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**“Policies and instruments of international cooperation for the preservation of the Adriatic Sea”**

Welcome to all participants. I will talk about the collaboration in the Adriatic Sea in terms of a number of on going scientific projects.

The scientific collaboration in the Adriatic Sea has always existed given that studies about the sea are virtually impossible if there is not cooperation amongst countries that share the same sea. Such collaboration has been intensified in the last few years, especially for projects such FB 6, FB 7 and Interreg.

The Interreg III A Requisite Project – in this project we study negative environmental impacts on the Adriatic Sea. Amongst these, phenomenon like mucilage gets special attention, especially in the North Adriatic area. Such phenomenon damages the economies of sectors like fishery and tourism quite badly.

These slides show the consequences caused by the mucilage and which can cause the death of some marine organisms on the sea bottom, especially the static ones. As part of this project we study the eutrofization. These are all the eutrofization subdivisions and the correlated consequences - i.e. Hypoxia which is the disappearance of the oxygen with the consequent death of fish and other organisms.

In the Adriamed and Nascum projects that are funded by Interreg funds, we examine and try to construct a monitoring system of all economic and oceanographic data that could provide the basis for oceanographic forecast. Adriamed is funded by FAO and is a project of special interest because it consists of monitoring some specific pelagic species – such as the small blue fish – and demersal resources that have greater value in commercial and economic terms.

Within these two monitoring processes, we have been provided with the data regarding the small blue fish for the Italian and Croatian sides. Such data is then analysed together and an assessment of the available stock of small blue fish can be made. This assessment includes also some evaluations regarding the stock availability of some demersal resources such as merluccius merluccius (cod), nephrops norvegicus (shrimp) e mullus barbatus (goatfish). These evaluations are important in order to establish future measures for the preservation of the Adriatic Sea.

We have data from the Split Oceanographic and Fishery Institute for the year 149/1950 when the biggest oceanographic campaign of all time was carried out in the Adriatic Sea - the “Hvar” campaign. It is believed that this data represents the original condition of fishing in the Adriatic. From a comparison of this data with the current ones gathered for the EU project Medits, it emerged that clear variations have taken place during these years, especially regarding fish stocks in the Adriatic. In particular, the main variation occurred to cartilaginous fish as they are a particularly sensitive species over the long term. These variations allow us to observe the negative effects that inappropriate measures have caused, leading to the impoverishment of the sea life. Above all, the impoverishment is not in terms of the quantity of total biomass but mainly in terms of modification of its structure. This has caused greater damage to commercial species and smaller effects on other species.

Adricosm is the projects carried out between Italy and Croatia which studies the currents on the coastal areas. More precisely, complex models of currents that have particular importance in case of accidents or petrol spills, are studied and elaborated.

These models allow us to follow and observe the movement of water mass and therefore, allow us to make decisions regarding possible intervention to prevent water pollution.

Eace is a similar project that also analyses the currents near the coast and the distribution of the water mass that originate from the East Adriatic and move all around the sea.

The goal of all these projects that analyse the water currents is the creation of models which could help to mitigate the consequences of accidents occurring in the Adriatic Sea.

The Sesam project is an FP 6 project which Italy, Croatia, Slovenia together with a number of countries from the Mediterranean Sea and Black Sea all take part in. By using data covering the last 50 years, this project tries to identify the changes occurred in this period of time and to foresee the changes that could occur in the next 50 years, and how the Mediterranean and Black Sea ecosystems would react to them.

The entire Sesam project is based on data coming from the Split Oceanographic and Fishery Institute database, given that 80% of all data related to measurements done in the Adriatic Sea is stored in there.

In these slides we can see the negative trend recorded in terms of water transparency in the period between the 50s and today. These trends regard the primary production, even though not for the Mediterranean Sea, which give us a representation of the changes occurred in other seas. As I have already said, the Sesam project will analyse the changes which have occurred in the last 50 years in the Mediterranean and Black Sea.

The Aia project is the new Interreg which Italy and Croatia are particularly interested in. It is an initiative that intends to characterise areas on the Croatian side that contain natural cultivations of shellfish in order to be able to transfer them on the Italian side.

These slides show the Adriasafe project which studies the toxicity of shellfish, considering that the toxicity analysis is a base requirement for their export to foreign markets. Such analyses are carried out together with Italian partners by trying to create a shared database. There is also the representation of the major problems encountered in different parts of the Adriatic Sea. Amongst those, the most serious problems are encountered in the North Adriatic area.

There is another project whose intention is to declare the Adriatic an area of high sensitivity so that special protection measures (stricter and based on set criteria) can be enforced. Worldwide, there have been areas that have been recently declared very sensitive. The Adriatic should ask to be one of those as it meets all the requirements. All Adriatic countries should jointly fight to protect their sea from possible ecological disasters by adopting stricter measures.

In truth, the results obtained from the majority of these projects could represent the basis for the Adriatic legislation that should be shared by Italy and Croatia. A part of this legislation is currently based on the experience of some Northern European countries that is not completely suitable for the Adriatic Sea. The Adriatic countries should instead work together to create their own legislation.

In conclusion, I would like to present the Caos project – Coordinating Adriatic Observing System – that has been proposed in order to create a Mediterranean system, a common initiative. In truth, Italy, Croatia and Slovenia are already part of a system but it would be advisable for other countries to join this shared monitoring system too.