA**  
**BLUE ECONOMY IN THE MARINE SECTOR**

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**Georgia**  
**Blue Economy in the Marine Sector**

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**Abstract:**

In today's economy, people all over the world rely on ships to transport the commodities, fuel, goods and products that they depend on. Maritime transport is the backbone of international trade and global markets for national economic growth, something which is discussed and elaborated for the country of Georgia.

Ships today are more technically advanced, more sophisticated, safer and more environment-friendly than ever before; and, they have never carried so much cargo and never been more efficient than they are today.

Seas are some of the most productive ecosystems on the planet, providing an array of services that support economic growth. Services, including protection from natural hazards, weather regulation, shoreline stabilization, fisheries, energy from wind, waves and offshore oil, sea bound trade, tourism and many others, are a considerable part of nationwide economic activities.

Maritime activity can both drive and support a growing economy. And this can be achieved in several ways in the Country of Georgia thus, by improving the existing marine infrastructure, and promoting marine activities in general, even fisheries and maritime tourism. This paper supplies valuable suggestions and measures for improving the marine sector of Georgia, always adapted to the blue economy principles.

This paper examines the “Blue Economy” principles in Georgia from the evolutionary governance perspective. The authors will observe governing practices in the coastal and

marine realm that differ from governance on land and make conclusions on whether the shift from government to governance took place in the marine sector of Georgia and whether the governance practice is capable of adapting to new evolutions.

The paper provides an analysis on whether there was an institutional change in the marine sector of Georgia and whether the nature of marine and coastal resources was taken into consideration in the process of institutional change. The authors will also analyze the evolutionary character of the governing practices in the Georgian marine sector from the EGT standpoint.

The paper elaborates on a marine evolutionary governance theory that allows for multiple realities and rationalities and allows seeing marine governance as radically evolutionary as driven by actions and ideas.

***Keywords: Blue economy; marine sector; Black sea; sea transport; evolutionary governance theory.***

## **INTRODUCTION**

### **Global Guide of "Blue Economy" Initiatives**

About a century ago the academician V. Vernadsky (Vernadsky V.I., 1945) put forward the concept on inevitability formation of the noosfera, and by the end of the twentieth century, the basic principles of these relations were established at the UN Conference in Rio de Janeiro (Brazil) (UN Conference, 1992). All States participating in the forum took over The National level implementation of the obligation to provide an articulate ideas.

Twenty years later, Rio de Janeiro (Brazil) was considered to be a key instrument of sustainable development at the Rio + 20 Conference in 2012 as a "green economy". The "green economy" was defined as the lowest use of carbon, the efficient use of resources and the economy of social engagement. Accordingly, "green economy" is a system of economic activity related to the production, distribution and consumption of goods that improves human well-being and social justice, which, in turn, is a result of the reduction of environmental and ecological risks. The concept of "green economy" implies ecologically pure energy production, efficient use of resources, and reduction of waste and implementation of biodiversity measures.

The concept of a blue economy came out of the 2012 Rio+20 Conference and emphasizes conservation and sustainable management, based on the premise that healthy ocean ecosystems are more productive and form a vital basis for sustainable ocean-based economies (UN DESA, 2014).

What is the situation now? Of course, many things have changed in the world. Many countries have adopted the Law on Sustainable Development and are realizing its realization in the field of activity. Some countries even have basic laws on sustainable development. Such countries are characterized by the low quality level of life of the population and after the implementation of hunger, poverty, and equal rights programs they will be expected to be able to formulate the goals of sustainable development and develop different programs for their implementation.

Implementation of sustainable development principles will, of course, reduce the consumption and waste of natural resources, but unfortunately it cannot exclude the environmental impact of the environment. From this perspective, the question arises naturally: what will happen in the future? Which way of development should go to mankind?

Challenges in the sustainable use of marine resources— such as the impacts of climate change in the form of rising sea levels, increased frequency and severity of extreme weather events, and rising temperatures—are going to have direct and indirect impacts on oceans-related sectors, such as fisheries, aquaculture, and tourism, and on maritime transport infrastructure, such as ports, with broader implications for international trade and for the development prospects of the most vulnerable nations, in particular Georgia.

The reasonable management of maritime resources and the ecological improvement of the seas is a way to sustainable future, which can not be achieved without joint efforts. The maritime sector is of critical significance to any economy.

## **THE BLUE ECONOMY PERSPECTIVE FOR GEORGIA**

### **Georgia and the Black Sea**

Georgia is a maritime country. It is surrounded by the Black Sea from the West. The length of the coastline of Georgia is 315 km. The Black Sea is neighbouring Georgia with quite a few rivers Rioni, Bzipi, Kodori, Enguri, Chorokhi and many small rivers. An average of 48.0 km<sup>3</sup> of water is flowing into the Black Sea from our country's territory, and rivers cover approximately 28 million saplings.

Winter on the Black Sea coast of Georgia is soft and warm. The average temperature in January is 4-7<sup>0</sup> and in July 22-23<sup>0</sup>. The precipitation is abundant at all times of year. The southern part namely Colchis is especially wet with a lot of rain.

The waves have great significance because of the waves of great waves and shore of the waves within Georgia. The most frequently up to 1 m, and rarely 5-6 m high waves. The height of the waves at the foothills and shore protective walls reach 10 m during a special storm, and the height of the spine is 20-30 m.

Sea level with the shores of the country is experiencing seasonal fluctuations during the year. The maximum level is in July, and minimum - in October. Depression (amplitude approximately 20 cm) is due to the change in surface runoff, precipitation and evaporation year. (Trapaidze V. 2012)

The importance of the Black Sea for Georgia is priceless. It represents the most important resource potential, recreational zones and the main arteries of foreign relations.

The future of the Black Sea will depend on the economic, social and political independence of the country. The geopolitical location of the country is transit freight, especially the general cargo of the countries of the Transcaucasia (Armenia, Azerbaijan), Central Asia (Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan) and Kazakhstan, as well as Iran, Afghanistan and some other states. Using it to happen - The closest way to Western countries and among them. Importance of the Black Sea is exemplary in export and import of Georgia, transportation of passengers, fish recuperation.

Warm climate, good beaches, long season bathing, high sea water, unique landscape diversity of coastal areas, some mineral springs with medicinal properties, and other best conditions for relaxation and a range of diseases.

## **“Blue Growth” potentials in Georgia**

### **1.Land**

Nowadays, maritime industry is recognized as a significant part of the economy. And as everyone is striving for economic growth, a new magic word has been created: blue growth. (European Commission, COM(2012) 494 final). Indeed, the seas and oceans have the potential to be a major source of new jobs and growth. According to the European Commission, the EU’s blue economy represents 5.4 million jobs and a gross value added of just under € 500 billion per year. (Ibid., p. 2.)

The Blue Economy espouses: “improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities” and it endorses the same principles of low carbon, resource efficiency and social inclusion, but it is grounded in a developing world context and fashioned to reflect the circumstances and needs of countries whose future resource base is marine (UNEP, 2013, p. 3).

The aim of Blue Economy model is to shift society from scarcity to abundance –based on what we have, and to start tackling issues that cause environmental and related problems through new and novel ways. (Kathijotes, Sekhniashvili, 2017)

Historically, economic activity has been managed on a sectoral basis in Georgia, with only limited coordination between ministries, regulatory bodies and industry when overseeing, among other things, overlap of property rights (particularly licences for the exploration of extractive materials), shipping routes and fishing grounds. Governing a sustainable marine economy will be far more complex. Ecosystem-based management in which both the economy and ecosystems thrive, and its most important implementing tool, marine spatial planning (MSP), requires a set of integrated governance and supporting conditions to be present. These include good laws and regulations, strong institutions and interministerial co-operation, inclusive decisionmaking processes involving all stakeholders (including business), evidence-based support, For Georgia this will be a considerable challenge. Creating a blue economy in the Georgia will require major investments of capital and political will and take decades to complete. Defining the blue economy, then articulating how to piece together the enabling legal, governance, investment and financing arrangements—and implementing these—will be a major challenge.

Georgia's maritime ports are not only important for our country but also for other Transcaucasia and Central Asian countries as it is the most favorable and shortest route to the Eurasian corridor in Georgia. The latter are distinguished with oil supplies, cotton, wool, meat, etc. At the same time, these states are distinguished by the stable growth of revenue, which is accompanied by a high demand for high-tech goods, which is being delivered from the West, and the most naturally short walks on the territory of Georgia. The process of establishing the country as a key transit region is implemented.

In the event of an appropriate political climate, it is possible to put Iran on the agenda of Georgia's transit route, which will further boost the importance of Georgia's maritime ports.



A specific expression of interest in the Caucasus region is the EU-known TRACECA project that connects Central Asia and the Danube basin countries. This transport-communication corridor of Europe-Asia will pass through one of the many branches of our country, which will guarantee stability and economic growth. That's why the future perspective is reliable.

Georgia's transport infrastructure is unimaginable without development of marine ports. At the same time, development of ports should be proportionate to other transport infrastructure of Georgia. An intensive work is underway for the sharp increase of its capacity on the East-West highway of Georgia's road; similar works are carried out on the Georgian Railway. Therefore it is necessary to develop a scientifically justified program for the development of marine infrastructure in Georgia.

Georgia's economy is still in a "developing" stage. The share of domestic product volume is still very low, but the natural resources of Georgia, the education and professionalism of the population, the country's aspiration - engage in the world economic processes, promotes rapid development of the economy in the future. Naturally, in this case the demand for transportation will be increased from the country's economy, including the first of the maritime traffic.

## **2. Sea**

According to FAO, there are 26,000 river basins in Georgia and 54,88 km of total length - 860 lake and 12 water reservoirs, with a total area of 277 square kilometers. The fish species are rich in the Black Sea (52 species of fish), as well as Georgia's internal waters (rivers, lakes, water reservoirs and water reservoirs), where 71 species of fish are based on Fish base, one of the largest fish in the fish. (FAO, 2016)

The Black Sea's ecosystems and natural resources form a unique asset for the region's countries and territories, and that understanding and measuring the economic activity that is tied to this "natural capital" asset is essential for sustainably growing the region's economies.

For now, the region's sea economy is not well measured or well understood. This consists almost entirely of market-based activities, since the non-market values of many ecosystem services are not easily valued monetarily. Tourism and Transport - This is the main economic benefit received from the sea in Georgia. According to the first data of the National Statistics Office of Georgia in 2016, fisheries share of the country's gross domestic product is only 0.03% or 11.4 million GEL. (National Statistics Office of Georgia, 2016)

The World Bank increased its active investment portfolio in projects aiming to increase the ocean's natural capital to some US\$6.4 billion by 2015, with support for sustainable fisheries and aquaculture rising from practically zero in 2004 to almost US\$1 billion by 2015. Still, much remains to be done. In 2016 UN Secretary General Ban Ki-Moon underlined the continuing threat with a warning that "the oceans' carrying capacity is near or at its limit" and that "urgent action on a global scale" is needed to protect them. (United Nations, 2016)

What is the situation in Georgia? The main law of state policy implementation in the field of water resources protection and use is the Law of Georgia on Water. Consequently, in the Georgian law for improvement of water quality management, "water on water" periodically changes in certain normative acts in the legislation.

Within the framework of the European Neighborhood Policy, the Government of Georgia has taken responsibility for environmental protection, including the Georgian legislation in the water sector to meet EU requirements. The national program for harmonization with the

European Union legislation of the Georgian legislation provides the specific directives of the European Union in the water sector, which are considered to be prioritized.

The need for transformation in the field of water is determined by:

- Most of the legal norms of the Georgian law on "Water on Water", adopted on 16 October 1997, are the only nominal nature of the main legislative act in the water sector.
- The Law of Georgia on Water Mainly regulates the aspects related to surface waters and actually leaves groundwater (groundwater) resources and coastal waters without regulation
- From the adoption of the Law of Georgia on Water, since 1997, there has been no consistent review of the norms defined by the law in the adjoining sectors of the law (especially in legislation and maritime legislation in the field of land use).
- Acting on water in the water sector is not actually regulated by water management resources, as well as issues related to ownership, use and disposal of water bodies.
- The improvement of water in the sphere of water can only be achieved through deliberate and consistent reform. Such reform should cover all aspects of water resources protection and rational (sustainable) use - strategic, legal, normative, technical, institutional, administrative and financial.
- In addition, the reform should be based on a methodological approach to the modern internationally recognized and internationally recognized requirements in the developed world, which have been found in modern principles and approaches to integrated water management.
- The main task of the draft law is to establish legal basis for the implementation of integrated water management system.
- Integrated water management principles are most comprehensive and consistently reflected in EU water legislation.

The main provisions of the new draft law on Water Resources Management are:

- Water bodies and their associated rights
- Water Categories and their legal status provisions

Water protection requirements for water infrastructures and projects and exploitation

- Planning and management of water resources management and planning (planning and management system)

- Special water use rule (permit system).

Integrated management of water catchment basins and integrating watershed basins and integration of this system in the spatial-territorial planning system Since 2008, Georgia and other two South Caucasus countries - Azerbaijan and Armenia have been involved in the European Project for Trans-boundary Management of the River Mtkvari River Basin Management (Trans-boundary River - Mtkvari River Management), the main part of which is already completed (currently the second phase Going on) and which is the project of the European Union Under the leadership of the Geneva International Group and the three countries are engaged in cooperation with eco-experts.

For the adoption of legislation in the management of water resources in accordance with the Association Agreement with the European Union, the deadline is 4 years, which expires in September 2018.

The use of water resources in Georgia (irrigation, energy, water supply, industry, etc.) are regulated by relevant departmental structures that do not contribute to the rational use of water resources and the development of a single strategic plan of such use. Despite the abundance of the common water resources of Georgia, the modern state of Georgia dictates a new revision of water relations and water policy. Strict control of the use of water resources is necessary and the flow of water to be handled.

There are issues that do not clearly represent the competence of any agency and the management needs interconnection coordination. Therefore, in January 2017, the Intergovernmental Working Group on Maritime Issues was set up by the Government of Georgia for the purpose of determining the unified policy of the Government of Georgia in the maritime governance, the convergence of EU integrated maritime policies and the improvement of maritime governance in the country. The goal of the working group is to share the experiences of the EU, its member states and the Black Sea countries in the national policy. Namely: improvement of water quality of river water through pollution control; Balance between environmental and customer demands through regulation of water resources; Ensure effective protection of the population and property from floods and mudflows; Maintenance of fish species and promoting their reproduction in rivers and other water reservoirs; Surface water bodies and adjacent terrestrial amenities and development of recreational potential; Protection of wildlife, values and archaeological sites related to shallow water bodies.

International organizations have a great role in improving marine environmental management. Over the years several regional projects have been implemented with the participation of the EU, UNDP, Black Sea Commission and other donors and partners. The ongoing projects are particularly promising for the project "Improvement of the Black Sea Environmental Monitoring" (EMBLAS) with the EU funded and supported UNDP project. Within the framework of the project, in the years 2016 and 2017, leading experts from Georgia, Ukraine and EU countries have conducted joint research on the Black Sea, which will give Black Sea countries more information about the situation in the sea.

As for the prospects of development of "Blue Economy" in Georgia, the European Commission plans to set up a "Blue Economy Facility" mechanism for the Black Sea countries.

In our view, it is important that regional cooperation be developed in specific areas such as:

- Encourage an integrated approach to maritime issues, especially supporting the development of inter-sectoral initiatives;
- Planning of sustainable use of sea resources;
- Integrated Coastal Zone Management in accordance with ecosystem approaches;
- Encourage innovations in marine industry;
- Identify areas of interest in the Black Sea issues in the region in the context of EU Integrated Maritime Policy.

## **ISSUES OF CONCERN FOR THE IMPLEMENTATION OF "BLUE ECONOMY" IN GEORGIA**

### **Issue 1.**

About 70-80% of cargo handled in Georgian ports is transit purpose. At the same time, Azerbaijan uses only 40% of freight turnover through Georgia and only 20% of cargo turnover for the Middle East countries will be transported through Georgia ports.

Oil and oil products - 50-60%, bulk cargoes - 10-15%, chemical and mineral fertilizers - 10-15%, metals (including scrap) - 10%, other cargo - 5-10 %.

The reasons that hinder transit cargoes in Georgia, we have been divided into internal and external factors. External reasons include:

- Changing the conjuncture of the international market of transit transportation (increasing the share of the volume of container transportation, reduction of the volume of metal (scrap metal), etc.);
- Increasing international competition on the level of state and redirecting transit freight forwards to its competitive (mostly Russian) routes;
- Compliance with the National Transportation System and Transportation Service to develop a faster rate of transport infrastructure on international standards and competitive routes;

The internal factors include:

- Relatively low rates of development of Georgia's transport system;
- Low quality of transportation in the country. Low speed of transit transportation, technically obsolete rolling stock;
- Physical deprivation of basic capital, physical expenses of market infrastructure of transport infrastructure;
- The value of the border and customs service value at the border points of the country and the duration of service, the valuables on the border;
- The complexity of transit cargo procedure, the level of reliability of transit cargo losses;
- Inadequate activity of the country in relation to the international conventions of transit burden;
- Political and economic stability.
- Stability of the regulatory documents regulating traffic movement, mobility and traffic turnover compliance with Western standards;
- Flexible tariff policy and changes in competitive routes

Most of the listed internal factors have a systemic character.

The problem is that the ports are only one component of transit cargo service, along with the railway transports of the Georgian Railways and Motor Transport, Customs and Border Points, Roads and their bandwidth.

Effective ports in this cycle cannot fully achieve the final result, so the solution of the problem requires a complex approach and activation of the state transport policy, which should ensure coordinated and coordinated work of all participants in the transport chain. In

this regard, it is necessary to implement a common tariff policy and regulate them in common interests. A similar approach is a competitive transit route (Gula A2005).

The activities of the harbors' potential are directly related to the opportunities and prospects of development of the railway and motor roads, improvement of the socio-economic situation of the regions and the whole country, development of the transport and communication system of the state.

In the existing and perspective ports of Georgia, as the key points of the transport corridor, it is expedient to create free economic zones as they fully acquire the functions of "logistics-centers", or distribution companies.

Appropriate regulatory framework in port areas are currently established functions greatly expanded and they become not only a means of transport and the collecting-distribution centers, but also manufactured goods and other products of the commodity kind of employer-packing and distribution enterprises, processed goods production and distribution centers.

Taking into account the geographical location and transit function of Georgia as a whole, it is quite attractive to create a powerful terminal network of logistics centers not only in the coastal zone. From this point of view, the complexes in the free economic zones of Georgia (including ports) will have the opportunity to attract more commercially more profitable activities by attracting additional labor resources. This is a significant reserve for the Black Sea coastal regions and for the social and economic development of the country as a whole.

Depending on the value of ports for Georgia, the government offers different attractive conditions for private owners, including creation of free economic zones in the port, but these projects have not yet achieved the desired results. There are frequent cases of selling rights. For example, 80% of Poti Port shares were purchased from Arabian "Rakia" by Danish subsidiary "Maersk" subsidiary "Epibe Terminals" in 2011. It plans to invest 50 million in the current year, which is very little for the development of the port. (Poti New Port Project, 2010).

In the Caspian states, the production of carbon raw materials is being forced by the Georgian maritime ports, and the transport infrastructure to increase their capacity and ensure high competitiveness. Neighboring states are resorting to similar measures. The reconstruction and expansion works in Rize and Khopi ports are going on in Turkey. It is planned to increase capacity of these ports up to 150 million tons annually. Such tasks are facing the Black Sea Russia and Ukraine ports. At the same time, it is planned to work on modernization of the Turkey-Iran railway, through which it will be able to increase the volume of cargo shipments several times in this direction.

Georgia's transport system is also prepared to counter all the above mentioned, along with Azerbaijan's transport system. Azerbaijan is intensively pursuing the reconstruction and modernization of the railway, as well as the "fast railway" project implemented in Georgia as well. The Black Sea ports and terminals are developing, but the latter is still insufficient.

Georgia needs to focus on logistical approaches. Georgian maritime ports, railways and partially automated transport are composed of a single logistic chain, and logistical function is the most crucial information provision, ie the existence of a single database. There is no such information base today. Therefore, one of the tasks is to organize the Georgian logistics center.

Georgia's economic development forecasts, the volumes of carbon raw materials from the Caspian States, are compelled to increase port capacity. Accents should be made to build new capacities on the modernization of the original.

For the development of the marine infrastructure of Georgia, the state, along with other economic measures, is advisable to take part in the creation of a naval fleet. The maritime states in the world do not have their own maritime fleet (it doesn't mean here military ships, marine ports, bars and other sailing boats), so the state may acquire some ships. Despite the fact that the acquisition of marine vessels is associated with significant investment (the average waterfront cost is 80-100 million USD), it is highly profitable to purchase due to their high cost. Marine vessels are distinguished with high incomes, according to profitability, and their consumption time is durable.

Therefore, in our view, it is necessary to develop complex transportation of the Georgian transport system so that all types of transport - marine, rail, pipeline and pipeline - will be proportionally developed and it is important that the Georgian marine ports to become logistical chain organizers;

The marine ports of Georgia are distinguished by the lack of works, one of the main directions of the reduction is the method of planning craft processing in the harbors on the basis of linear modeling. This method of straightforward planning enables us to achieve the optimal utilization of cargo processing, to minimize the cost of cargo processing and determine the number of free time of berths, during which the harbors can be processed by other cargoes or other types of work.

Marine ports and terminals are required to provide comprehensive service of railway, motor and pipeline transportation. Consequently, the possible volume of cargo handling in ports and terminals should exceed the total capacity of the listed species of transport.

## **Issue 2.**

Fish trading is one of the most important sectors of the economy of Georgia. For the import of fish products from other countries, Georgia spent 35.4 million US dollars last year and export of the same products amounted to US \$ 11.2 million. Last year, Georgia exported 9.5 million tons of fish (foam). From 2010 till now fish is taken from Georgia, mainly in Turkey, Azerbaijan and Armenia. (National Statistics office of Georgia, 2017)

Today, 96% of the fish consumed in our country are imported, while the remaining 4% are local production. The state is obliged to elaborate the regulations that cherish the farmer. Many agro-credit or other kind of assistance is provided in this field, but we do not have any results because the assistance was inappropriate.

Specialists estimate that Georgia's geographical location and rich resources of water are a good condition for the development of fishing industry in the country, but the country has no strategy in this regard.

The five companies are: Iceberg 2 (24%), "Geoffice Company" (19.174%), "Paliastom 2004" (5.055%), "Mdm" (25% ), "Sea Products" (26.771%). They have the right to bring 20 vessels on the Black Sea, some of which are owned by these companies, and some are the ships that have been rented from the Turkish fleet. Additionally, another 33 Georgian seiner is carrying

Evachera in the Black Sea. Georgian license holder companies are obliged to provide them equal to 12% of the unused resources within the existing license. (Prangishvili I., 2017)

The EU is the largest trader of fishery and aquaculture products worldwide. According to the European Commission's 2016 report, EU consumers have spent 54 billion euros in 2015 to buy fishing and aquaculture products. As for the consumption of fats in the EU, the import of all categories of Anchos (including foams) 30,000 tons of EUR 188 million in 2015 was carried out.

The EU market will be opened for the Black Sea fish in 2017. It enables the DCFTA with the EU to agree on all types of customs fees for goods exported from Georgia to over seven thousand goods.

Fish firms in Georgia are preparing fish flour and small quantities of fish oil for export. One of the major obstacles to their activities is the Georgian harbors, which require infrastructural changes for unloading large amounts of freight. 10-15 tons of fish must be downloaded within 3-4 hours to avoid damaging. There are about 50 people working there, but there is no place.

The Ministry of Environment Protection of Georgia issued a new license to the firms licensing firms last year - employing local staff in the fishing process. From next year, each license holder must ensure that at least 30% of fishermen employed in the fishing process in 2018-2019 are citizens of Georgia with relevant education, 2019-2023 years of such staff should be no less than 50% and 2023 - not less than 80%. That is why it is important to invest in human resources to increase the value of the seafarers' quality certificates in Georgia on the international labor market. In this regard, Georgia is implementing bilateral cooperation projects with various leading maritime states around the world.

For the fermentation season, the amount of fish caught on the vessels will be recorded in the electronic journal, which connects to the Internet base and will be reflected there. Until now the fishing data on the ship was fixed on the sheet.

The electronic system will simplify the case. Let's say, on the ship has a 2000 tone ceiling, the government will know every day how much it is approaching the ceiling. Violations are still under control on the ship.

### **Issue 3.**

Aquaculture is a great issue of concern in Georgia. The fish species are rich in the Black Sea (52 species of fish), as well as Georgia's internal waters (rivers, lakes, water reservoirs and water reservoirs), where 71 species of fish are based on fishbase, one of the largest fish base in fish.

For the development of aquaculture, the Ministry of Agriculture has started since 2015 studying the country's potential. The document, together with the description of all the reservoirs and the river, would have provided opportunities for the development of aquaculture before the end of the year. However, the work has not yet been completed.

The Ministry does not have exact statistics on how many fish farms are there in Georgia. There are more than 400 fish species in the country, and if we look for small individual entrepreneurs, this number may increase to 800. According to FAO, UN Food and Agriculture Organization, fish farms in Georgia are in poor condition - there is a lack of finances and management skills.

Local fishermen have difficulty in getting rid of spawning and fishing rules, which often lead to lipstick. Problems related to fish-keeping rules have demonstrated that it is necessary to provide them with agrarian expansion and offer innovations.

#### **Issue 4.**

In order to eradicate crisis in separate sectors of economy, the role of state regulation of economy is the greatest. The Government of Georgia, using the most widely recognized state regulation system, does not use most mechanisms in practice. So far, macro economic governance of Georgia is not characterized by efficiency. Without it, it is impossible to create a successful enterprise and business environment. If the results of the functioning of specific enterprises are largely determined by the enterprise managers and local factors, when it comes to economic collapse or the falling economy of one of its branches or regions, this indicates no effectiveness on management at the level of macroeconomics. One of the major findings of the macroeconomic problem is determined by the applicable tax legislation and the tax environment established on its base.

The tax system of Georgia may be characterized as a disproportionate, non-referenced, strict system, as it does not imply the taxation of the tax rates depending on the sectors and sectors of the economy. Improvement of the tax environment will make the investment environment even more attractive. The volume of attracted investments in maritime infrastructure will also increase.

Because of losing confidence, foreign currency demand is higher than the interbank currency exchange rate. This gives the basis for large-scale speculation, which reduces the currency reserves of the state and has been badly affected by the lending of enterprises. Consequently, these processes affect Georgia's maritime economy. The Georgian navy counted 85 ships after the collapse of the Soviet Union. Most of them were intended for transportation of dry cargoes, but it included passenger lanes and tankers. The instability of money in Georgia and the unacceptable investment environment along with subjective factors led to the gradual alienation of the Georgian navy abroad and finally disappeared. At present no structure in the country and its jurisdiction does not have a marine vessel. Moreover, none of the ships are flying in the world waters in Georgia's flag.

Securities exchanges do not cite firms in the maritime infrastructure of Georgia, which negatively affect their financial support. In the case of normal operation of the stock exchange, it is one of the main sources of lending and efficient enterprises. The amounts sold by the value of the shares sold to industrial enterprises, which are essentially the development perspectives, are due to the existence of the market on the grounds that monetary funds will be used to replenish the main capital resumption.

The essential attribute of the market infrastructure, which has a significant role in development of marine infrastructure, is labor exchanges. In Georgia such exchanges are functional, but their authority is very low in the population and job seekers.

The commercial banks will provide loans for most of the short term operations with greater guarantees, so the companies will not be able to provide banking services, especially long-term credit financing, and thus they are binding on the financial capabilities of their founders. This will negatively affect their entrepreneurial activity. The financial market of Georgia is one of the most risky markets in the world, therefore credits issued by the existing commercial banks are characterized by high interest rates. This prevents industrial enterprises



in efficient way. The role of the state is great in improving the financial-credit system. It can and should achieve the universal system of the system.

### **Policy priorities and actions needed for moving Georgia into a blue economy**

Transitioning to a blue economy in the Georgia will require policies that treat the Black sea as a unique “development space,” shaped by its ecology. Such polices would be developed through marine spatial planning that generates maps to categorize sea area for particular uses. One barrier to development of blue economy policies is the fragmented nature of governance in the Georgia.

The current state of play in the Georgia suggests a number of interrelated priorities for policies that could carry the country toward a blue economy:

Develop and strengthen regional and national policies to better integrate the governance framework for the Black Sea. Clear, coordinated mechanisms for integrated coastal management, implemented across relevant sectors such as fisheries, tourism, transport, energy, and environment will be essential to resolve these conflicts. With regard to tools, coastal and marine special planning is particularly important for establishing geographical zones of sea uses within a given area and for protecting ecosystems.

Implement policies for a healthy, resilient, and productive marine environment in Georgia.

Policies should explicitly reflect the principle that both the general economy and the livelihood of coastal communities depend on the health of the sea. For Black Sea countries, associated biodiversity is of particular importance to tourism and fisheries.

Provide education and raise awareness about the blue economy. Many Black Sea states have chronic gaps in the skills of marine research, planning, and decision making. Professional training programs will need to shift gears to meet this demand. In the population at large, basic education about the sea’s role in future prosperity will raise awareness and create political will for the needed change.

In addition, the recently launched Erasmus+ programme for 2016 includes several initiatives of interest to Blue Economy stakeholders. For instance Sector Skills Alliances aim to create European partnerships between industry, vocational and educational training institutes and regulatory bodies to define skills needs in a specific sector and to design and implement new curricula accordingly. Other Knowledge Alliances target higher education and aim to boost the relationship between industry and universities.

Ensure maritime surveillance, monitoring, and enforcement. In many countries, illegal fishing by neighboring states is a key concern. Black Sea states need enhanced capabilities for identifying threats to their maritime space in a timely manner. They will achieve these by sharing and integrating intelligence, surveillance, and navigation systems into a common operating picture. Regional cooperation on these issues will optimize limited resources.

Build the infrastructure for a blue economy. Improved coastal and port infrastructure is a critical asset for economic growth and development in Black Sea states, especially, in Georgia. Once constructed, it must be protected, notably from flooding and sea surges, given its frequent siting near sea level. Fortifying these assets can be expensive; a more affordable

approach often involves restoring natural barriers to reduce the hazards of flooding and erosion.

## **CONCLUDING REMARKS**

Urgent support needed towards research and development for the implementation of a blue economy. At present, Georgia suffers from a general lacking of data related to its water resources including seas. Black Sea states would do well to buttress their own data collection and also to access the hydrographic/bathymetric surveys, biological samplings, and environmental characterizations conducted by the numerous international research vessels that cross Black Sea.

Support business development and sustainable finance. Georgia needs policies to promote investment in existing blue economy enterprises and in new ones. In the Georgia the greatest potential for value addition and job creation may be in small- and medium-sized enterprises within the blue economy value chains. Finance for start-up, capacity growth, and technology development will be crucial for these firms.

Based on the existing scarce data and on our study of the situation regarding blue governance of marine sector in Georgia, we think, that Georgia should build its interventions on three pillars: 1. Governance: Reform policies, build public sector capacity, align economic interests with long-term sustainability, and promote conditions that encourage business growth in a sustainable seafood sector. Public-private dialogue, stakeholder inclusion and strategic partnerships with donors, technical expertise, the private sector and clients help shape the fisheries agenda and position fisheries as central to today's development challenges – poverty alleviation, climate change, and food security. 2. Science and data: Generate state-of-the art scientific knowledge to inform sustainable fisheries and aquaculture policy and investment. Predictive analytics, technical assistance and financing to leverage investment in fisheries 3. Markets and finance: Reduce waste, improve fish value chains, increase market access, and drive new investment opportunities in sustainably managed fisheries and aquaculture through innovative financing mechanisms. This brings together public and commercial finance, philanthropic capital and private equity to invest cooperatively in projects that create jobs, grow local economies and generate positive social impacts to scale up sustainable solutions in the fisheries sector.

Proposed approach to begin the transition toward a Georgian Blue Economy: improve the statistical and methodological base for measuring the scale and performance of the marine economy; establish natural capital accounts for the black sea at the national and regional levels; create and expand integrated approaches to black sea governance; apply marine spatial planning at the scale of exclusive economic zones; invest in restoration and maintenance of the function and integrity of critical marine ecosystems; build and strengthen the institutional and human capacity to act; advance key infrastructure investments, continue to enhance knowledge of the black sea; expand maritime domain awareness of the black sea; track key indicators of the transition to a blue economy.

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