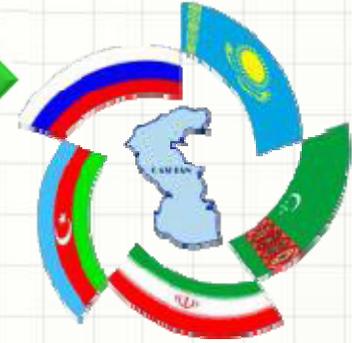


Sustainable Development of the Caspian Macro Region



Introduction: Opportunities



- ❑ the great idea of joint cooperation of universities in the Caspian region has been implemented since 1996. Currently, 55 universities and scientific research institutes in the region (Azerbaijan, Iran, Kazakhstan, Russia, Turkmenistan) are coordinated.
- ❑ The union has been a platform for the development of joint projects, which has so far operated in the form of scientific conferences, webinars, publication of scientific articles, thematic olympiads, creative festivals, environmental campaigns, sports competitions for faculty and students, etc.

Introduction: Opportunities

- ❑ The Caspian Sea is the World's Largest lake where has more than 1200 km coast line and 371 km² area.
- ❑ The Caspian Sea has valuable Fish, Oil and Gas resources.
- ❑ Rich cultures, multiple ethnicities, and many cultural shares
- ❑ Numerous universities in the fields of Humanities, Science, engineering, Agriculture and Medicine



Introduction: Threats

- ❑ There is a lot of threat on the Caspian sea, its environment and basin which could be summarize as:
 - ✓ Water pollution by Industrial waste & municipal sewage
 - ✓ Oil pollution caused by extraction of oil form Neighboring countries.
 - ✓ Decline of Valuable Fish Resources such as Sturgeons
 - ✓ Increase water demand because of development of agricultural land, urban and industrial purposes.



Research priorities in the Caspian Sea region

- ❑ Sustainable exploitation of marine living resources
 - ❖ Establish communication between researchers, relevant government organizations and the exploiting communities, interact on sustainable exploitation policies and strategies, and develop mechanisms for monitoring and conservation of biodiversity in the Caspian Sea region according to the standards of the International Conservation Union. Nature (IUCN), the implementation of joint projects to achieve a unified policy in the exploitation of shared living resources and scientific synergy through the publication of scientific documents will be instrumental.

Research priorities in the Caspian Sea region

- ❑ Sustainable exploitation of marine living resources
 - ❖ Proposed guidelines for achieving sustainable exploitation of Caspian Sea living resources proposed in the framework of joint projects between the Caspian region states include ecosystem capacity-based exploitation, protection of habitats and endangered species in the Caspian Sea region through Sustainable management, revitalization of the Caspian Sea assessment program and joint research tours, aquatic biodiversity and their use, pollution and its effects on aquatic life and the international consensus of Caspian region countries and states on aquatic diseases with emphasis on prevention.

Research priorities in the Caspian Sea region

□ Sustainable aquaculture using emerging approaches

- ❖ Given the role of aquaculture and the significant share of seafood in the world worth \$ 125 billion, this sector is of great importance in the supply of animal protein and employment. In order to achieve the desired, the context of the "Blue Revolution" is needed to address the environmental and human problems caused by the implementation of aquaculture projects such as water pollution and ecosystem destruction, the positive role that this sector in maintaining aquatic biodiversity. Special attention was paid to the restoration of endangered species through the restoration of reserves and species.

Research priorities in the Caspian Sea region

- ❑ Sustainable aquaculture using emerging approaches
 - ❖ Intelligent development of sustainable aquaculture by completing the process of aquaculture and emphasizing sustainable development through ecological management and integrated conservation programs that reduce the pressure on marine resources, is another area of sustainable aquaculture. These development programs will also lead to the revitalization and increase of habitats, the implementation of research and technology development, and the increase of education and public awareness about the environment, which can play an important role in sustainable development

Research priorities in the Caspian Sea region

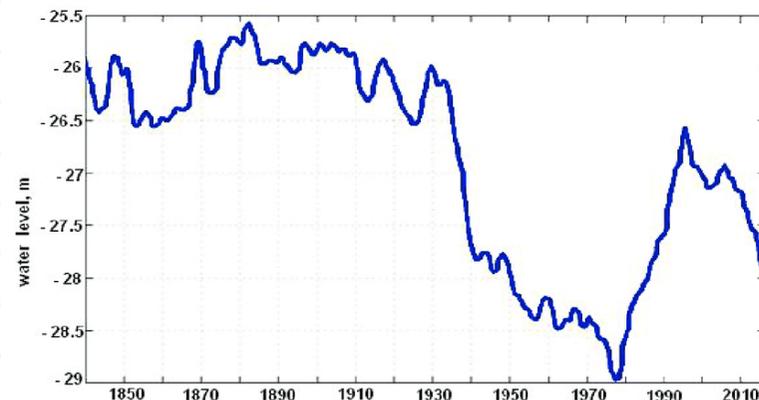
❑ Sustainable maritime transportation

- ❖ Observance of environmental protocols regarding the water balance of ships, facilitating and accelerating the entry and exit of goods to ports by implementing maritime conventions, preparing an international map of responsible waters to facilitate navigation and increase safety, production of maritime charts in the National Hydrographic Committee, creation Smart ports and the expansion of face-to-face shipments in the Caspian Sea are among the issues that can be considered in the direction of sustainable maritime transport due to the existing restrictions on the entry and transit by land in the neighboring countries. To be placed.

Research priorities in the Caspian Sea region

❑ Global warming and water level monitoring

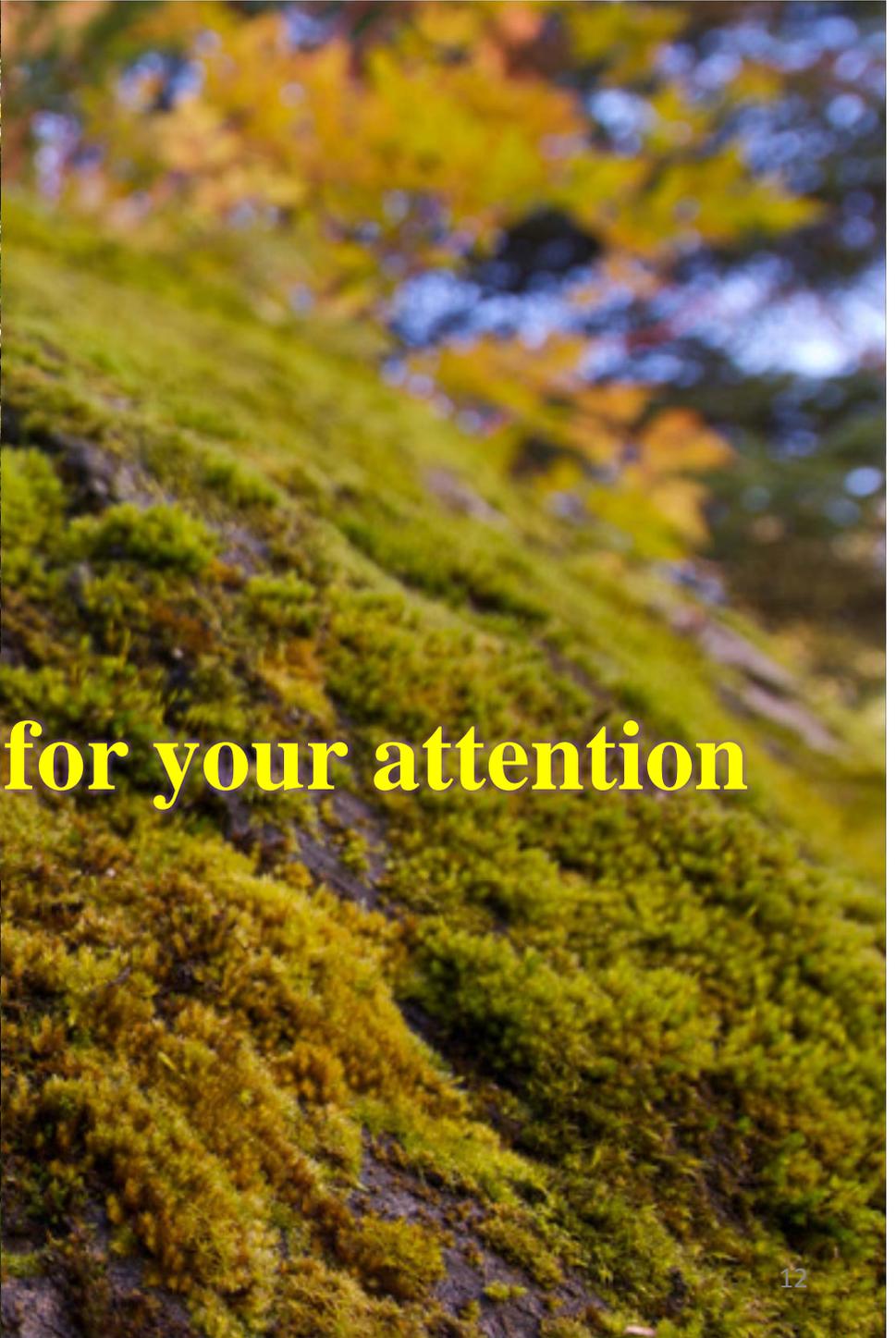
- ❖ Climate change and global warming is a big and very serious treat for water resources and water body such as Caspian Sea. In recent years, we have an experience a decline trend in the Caspian sea level. Some wetland and costal area endanger of this phenomena. Keeping this trend could lead to disaster in costal line of Caspian sea.
- ❖ Monitoring temperature, precipitation, snow cover in the Caspian sea basin along integrated network of hygrometry sations of related river is big step to monitoring and forecasting water level variation of the Caspian sea.



Research priorities in the Caspian Sea region

□ Financial support

- ❖ We are now in a new position. As mentioned, this situation requires many efforts and financing. In order to finance joint projects in these areas, which can be done as bilateral or multilateral projects, it is necessary to establish a financial support fund with the participation of the Ministries of Science in the member countries of the Union, which each year will provide the necessary funding for joint projects. It is more tangible than before.
- ❖ Without such funds, achieving the stated goals will not be the possible. It is also suggested that specific research activities such as joint projects, seminars and workshops, as well as the writing and publishing of magazines and books on the Caspian Sea be planned and implemented in the Union's research committee.



Thank you for your attention