

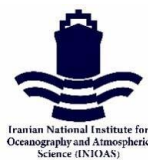
# Activities of Iranian National Institute for Oceanography and Atmospheric Science on the occasion of World Oceans Day 2021

## Report

- Coastal monitoring in north and south coasts of Iran
- Beach cleanup activities in north and south coasts of Iran
- Organizing virtual ocean literacy webinars for school teachers
- Organizing a semi-virtual workshop on marine data and information for sustainable development
- Holding the meeting of the Iranian National Committee for Oceanography of the Iranian National Commission for UNESCO on World Oceans Day

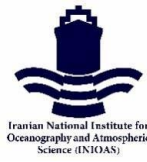


**Iranian National Institute for Oceanography and Atmospheric Science**  
**Tehran, Islamic Republic of Iran**  
**June 2021**



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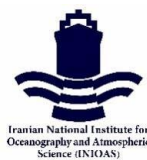


## Background

Oceans cover more than 70% of the planet, produce at least 50% of the world's oxygen, are home to most of the Earth's biodiversity and are the main source of protein for more than a billion people. They also absorb about 30% of carbon dioxide produced by humans, suppressing the earth warming trend.

The concept of a World Oceans Day was first proposed in 1992 at the Earth Summit in Rio de Janeiro as a way to celebrate our world's shared ocean and our personal connection to the sea, as well as to raise awareness about the crucial role the ocean plays in our lives and the important ways people can help protect it. In 2008, 8 June was officially designated as World Oceans Day, with a different theme each year. World Oceans Day is an opportunity to raise global awareness of the benefits humans get from the ocean and our individual and collective duty to use its resources sustainably. It is also a chance to celebrate and appreciate what the ocean provides, from the oxygen we breathe to the inspiration it provides artists.

UN World Oceans Day theme of 2021, 'The Ocean: Life and Livelihoods', will shed light on the wonder of the ocean and how it is our life source, supporting humanity and every other organism on earth. The UN global celebration on 8 June brought together thought-leaders, celebrities, institutional partners, community voices, entrepreneurs, and cross-industry experts to showcase the biodiversity and economic opportunity that the ocean sustains. A global call for citizens to explore and learn about our reliance on ocean resources, how the ocean is



changing, and what we can do to create sustainable and inclusive livelihoods, for the ocean and all who depend on it to thrive.

## Purposes

Within the framework of UNESCO Tehran Cluster Office (UTCO) activity on “Strengthening the national capacities of the four countries of UNESCO, Tehran Cluster Office in developing sustainable water policies and water development acts”, focusing on the major program of UNESCO on Natural Sciences- Main Line of Action 3 “Improving Knowledge and Strengthening Capacities at all levels to achieve Water Security”, UTCO supported the Iranian National Institute for Oceanography and Atmospheric Science (INIOAS) that Regional Education and Research Centre on Oceanography for West Asia (RCOWA) under the auspices of UNESCO is located in and operated by INIOAS , to carry out the following activities on the occasion of World Oceans Day 2021.

- I. A series of virtual ocean literacy webinars for school teachers in coastal provinces in southern Iran (Khuzestan, Bushehr, Hormozgan, Sistan and Baluchestan);
- II. Specialized virtual workshop on marine data and information, oceanic forecasts and their role in sustainable development by inviting experts from marine institutes and agencies;
- III. Symbolic practice to clean the beaches by INIOAS stations in north and south coasts of Iran in cooperation with NGOs (Chabahar, Bandar Abbas, Bushehr, Nowshahr);
- IV. Carrying out a small activity in monitoring the oceans and coasts, including simultaneous measurement at four points in the north and south of Iran and monitoring the health status of coral reefs in Chabahar Bay;
- V. Hold the meeting of the Iranian National Committee for Oceanography on this day. Committee members present their plans for the UN decades of Ocean Science for Sustainable Development.

The submitted outlines of the activities and final agenda of the webinars can be found in [annex I](#).



## Activities

On the occasion of World Oceans Day, Iranian National Institute for Oceanography and Atmospheric Science carried out various activities to improve general and specialized knowledge about the oceans at the levels of public, school teachers and marine experts, to raise awareness about the crucial role the oceans and marine environments play in our lives, and the important ways people can help protect oceans and marine ecosystems. The following is a report of activities performed in 5 different categories.

### I) Virtual ocean literacy webinars for school teachers in coastal provinces in south of Iran

Considering the importance of promoting oceanic and marine sciences, especially in the UN Decade of Ocean Science for Sustainable Development (2021-2030), 4 virtual webinars entitled ocean literacy for school teachers, with the focus on the Persian Gulf and Gulf of Oman were organized for teachers in four coastal provinces in the south of the country, including Khuzestan, Bushehr, Hormozgan and Sistan and Baluchestan, during May 30 to June 2, 2021. Through these workshops, concepts of geological, chemical, biological and physical oceanography were introduced to teachers and the status of the Persian Gulf and the Gulf of Oman was discussed in terms of oceanography, environmental science and climate change.

The four-day workshops were held as follows:

*Table 1 Program of the online workshops on ocean literacy for school teachers (The Persian Gulf and Gulf of Oman)*

Online Workshops on Ocean Literacy for School Teachers (The Persian Gulf and Gulf of Oman)		
Location	Time	Resource persons
Khuzestan Province	May 30, 2021 14-16:45 PM	B. Abtahi, H. Lahijani, A. Saleh
Bushehr Province	May 31, 2021 14-16:45 PM	B. Abtahi, H. Lahijani, A. Saleh
Hormozgan Province	June 1, 2021 14-16:45 PM	B. Abtahi, H. Lahijani, A. Saleh
Sistan & Baluchestan Province	June 2, 2021 14-16:45 PM	B. Abtahi, H. Lahijani, A. Saleh



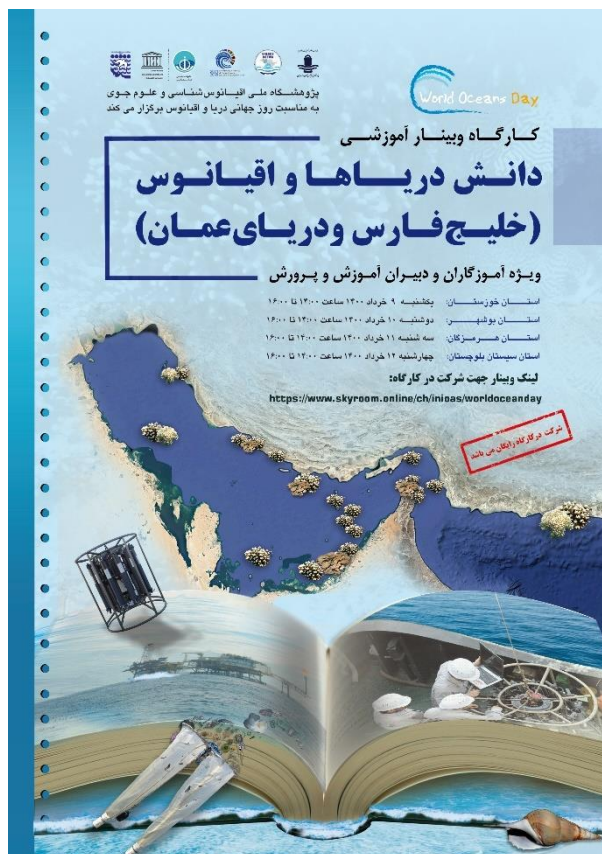
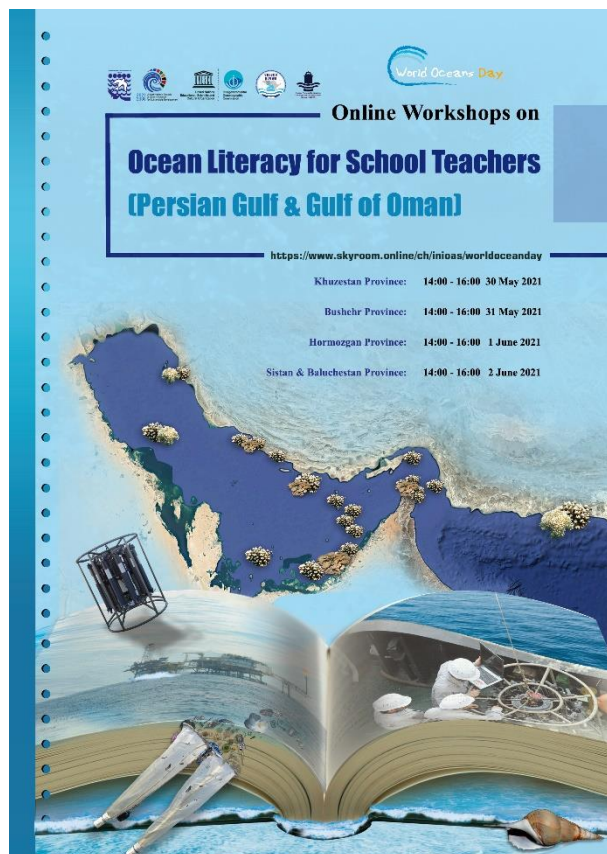





Figure 1 Announcement posters for the 4 virtual webinars entitled ocean literacy for school teachers, with the focus on the Persian Gulf and Gulf of Oman

Through these virtual training workshops, Dr. Behrooz Abtahi (Director of INIOAS), Dr. Hamid Alizadeh Lahijani (Deputy for Research and Technology of INIOAS) and Dr. Abolfazl Saleh (scientific director of the RV Persian Gulf Explorer) spoke to school teachers. After each presentation, questions asked by teachers were answered by corresponding presenters. About 1000 teachers participated in these educational webinars (see annex II).

The topics discussed by the presenters in the lectures were as follows:

Table 2 Topics discussed by the presenters in the virtual webinars entitled ocean literacy for school teachers

	Discussed topics
	<b>Dr. Behrooz Abtahi</b>
	<ul style="list-style-type: none"> <li>Importance of oceans for human (health, nutrition, economy, ...) and the related gap of knowledge.</li> <li>UN Decade of Ocean Science for Sustainable Development (2021-2030)</li> <li>Introduction of the Iranian National Institute for Oceanography and</li> </ul>

	<p>Atmospheric Science (departments, centers, activities and facilities)</p> <ul style="list-style-type: none"> <li>• The Persian Gulf ecosystem (mangroves, coral reefs, turtles and fishes)</li> <li>• Oceanic and marine pollution: sources and consequences (persistent organic pollutants (POPs), heavy metals, radioactive pollutants, nutrients, marine litters, plastics and microplastics, oil spills)</li> <li>• Eutrophication and acidification of marine environments</li> <li>• Overfishing and destruction of coastal and marine habitats</li> <li>• Invasive species</li> </ul>
	<p><b>Dr. Hamid Lahijani</b></p> <ul style="list-style-type: none"> <li>• Introducing the Persian Gulf and Gulf of Oman (history of formation, geography, morphology, bathymetry, bottom sediments, ...)</li> <li>• Climate of the area (Persian Gulf, Gulf of Oman and Northern Indian Ocean)</li> <li>• Long-term sea level changes and the effect on the Persian Gulf and Gulf of Oman and human migration routes during the last Ice Age</li> <li>• Different types of sea currents, currents in the Persian Gulf and Gulf of Oman</li> <li>• Waves and wind regime of the Persian Gulf and Gulf of Oman</li> <li>• Marine hazards of the Persian Gulf and Gulf of Oman (storm, meteotsunami, heat waves, coastal currents, tropical cyclones, tsunami, heavy rains)</li> <li>• Law of the sea (zones and boundaries in seas and oceans)</li> </ul>
	<p><b>Dr. Abolfazl Saleh</b></p> <ul style="list-style-type: none"> <li>• Seawater composition (salts, nutrients, dissolved gases)</li> <li>• Physical properties of the Persian Gulf and Gulf of Oman (Currents, temperature, salinity and water structure)</li> <li>• Nutrients and eutrophication in the Persian Gulf and Gulf of Oman</li> <li>• Ocean acidification (status of the Persian Gulf and Gulf of Oman)</li> <li>• Deoxygenation of oceans and marine environments (status of the Persian Gulf and Gulf of Oman)</li> <li>• Climate change effects on the food chain of the Gulf of Oman</li> <li>• Possible measures and solutions to prevent or reduce the effects of climate change (e.g., acidification and deoxygenation) in the Persian Gulf and Gulf of Oman</li> </ul>

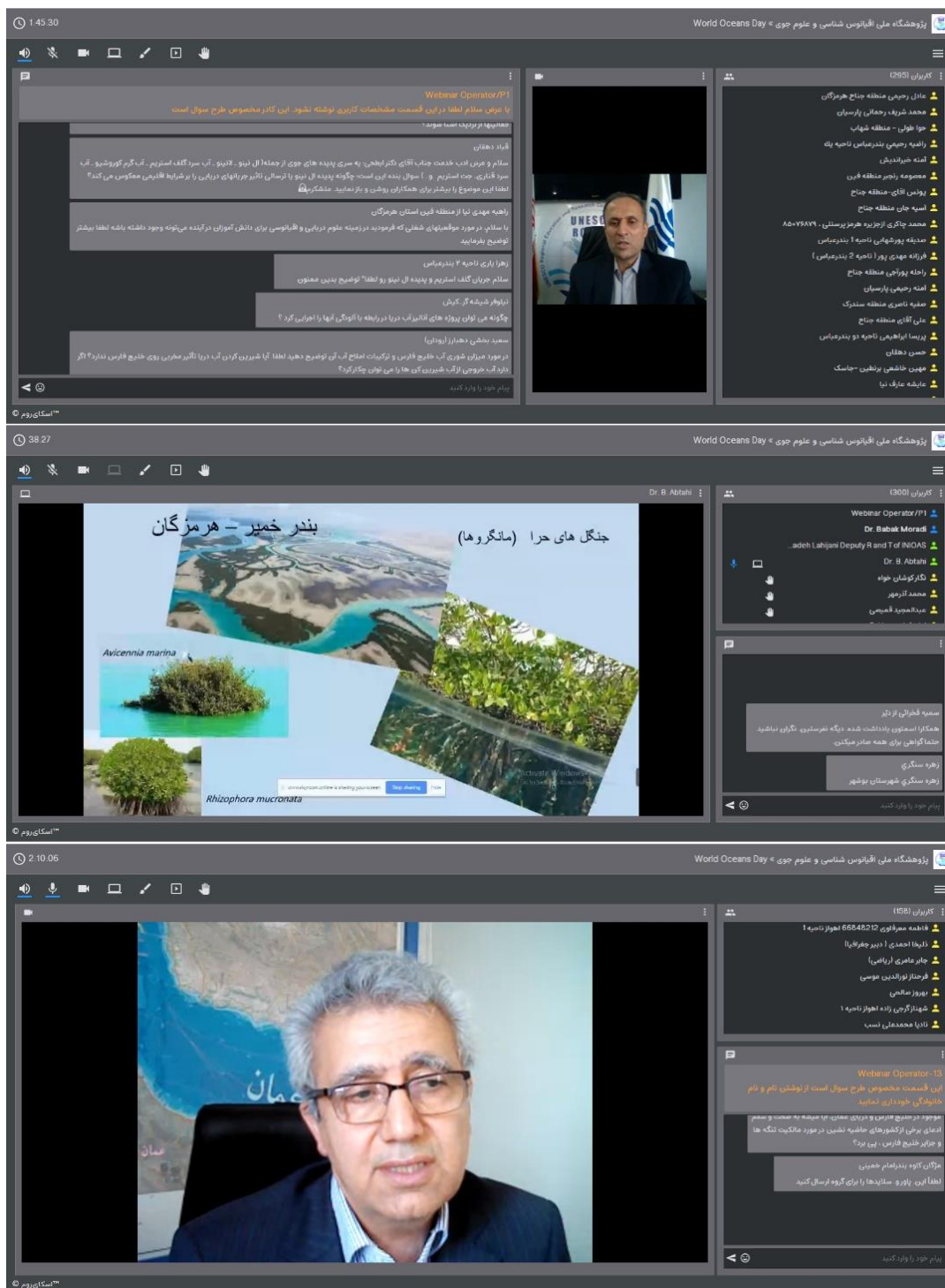


Figure 2 Photos of the virtual ocean literacy webinar on the occasion of World Ocean Day 2021, INIOAS



## II) Virtual workshop on marine data and information, oceanic forecasts and their role in sustainable development

The semi-virtual specialized meeting entitled "Iranian distributed marine data and information for sustainable development" on the occasion of the World Oceans Day and the Decade of Oceanic Sciences for Sustainable Development (2021-2030) was held on June 7, 2021 by Iranian National Institute for Oceanography and Atmospheric Science.

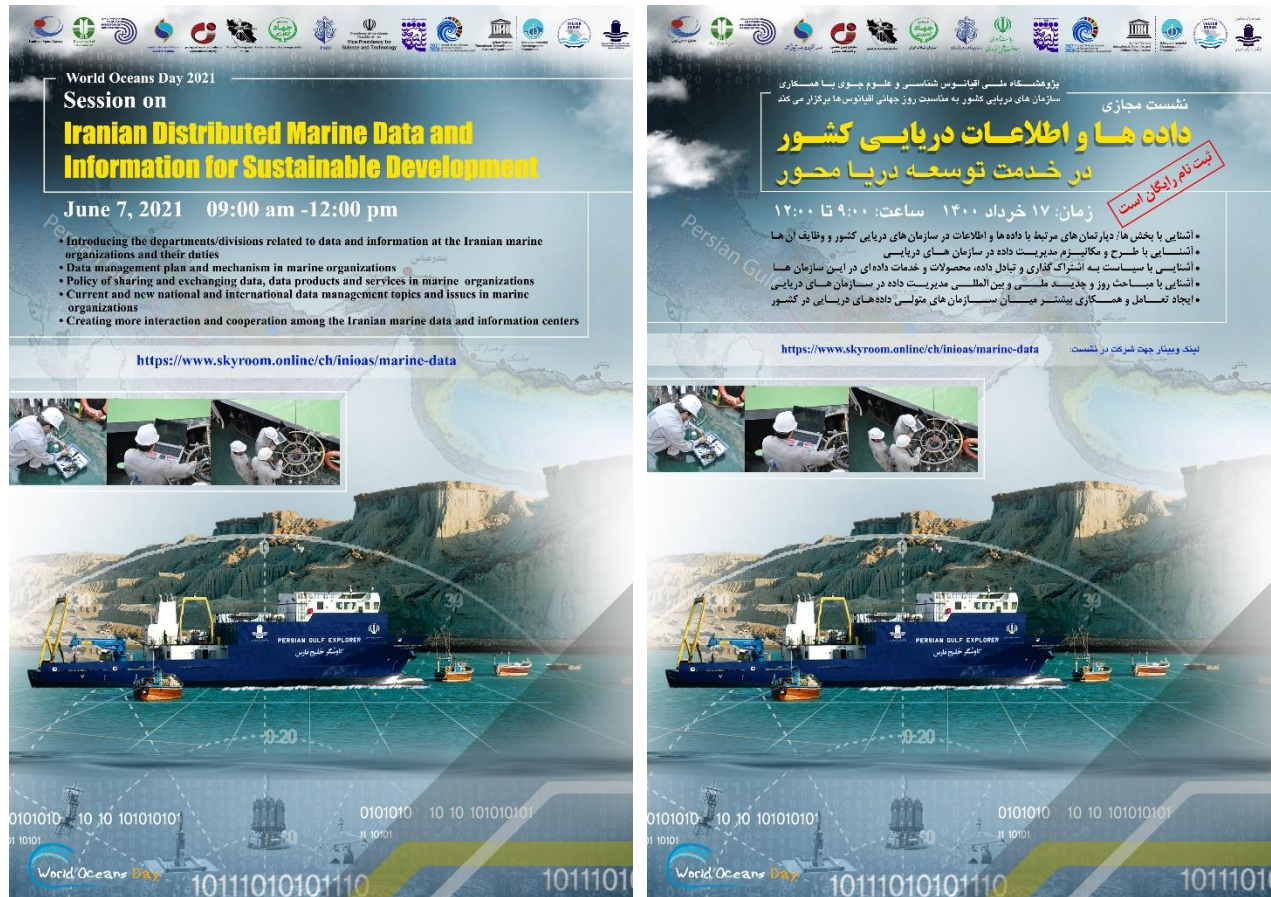
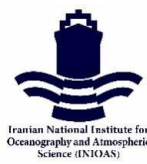


Figure 3 Announcement posters for the semi-virtual specialized meeting entitled "Iranian distributed marine data and information for sustainable development" on the occasion of the World Oceans Day

The focus of this meeting was to create more interaction and cooperation between organizations in charge of marine data and information in the country, to introduce the departments related to data and information in marine organizations and their tasks, their plans and mechanisms of data management, their data sharing and exchange policies, and their data products and services. Current and new national and international topics on ocean data management were also discussed.



In this meeting, 11 experts from different marine institutes and organizations gave speeches, of which 7 speakers were present in the assembly hall of the INIOAS and 4 speakers presented their materials virtually. Representatives from Iranian National Center for Ocean Data (INCOD-INIOAS), Vice-Presidency for Science and Technology, Department of Environment, Iranian National Cartographic Center, Iranian Fisheries Science Research Institute, Iran Space Agency, Iran Meteorological Organization, Geological Survey and Mineral Explorations of Iran, Iran Fisheries Organization, Ports and Maritime Organization, and National Geographical Organization of Iran presented their marine database and their data sharing policies to help the country's sustainable development.

At the end of the session, Dr. Hamid Lahijani wrapped up the meeting and issues raised and expressed hope that this semi-virtual meeting could be effective in promoting cooperation and synergy in the field of ocean information and data management between marine organizations, and facilitate the achievement of a sea-based sustainable development.

About 65 people participated in this one-day virtual workshop ([see annex III](#)).



Figure 4 Photos of the semi-virtual meeting entitled "Iranian distributed marine data and information for sustainable development" on the occasion of World Ocean Day 2021, INIOAS



### III) Symbolic practice to clean the beaches

Marine litter, the majority of which is plastic, is one of the most pressing global environmental challenges impacting the planet. One way coastal communities respond to this challenge is through the environmental stewardship practice of volunteer beach cleanups. Ultimately, participatory beach cleanup events can engage a community, increase awareness toward an environmental issue, foster a sense of responsibility for a place of value, all supporting a conservation initiative throughout a community. On the occasion of World Ocean Day, symbolic practices of beach cleanup were performed in Nowshahr, Bushehr, Bandar Abbas and Chabahar coasts during June 2021. In these events local people and NGOs were also invited.



Figure 5 Announcement posters for beach cleanup, June 2021



## Bushehr

In Bushehr, Persian Gulf Oceanography Center invited the public and environmental activists to participate in the cleaning program of one of the swimming beaches of Bushehr (Jofreh Beach). This public announcement was made with the aim of informing and reminding people about the importance of preserving and protecting the coastal marine environment. In this event, Jofreh beach was cleaned by the participants on June 7, 2021.



Figure 6 Photos of beach cleanup in Bushehr (Jofreh Beach, June 7, 2021), on the occasion of World Ocean Day.

### *Bandar Abbas*

In Bandar Abbas, staff of the Persian Gulf Oceanography Center collected beach trash in Nakhle Nakhoda beach on June 7, 2021. This cleanup, which took place on the occasion of World Ocean Day, had two goals 1) a clean beach and 2) changing human behavior and creating a "beach ethic" so that beach cleanups eventually become unnecessary. Materials collected at this cleanup ranged from cigarette butts and small pieces of plastics to plastic bottles and bags to fishing nets.



*Figure 7 Photos of beach cleanup in Bandar Abbas (Nakhle Nakhoda Beach, June 7, 2021), on the occasion of World Ocean Day.*



### Chabahar

In Chabahar located in the north of the Gulf of Oman, beach cleanup activity was performed on June 8, 2021 to commemorate the World Oceans Day. In a 2-hr event, researchers and staff of Chabahar Oceanography Center together with local volunteers and people from Chabahar Department of Environment collected litters and debris left in “Darya-kouchak Patil” beach ( $25^{\circ}17'48.8''\text{N}$   $60^{\circ}37'33.7''\text{E}$ ) to make the beach a nicer and safer place and also to improve the quality of the coastal habitat. In an area of about  $100\text{ m}^2$ , about 50 kg of litters were collected, among which plastic bags were the most abundant.



Figure 8 Photos of beach cleanup in Chabahar Bay (Darya-kouchak Patil Beach, June 8, 2021), on the occasion of World Ocean Day.

### Nowshahr

On the occasion of World Ocean Day, a part of the southern coasts of the Caspian Sea in Nowshahr (Khiroudkenar beach) were cleaned by the staff of Nowshahr Oceanographic Center on June 8, 2021. Materials collected at this cleanup were mostly plastic materials such as beverage bottles, disposable containers, plastic bags as well as construction wastes.



Figure 9 Photos of beach cleanup in southern coasts of the Caspian Sea in Nowshahr (Khiroudkenar beach, June 8, 2021), on the occasion of World Ocean Day.

A List of people participated in beach cleanup activities can be found in [annex IV](#).



#### IV) Small activities in monitoring the oceans and coasts

Four different types of coastal monitoring and observation activities were conducted in the Iranian coastal waters in the south and north of the country:

- Basic oceanographic monitoring including in-situ measurement and water sampling for the determination of salinity, temperature, pH, dissolved oxygen, dissolved nutrients, Chlorophyll a and phytoplankton were conducted in three different stations (southern coasts of the Caspian Sea and northern coasts of the Persian Gulf and Strait of Hormoz).
- Water samples suitable for ocean acidification studies (UN Sustainable Development Goal (SDG) 14.3) were taken according to the Iran Ocean Acidification Observing Network (IrOA-ON) sampling program in 4 stations (Chabahar, Bandar Abbas, Kish Island and Bushehr).
- Water and surface sediment samples were taken for microplastic analysis in rivers of the southern Caspian Sea coasts.
- Health status of corals in the Chabahar bay were evaluated by scuba diving and video transecting.



Figure 10 Announcement posters for the activities of monitoring the oceans and coasts in World Ocean Day.

### *Basic oceanographic monitoring- Bushehr*

In the coastal monitoring activity, which was held on the occasion of the World Oceans Day on June 7, 2021 in Bushehr, different parameters of seawater quality and pollution were measured in two stations, including Jofreh swimming beach and Bushehr port. Water samples were collected using a niskin bottle for determination of dissolved nutrients, pH, dissolved oxygen, salinity, temperature and chlorophyll a. Dr. M. Ghaemi the director of the Persian Gulf Oceanography Center (Bushehr) of INIOAS, S. Gholamipour and A. Arabzadeh performed this sampling-measuring event.



*Figure 11 Sample photos of basic oceanographic monitoring in Bushehr Port- Bushehr, June 7, 2021.*

### *Basic oceanographic monitoring- Bandar Abbas*

In Bandar Abbas coast (Nakhl-e Nakhoda beach), researchers of the Persian Gulf Oceanography Center measured some physicochemical parameters of seawater (e.g., temperature, salinity, dissolved oxygen and pH) by a portable multimeter on June 7, 2021. Dr. S. Hamzei the director of the Persian Gulf Oceanography Center (Bandar Abbas) of INIOAS, Dr. M. Hamzeh and Dr. E. Koochaknejad conducted these measurements.



Figure 12 Sample photos of basic oceanographic monitoring in Nakhl-e Nakhoda beach- Bandar Abbas, June 7, 2021.

### Basic monitoring- Anzali wetland

Sediment and water sampling and some in-situ measurements were performed in 8 stations in Anzali wetland (May 27, 2021) to determine and analyze water quality and benthic community of the area.

Table 3 Sampling stations in Anzali wetland, May 27, 2021

	Latitude	Longitude
<b>S1</b>	37.463981	49.466881
<b>S2</b>	37.463489	49.464271
<b>S3</b>	37.461855	49.460583
<b>S4</b>	37.459844	49.458898
<b>S5</b>	37.456674	49.456402
<b>S6</b>	37.453331	49.455159
<b>S7</b>	37.447323	49.454375
<b>S8</b>	37.445009	49.459913





Figure 13 Sampling stations in Anzali wetland, May 27, 2021

Sediment samples were collected by a Van-Veen grab to evaluate benthic organisms in 8 stations in Anzali wetland. In-situ measurements of pH, conductivity, temperature and dissolved oxygen were performed in all stations by a portable multimeter. Water samples for determination of dissolved nutrients also were taken to be analyzed in chemistry lab (May 27, 2021). (Performed by Dr. Ahmad Manbouhi & Reza Rahnama)





Figure 14 Sediment and water sampling and some in situ measurements in Anzali wetland (May 27, 2021) on the occasion of World Ocean Day.

#### Microplastic sampling (water and sediments)- Southern Caspian Sea rivers

In the occasion of World Oceans Day, in order to investigate the microplastic distribution in the water and sediments of the rivers of the Southern Caspian Sea, sampling of 7 rivers including: Chalous, Cheshmeh Kileh, Saffarud, Polrud, Chamkhaleh, Sefidrud and Gorganrud was performed. In each river, floated microplastics were sampled by a plankton net and sediment sampling was done by a grab sampler in both downstream and upstream of each river (performed by Dr. Ahmad Manbouhi & Reza Rahn timer).

Table 4 Rivers and points of the Southern Caspian Sea which sampled for microplastic analysis on the occasion of World Ocean Day (May 27, 2021)

Rivers	Downstream (Lat. Long.)		Upstream (Lat. Long.)	
Chalous	36.669865	51.453715	36.629722	51.403770
Cheshmeh Kileh	36.819208	50.882054	36.676206	50.827046
Saffarud	36.940269	50.653778	36.909946	50.617823
Polrud	37.094499	50.377373	37.053982	50.353573
Chamkhaleh	37.213796	50.271664	37.201396	50.104566
Sefidrud	37.462201	49.937034	37.251638	49.898630
Gorganrud	37.832860	48.977850	37.801071	48.885298



Figure 15 Rivers and points of the Southern Caspian Sea which sampled for microplastic analysis on the occasion of World Ocean Day (May 27, 2021), and sample photos.



### *Water sampling for coastal ocean acidification (OA) monitoring*

Water samples suitable for ocean acidification studies (UN Sustainable Development Goal (SDG) 14.3) were taken according to the Iran Ocean Acidification Observing Network (IrOA-ON) sampling program in 4 stations during May 30 to June 3, 2021 (Chabahar, Bandar Abbas, Kish Island and Bushehr).

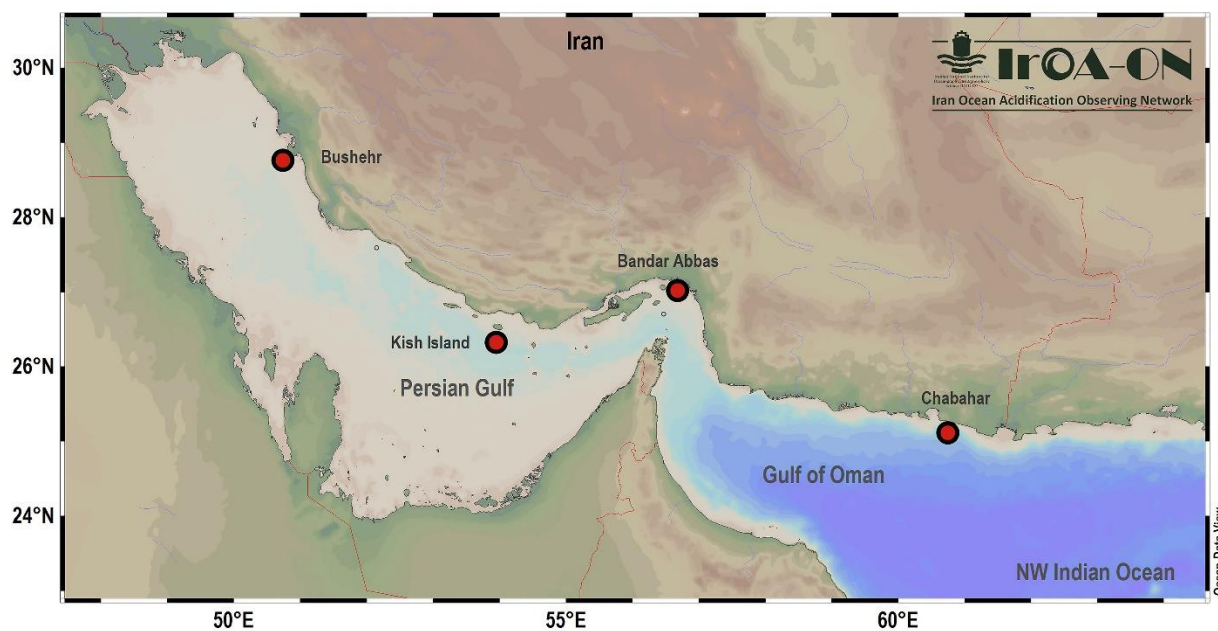
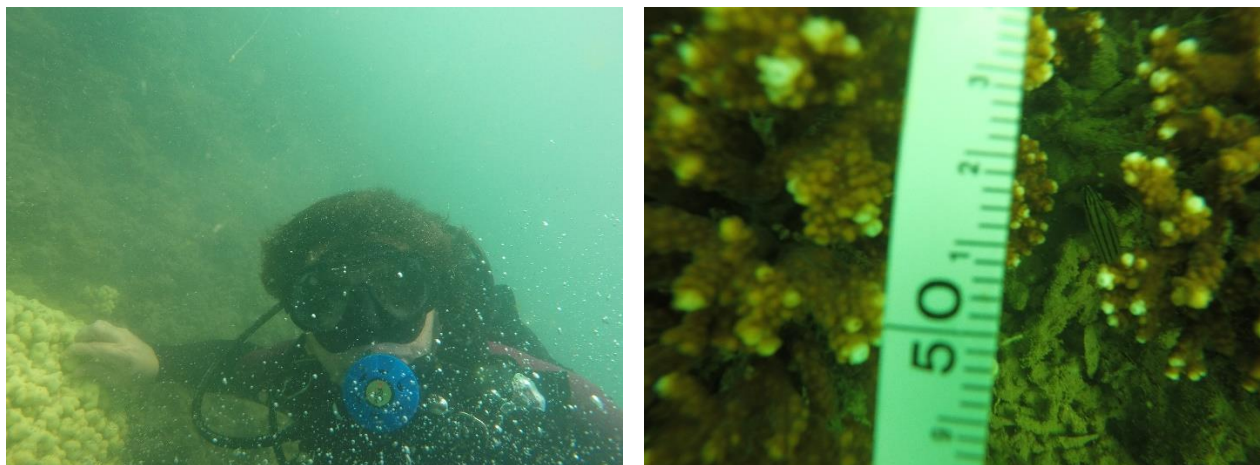


Figure 16 Sampling stations for ocean acidification monitoring program in southern coasts of Iran. Photos of water samples and sampling (May 30 to June 3, 2021).

### *Coral health status evaluation in Chabahar Bay*

Health status of 50 m<sup>2</sup> of corals of Lipar Stone Park (25°19'09.4"N 60°37'14.6"E) in the Chabahar bay were evaluated by scuba diving and video transecting, on June 9, 2021. During this evaluation, the standard belt transect method was used for performing fish surveys. In doing so, a 100 m tape measure was laid straight on the seafloor at ca. 4m depth and fish counts were recorded along four intermittent segments of 25m long (i.e. 0-20, 25-45, 50-70 and 75-95m) and 5m wide. Point intercept transect (PIT) surveys were performed at the same locations. For each PIT survey, a 100 m fiberglass tape measure was first laid straight on the substratum at the same depth range as BRUV deployments. Close-up top view photos of the substratum were then taken at 0.5-m intervals along four intermittent transect segments 20 m in length. A total of three transect lines were surveyed at each study area. The percentage cover of the substrate categories and hard coral growth forms were determined by recording the corresponding categories of substrate that occurred exactly beneath the considered point for each photo.

This survey was performed by Dr. Hamid Ershadifar, Dr. Amir Ghazilou and Mr. Hakim Barani



*Figure 17 Sample photos of Coral health status evaluation in corals of Lipar Stone Park - Chabahar Bay, June 9, 2021.*

A List of people participated in beach cleaning and measurement activities can be found in [annex IV](#).



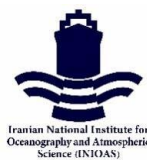
#### V) Meeting of the Iranian National Committee for Oceanography on world oceans day

The World Oceans Day 2021 was commemorated and celebrated virtually on Tuesday June 8, 2021 during the meeting of the Iranian National Committee for Oceanography of the Iranian National Commission for UNESCO.



Figure 18 left: poster of World Ocean Day 2021 theme; right: poster of planed activities of INIOAS for World Ocean Day 2021

Dr Behrooz Abtahi, President of the Iranian National Institute for Oceanography and Atmospheric Science (INIOAS) and Chair of the Iranian National Committee for IOC of the Iranian National Commission for UNESCO, after congratulating the World Ocean Day and thanking the Director of the UNESCO Tehran Cluster Office (UTCO) for supporting the activities of the INIOAS on the occasion of World Ocean Day, briefed the session on a summary of the most important related INIOAS activities. He, referring to the importance of promoting oceanic and marine sciences, especially in the decade of Ocean Science for Sustainable Development (2021-2030), mentioned the holding of 4 virtual webinars entitled Basic Oceanic Knowledge with the focus on the Persian Gulf and Gulf of Oman for teachers in four coastal provinces in the south of the country, including Khuzestan, Bushehr, Hormozgan and Sistan and Baluchestan, during May 30 to June 2, 2021. According to him, fortunately, nearly 1000 teachers participated in these educational webinars, which were held with the aim of increasing



the ocean literacy of school teachers. It is clear that increasing ocean literacy of schoolteachers will be effective in educating a generation more aware of ocean and marine environments.

Dr. Abtahi also described the monitoring activities of the INIOAS in the coastal waters of the country in the occasion of the World Oceans Day. He said: "For this purpose, measuring of some physicochemical parameters of sea water and sampling were performed in coastal areas on Bandar abbas, Bushehr and Nowshahr. The Chabahar Bay Coral-reef Monitoring Program was also implemented by the research staff of the Chabahar Oceanographic Center." He added that with the participation of researchers from coastal oceanographic centers, a symbolic beach cleanup program was held in Bushehr, Bandar Abbas, Chabahar and Nowshahr with the help and participation of local communities.

He also mentioned the importance of sharing ocean and marine data and information, and said that with the excellent support and participation of marine organizations, a specialized meeting entitled "Iranian distributed marine data and information for sustainable development" with the presence of representatives from different related organization was held on June 7, 2021. In this meeting, representatives from Iranian National Center for Ocean Data (INCOD-INIOAS), Vice-Presidency for Science and Technology, Department of Environment, Iranian National Cartographic Center, Iranian Fisheries Science Research Institute, Iran Space Agency, Iran Meteorological Organization, Geological Survey and Mineral Explorations of Iran, Iran Fisheries Organization, Ports and Maritime Organization, and National Geographical Organization of Iran presented their marine database and their data sharing policies to help the country's sustainable development. He said that in this meeting, participants were introduced to the sections related to data and information in the different Iranian marine organizations and their tasks, their data management plans and mechanisms, their data sharing and exchange policies, their data products and services, and current and new national and international topics on ocean data management.

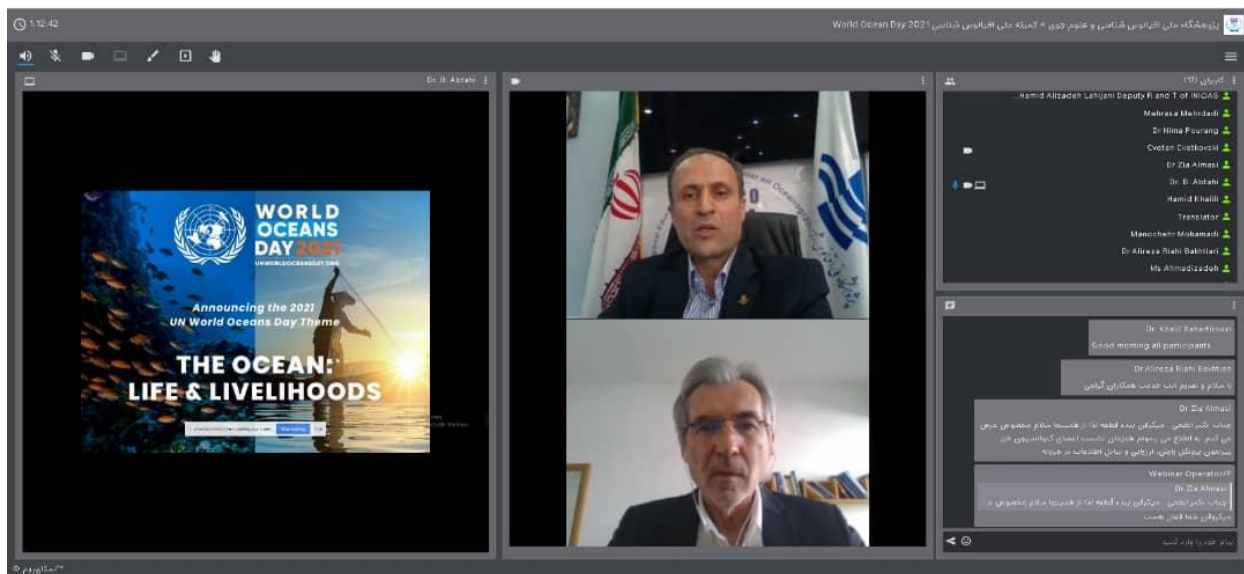
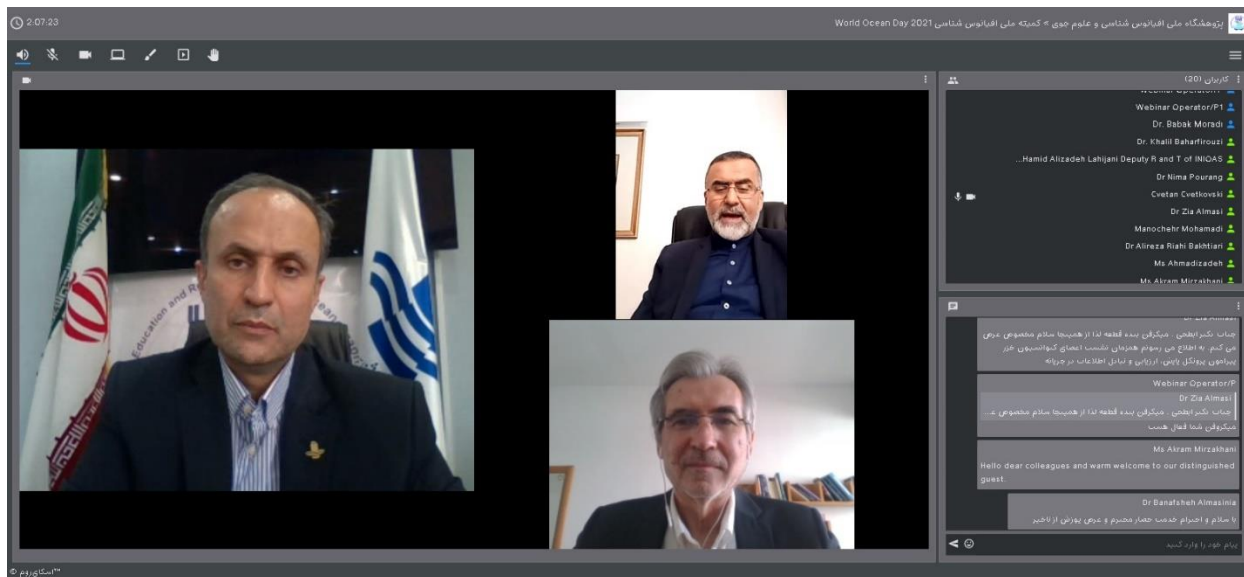
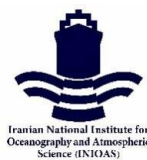


Figure 19 A photo of the virtual meeting of Iranian National Committee for Oceanography of the Iranian National Commission for UNESCO (June 8, 2021). The World Oceans Day 2021 was celebrated in this meeting.

Then Mr. Cvetan Cvetkovski, officer-in-charge of UTCO, gave his speech. He referred to three international environmental occasions in late May and early June and said: "World Environment Day, International Day for Biological Diversity and World Ocean Day, all emphasize and remind us the importance of the role of the environment and the oceans in human life. The oceans are the lungs of our planet and provide most of the oxygen we need." He then read the message from the Director-General of UNESCO, H.E. Ms. Audrey Azoulay, on the occasion of World Ocean Day.





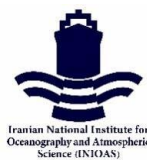
Dr. Ayoubi, Secretary General of the National Commission for UNESCO, was the next speaker at the meeting. He called the National Commission for UNESCO-Iran one of the active national commissions of UNESCO and added: "Our main asset is the brand and name of UNESCO, which allows us to be successful in informing and streaming. We currently have 4 creative cities and 10 learning cities, whose mayors have received certificates by the Minister of Science, Research and Technology, and all of them are ready to cooperate in the implementation of the commission's projects. In addition, in Karaj, we started the Commission's Culture Garden project. It took three years for the park to become a cultural symbol. Also, Shiraz Jahan Nama Garden will soon become a UNESCO Hall of Fame. Last year, we designed a certificate of respect for water. We currently have 14 UNESCO clubs in our country that operate under the UNESCO brand. We have the International Day of Nowruz brand, which is a good possibility that can be used in the field of water and environment. In any case, the commission is ready to cooperate with institutions and organizations."

Then, a video of the activities of INIOAS on the occasion of World Oceans Day was played.

Finally, the members of the National Oceanographic Committee presented the important programs of the relevant organizations in line with the decade of Ocean Science for Sustainable Development (2021-2030) of the United Nations. The list of INIOAS activities and plan for the UN decade of Ocean Science for Sustainable Development (2021-2030) could be find in [annex V](#).



## Annexes



## Annex I- Agenda

### Agenda of World Oceans Day Program by the Iranian National Institute for Oceanography and Atmospheric Science

#### Program #1

Marine data and information are distributed in different marine organizations and institutes. In this semi-virtual event, representatives of ten organizations will introduce and present their facilities concerning marine data and information. Timetable of the workshop is as follows:

<b>Session on</b> <b>Iranian Distributed Marine Data and Information for Sustainable Development</b> <b>June 7, 2021</b> <b>09:00 am -12:00 pm</b>		
<b>Organization Name</b>	<b>Lecturer</b>	<b>Time</b>
Iranian National Institute for Oceanography and Atmospheric Science (INIOAS)	Dr Hamid Alizadeh Mrs Farnaz Ghiasi	9-9:30
Presidency of the Islamic Republic of Iran Vice-Presidency for Science and Technology	Dr Arjomandi	9:30-9:45
Geological Survey and Mineral Exploration of Iran (GSI)	Dr Karimkhani	9:45-10
Iranian Space Agency (ISA)	Ms Mansoori	10-10:15
I.R. of IRAN Meteorological Organization (IRIMO)	Mr Sabet	10:15-10:30
<b>Break</b>		<b>10:30-10:45</b>
Department of Environment (DOI)	Dr Mirshekar	10:45-11
Iranian Fisheries Science Research Institute (IFSRI)	Dr Sarji	11-11:15
Ports and Maritime Organization (PMO)		11:15-11:30
National Cartographic Center (NCC)		11:30-11:45
Iran Fisheries Organization		11:45-12



## Program #2

Online workshop of the ocean literacy for school teachers organized for the four Southern Coastal Provinces. The Persian Gulf and Gulf of Oman will be introduced concerning geological, chemical, biological and physical oceanography.

Online Workshops on Ocean Literacy for School Teachers (The Persian Gulf and Gulf of Oman)		
Location	Time	Coordinators
Khuzestan Province	May 30, 2021 14-16 PM	B. Abtahi, H. Lahijani, A. Saleh
Bushehr Province	May 31, 2021 14-16 PM	B. Abtahi, H. Lahijani, A. Saleh
Hormozgan Province	June 1, 2021 14-16 PM	B. Abtahi, H. Lahijani, A. Saleh
Sistan & Bluchestan Province	June 2, 2021 14-16 PM	B. Abtahi, H. Lahijani, A. Saleh

## Program #3

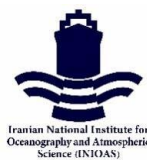
Coastal monitoring and observation conducted in the South Caspian, North Persian Gulf, Strait of Hormoz and Makran Coast. Basic oceanographical parameters are concerned as well as microplastic sampling in the South Caspian Coastal waters and Coral monitoring in the Makran.

Monitoring of Coastal Waters in Bushehr, Bandar Abbas, Chabahar, Nowshahr	
Location	Concerned Parameters
South Caspian Coast	CTD, Water, Sediment, Plankton and Microplastic Sampling
North Persian Gulf	Water, Sediment, Plankton Sampling
North Strait of Hormuz	Water, Sediment, Plankton Sampling
Makran Coast	Water, Sediment, Plankton Sampling, Coral Monitoring

## Program #4

Beach cleaning will be performed in Nowshahr, Bushehr, Bandar-e Abbas and Chabahar coasts. In these events local people and NGOs will be invited.

Symbolic practice to clean the beaches by INIOAS Stations in North and South coasts of Iran in cooperation with NGOs (Chabahar, Bandar Abbas, Bushehr, Nowshahr) will be carried out on 14-15 June 2021.



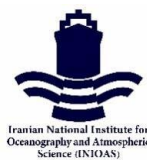
## Program #5

Meeting of the Iranian National Committee for Oceanography and celebration ceremony on the occasion of the World Ocean Day hold on 8<sup>th</sup> June 2021.

The members of the committee are from the following organizations:

1. Iranian National Institute for Oceanography and Atmospheric Science-2 Members
2. Regional and Education Research Centre on Oceanography for West Asia under the auspices of UNESCO- 1 Member
3. Ministry of Foreign Affairs-1 Member
4. Ministry of Energy-1 Member
5. Department of Environment -1 Member
6. The Ministry of Petroleum--1 Member
7. Iran Meteorological Organization-1 Member
8. Geological Survey of Iran -1 Member
9. Iran Fisheries Organization -1 Member
10. Iranian Fisheries Science Research Institute-1 Member
11. Ports and Maritime Organization-1 Member
12. Iranian National Commission for UNESCO- 1 Member
13. Tarbiat Modarres University -1 Member
14. Shipping Association of Iran -1 Member
15. Iranian Society of Marin Science and Technology-1 Member

<b>Online Meeting of the Iranian National Committee for Oceanography and Celebration of the World Ocean Day 8 June 2021</b>	
Remarks by Prof Behrooz Abtahi, Director of INIOAS and Chair of the committee	
Remarks by Mr. Cvetan Cvetkovski, Officer-in-Charge, UNESCO Tehran Cluster Office Reading the Message of General Director of UNESCO on the occasion of the World Oceans Day	
Remarks by Dr. Ayoobi, Secretary General of Iranian National Commission for UNESCO	
Report of the activities organized on the occasion of the World Oceans Day	
Presentations of the Members	



## Annex II – list of resource persons and participants in Ocean Literacy webinars for school teachers

### Resource persons (Female 0%, Male 100%)

نام و نام خانوادگی	محل خدمت - مسئولیت	تماس
۱. بهروز ابطحی	پژوهشگاه ملی اقیانوس شناسی و علوم جوی - ریاست پژوهشگاه	۰۹۱۲۴۴۵۰۷۶۷
۲. حمید علیزاده لاهیجانی	پژوهشگاه ملی اقیانوس شناسی و علوم جوی - معاون پژوهش و فناوری	۰۹۳۶۹۳۴۰۲۱۴
۳. ابوالفضل صالح	پژوهشگاه ملی اقیانوس شناسی و علوم جوی - مدیر علمی کاوشگر خلیج فارس	۰۹۱۱۳۷۳۸۱۵۴

### Participants

A total of more than 1,200 school teachers from the Iran southern provinces participated in the virtual ocean literacy webinars. Due to the large number of pages, names and contact details of the participants in the Excel files are provided as attachments to this report.



## Annex III – list of resource persons and participants in workshop on “Iranian Distributed Marine Data and Information for Sustainable Development”

### Resource persons (Female 27%, Male 73%)

نام و نام خانوادگی	محل خدمت	تماس
۱. فرناز غیائی	پژوهشگاه ملی اقیانوس شناسی و علوم جوی ایران	۶۶۹۴۴۸۷۳ fghiasi@inio.ac.ir
۲. حمید خلیلی	سازمان بنادر و دریانوردی	۸۴۹۳۲۲۶۱ hkhv2000@gmail
۳. روح اله ارجمندی	معاونت علمی و فناوری ریاست جمهوری	۲۲۴۱۴۱۹۲ arjmandi.rouhalle@ut.ac.ir
۴. علی سلطانپور	سازمان نقشه برداری کشور	۶۶۰۷۱۱۴۴ asoltanpour@yahoo.com
۵. داود میرشکار	سازمان حفاظت محیط زیست	۴۲۷۸۱۷۵۳ dmirshekar@gmail.com
۶. فرشته سراجی	موسسه تحقیقات علوم شیلاتی کشور	۰۷۶۳۳۳۳۳۳۹۰ fereshtehsaraji@gmail.com
۷. زهرا منصوری	سازمان فضایی ایران	۳۰۷۶ zmansoori@isa.ir
۸. محمد ثابت	سازمان هواشناسی کشور	۶۶۰۷۰۰۵۵ m-sabet@irimo.ir
۹. افشین کریم خانی	سازمان زمین شناسی و اکتشافات معدنی کشور	۶۴۵۹۲۲۲۹ afshin_geo@yahoo.com
۱۰. محمد اکبری	سازمان جغرافیایی نیروهای مسلح	۸۸۴۰۰۱۱۲ akbarimohammadi59
۱۱. صباح خورشیدی	سازمان شیلات ایران	۶۶۹۴۳۹۶۵ skh981@yahoo.com

### Participants (Female 40%, Male 60%)

شناسه شرکت کننده	مدت	شناسه شرکت کننده	مدت
۱. احمد منبوهی	1:18:41	۸۲	آراسته ادب
۲. Amir Omrani	4:40:10	۸۳	امیررضا بریمانی ورنی
۳. lezadi	0:8:48	۸۴	mojgan mirsaeid
۴. مونا حسین دوست	1:56:1	۸۵	null
۵. امین	0:18:25	۸۶	سمیه روحانی زاده
۶. مصطفی نظرعلی	1:22:38	۸۷	آراسته ادب
۷. راشد عبداللهی	2:57:49	۸۸	معصومه دالوند

شناسه شرکت کننده		مدت		شناسه شرکت کننده	
۸.	Dr. B. Abtahi	3:34:10	۸۹	شجاعی	4:25:30
۹.	مهندس حمید خلیلی	2:10:27	۹۰	Abdollah payam	0:54:19
۱۰.	بابک مرادی - پژوهشگاه اقیانوس شناسی	0:1:7	۹۱	کلثوم غلام نژاد	1:0:44
۱۱.	Dr. Hamid Alizadeh Lahijani	3:49:18	۹۲	امیر قاضی لو	4:21:9
۱۲.	zeinab ansari	0:25:35	۹۳	sabakhkorshidi	2:40:56
۱۳.	مصطفی نظرعلی - شرکت پویا طرح پارس	1:33:47	۹۴	سید بصیر سعیدی	2:44:46
۱۴.	سحر پژنگ	0:2:33	۹۵	لیلا نصرالهی	4:14:43
۱۵.	محمدرضا سالاری فنودی	0:44:28	۹۶	سمیه عابدی	0:23:59
۱۶.	مریم شیعه علی	2:34:2	۹۷	مریم کریمیان	4:1:19
۱۷.	هادی گریوانی	0:17:13	۹۸	جاسم شهابی	4:11:2
۱۸.	هادی	0:1:13	۹۹	Nowruzi	1:27:20
۱۹.	غلامرضا محمدپور	1:46:6	۱۰۰	شاهین توللی	1:43:48
۲۰.	Bahmani	2:45:42	۱۰۱	الهام مبارک حسن	3:37:15
۲۱.	A. Saleh	4:25:4	۱۰۲	ghasemi	4:8:16
۲۲.	محمد رضا زارعی	0:14:33	۱۰۳	سپیده پژنگ	4:8:10
۲۳.	همایون حسین زاده صحافی	1:31:43	۱۰۴	هادی کوهکن	4:7:23
۲۴.	fereshtehsaraji	4:28:35	۱۰۵	سیده لیلی محبی نوذر	3:32:20
۲۵.	قناعتیان	0:1:38	۱۰۶	marziyeh.sisipoor	4:3:57
۲۶.	احمد جباری	2:30:0	۱۰۷	محیط زیست	0:9:54
۲۷.	سید سلام حسینی - کردستان	0:11:21	۱۰۸	رشوند	0:17:15
۲۸.	ghazal.akhavan.sabbagh	1:24:15	۱۰۹	سعید نجفی	1:47:7
۲۹.	فاطمه محسنی زاده mohsenizadeh.fatemeh68@gmail.com پژوهشکده میگوی کشور ۲۲۹۷۵۰۶۳۶۸	1:47:40	۱۱۰	علی آزادی	0:47:15
۳۰.	مهدی محمدمهدیزاده	3:27:22	۱۱۱	هادی باقری	0:0:50
۳۱.	مهدی عمادی	0:26:44	۱۱۲	شبنم هادی نژاد	4:2:38
۳۲.	میرشکار اوا	0:7:28	۱۱۳	فائزه سلامی	3:57:58
۳۳.	بهزاد لایقی	4:6:9	۱۱۴	Nastaran Zare	1:52:15
۳۴.	Eng. Farnaz Ghiasi	5:0:38	۱۱۵	نویان مالکی	0:4:56
۳۵.	Hamid.Zare	0:32:0	۱۱۶	محمد حسین نعمتی	3:18:2
۳۶.	Hamid.Zare	2:13:8	۱۱۷	Gholamnejad	0:31:9
۳۷.	محمدصدیق مرتضوی	3:19:57	۱۱۸	memarbashi	3:3:17
۳۸.	عبدالوهاب مقصودلو	3:49:14	۱۱۹	ریحانه	0:12:29
۳۹.	صمد حمزه ئی	1:47:18	۱۲۰	نجف پور	0:59:19
۴۰.	مسلم نیرومند	0:6:19	۱۲۱	محمد رجبی	0:7:43
۴۱.	تا ۱	0:0:32	۱۲۲	soltani-mazandaran met	3:27:1
۴۲.	پیشداد	0:0:32	۱۲۳	رهی فروغی	3:35:31

مدت	شناسه شرکت کننده	مدت	شناسه شرکت کننده
3:9:22	علی سالارپوری	4:23:3	محمدجواد استادمیرزا تهرانی
2:7:52	کسری حصارکی	3:27:56	مشایخ
0:14:14	null	0:44:54	Zaker
2:17:49	راحله رضانی	0:13:18	Eslami.gorgan
3:14:47	Dr.Rezazadeh	0:8:53	شایگان قربانی
1:34:19	mohammad rajabi	3:20:3	غلام نژاد
0:10:6	عبدالرضا هاشمی	3:20:0	داود جاهدی وایقان
3:10:49	shahab	0:4:51	Hossein Farjami (INIOAS)
0:9:58	سونا برزگر	4:5:21	Habibi
0:17:47	eshagh hamidi	0:1:21	م ح م د
3:15:20	غلامعلی اکبرزاده	0:18:57	فرزین غیائی
0:45:7	sabakhhorshidi	4:14:58	Ali Mohammadpouri vishkaei
0:4:22	دریا	0:1:5	میثم موسوی
0:30:24	ASIAWAVE	1:55:21	قباد دهقان _ استان یزد _ اداره آموزش و پرورش منطقه مروست _ دبیر گروه جغرافیای دبیرستان عشایری رازی ( ۰۹۱۷۸۲۱۴۳۵۰ همراه)
2:45:45	Golestani	0:32:47	Maryam Soyuf Jahromi
2:43:54	محمد آفرین	2:57:10	سید احمد یعقوبی
0:54:18	حدیث طوسی	0:9:0	معصومه یوسفی
2:21:21	فریده حبیبی	0:14:19	zarghamipour
0:49:36	آرزو صادقیان	2:50:9	غلامرضا محمدپور
2:39:23	شجاعی	0:6:53	سیده مریم عمادی جمالی
2:38:46	عطیه مجتهدی	4:11:8	حسین برخوردار
0:2:19	null	3:49:28	حمیدرضا خادم بیغم
0:1:16	مهدی شهرکی	2:35:47	اکبری نسب
1:2:6	حسین باقری	4:1:36	کامران کوهستانی
1:10:57	ramazani	3:52:45	eslami
0:12:18	null	1:10:13	حسنی
2:2:36	علی ابراهیمی پرگو	0:4:32	Amir abbasi
0:2:49	پارسا رشوند	1:30:31	زبینه محرابی
2:20:13	عبدالعظیم فاضل	5:12:59	Webinar Operator/P
0:6:38	میترا عبدالحسین	0:37:44	saman mohammed
0:47:32	مریم سیوف جهرمی	0:7:13	مجید نصیری قیداری
0:10:40	Samin Danande	3:53:15	مهری سیددهشترودی
1:47:46	Parsi	1:14:5	مجید کریمیان
0:0:16	null	4:49:20	Webinar Operator/P1
1:28:41	علیرضا آفاجانی	0:1:50	علی





شناسه شرکت کننده			مدت	شناسه شرکت کننده		
۱۵۹	روشن	0:6:28	مدت	۷۸	محمد سپاهیان	0:36:19
۱۶۰	حق نگهدار	0:58:48		۷۹	سهیلا نجاتی	3:14:56
۱۶۱	null	0:2:21		۸۰	مهندس محمد ثابت	4:49:24
				۸۱	null	4:53:5

## Annex IV – List of people participated in beach cleaning and measurement activities

### Beach cleanup and Coastal monitoring- Bandar Abbas

Coastal monitoring (Female 0%, Male 100%)

نام و نام خانوادگی	محل خدمت	تماس
۱. صمد حمزه ئی	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۷۷۶۳۱۰۷۵
۲. محمد علی حمزه	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۳۱۹۹۱۹۹۳
۳. عماد کوچک نژاد	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۶۳۱۹۱۹۹۶
۴. محمد کریم پور	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۷۹۵۴۳۳۸۵

Beach cleanup (Female 0%, Male 100%)

نام و نام خانوادگی	محل خدمت	تماس
۵. صمد حمزه ئی	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۷۷۶۳۱۰۷۵
۶. محمد علی حمزه	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۳۱۹۹۱۹۹۳
۷. عماد کوچک نژاد	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۶۳۱۹۱۹۹۶
۸. محمد کریم پور	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۷۹۵۴۳۳۸۵

### Beach cleanup and Coastal monitoring- Bushehr

Coastal monitoring (Female 50%, Male 50%)

نام و نام خانوادگی	محل خدمت	تماس
۱. مریم قائمی	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۷۷۰۲۶۸۱۵
۲. سارا غلامی پور	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۷۳۷۲۶۹۲۸
۳. احمد عرب زاده	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۷۱۷۷۶۸۷۱
۴. عبدالمحمد بازیار	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۷۱۷۳۴۶۸۳

Beach cleanup (Female 38%, Male 62%)

نام و نام خانوادگی	محل خدمت	تماس
۱. مریم قائمی	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۷۷۰۲۶۸۱۵
۲. سارا غلامی پور	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۷۳۷۲۶۹۲۸
۳. احمد عرب زاده	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۷۱۷۷۶۸۷۱
۴. غلامرضا محمدپور	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۷۳۰۱۷۶۱۶

۰۹۱۷۱۷۳۴۶۸۳	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	عبدالمحمد بازیار	۵.
۰۹۳۰۷۳۹۰۸۸۵	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	نرگس مرغایی زاده	۶.
۰۹۱۷۷۵۶۱۰۰۸	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	ماشالله محمدی	۷.
۰۹۱۷۳۷۲۶۴۰۳	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	محمد امین طلاب	۸.
-	-	افراد محلی	۹.

## Beach cleanup and coral reef monitoring- Chabahar

Coral reef monitoring (Female 0%, Male 100%)

نام و نام خانوادگی	محل خدمت	تماس
۱. حمید ارشادی فر	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۳۶۰۱۰۵۸۶۳
۲. امیر قاضی لو	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۴۴۰۴۱۱۲۸
۳. حکیم بارانی	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۵۲۸۹۱۳۶۲

Beach cleanup (Female 0%, Male 100%)

نام و نام خانوادگی	محل خدمت	تماس
۱. حمید ارشادی فر	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۳۶۰۱۰۵۸۶۳
۲. امیر قاضی لو	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۴۴۰۴۱۱۲۸
۳. حمید رضایی	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۵۳۴۱۴۸۳۴
۴. حکیم بارانی	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۵۲۸۹۱۳۶۲
۵. غلام رسول بسکله	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۵۹۵۳۶۲۳۱

## Beach cleanup, Coastal monitoring and microplastic sampling - Nowshahr

Coastal monitoring (Female 0%, Male 100%)

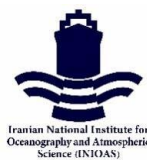
نام و نام خانوادگی	محل خدمت	تماس
۱. سیامک جمشیدی	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۲۷۳۰۸۴۴۲
۲. احمد منبوهی	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۱۶۱۰۶۲۰۲
۳. رضا رهنما هراتیر	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۳۶۹۳۴۰۲۱۴
۴. کاظم درویش بسطامی	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۲۴۴۵۰۸۶۷
۵. علی حمزه پور	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۱۹۹۲۵۰۶۸

Beach cleanup (Female 0%, Male 100%)





نام و نام خانوادگی	محل خدمت	تماس
۴. کاظم درویش بسطامی	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۲۴۴۵۰۷۶۷
۵. رضا رهنما هراتیر	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۳۶۹۳۴۰۲۱۴
۶. رمضان محمدی	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۱۱۳۷۳۸۱۵۴
۷. علیرضا شمسی	پژوهشگاه ملی اقیانوس شناسی و علوم جوی	۰۹۹۱۳۱۸۱۴۷۵

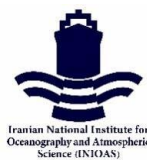


## Annex V - Plans for the UN Decade of Ocean Science for Sustainable Development

### RCOWA & INIOAS activities and plan for the UN Decade of Ocean Science for Sustainable Development (2021-2030)

#### Organized Activities

1. Establishing Iranian Ocean Decade Committee
2. A secretariat was formed by the leader of the committee to pursue and carry out the activities in 10 February 2020.
3. Holding National Webinar on "Climatic Concept of Interannual Fluctuations in the Level of the Caspian Sea", 1 March 2021
4. Holding the International Workshop on "Effects of Climate Change on the Indian Ocean Marine Environment" on the occasion of the Persian Gulf National Day, 1st May 2021
5. Holding National Workshop on "Climate and ecological condition of the Persian Gulf", 11 May 2021
6. A series of virtual Ocean Literacy webinars for school teachers in coastal provinces in southern Iran (Khuzestan, Bushehr, Hormozgan, Sistan and Baluchistan); 8 June 2021- on the occasion of the World Oceans Day
7. Hybrid of virtual and physical session on "Iranian Marine Data and Information at the Service of Sea-based Development"; 7 June 2021- on the occasion of the World Oceans Day
8. Symbolic practice to clean the beaches by INIOAS Stations in North and South coasts of Iran in cooperation with NGOs (Chabahar, Bandar Abbas, Bushehr, Noshahr); 8 June - on the occasion of the World Oceans Day
9. Hold the meeting of the Iranian National Committee for Oceanography on World Oceans Day. Committee members presented their plans for the UN decades of Ocean Science for Sustainable Development. 8 June 2021- on the occasion of the World Oceans Day



10. Carrying out a small activity in monitoring the oceans and coasts, including simultaneous measurement at four points in the north and south of Iran and monitoring the health status of coral reefs in Chabahar Bay

## Upcoming Events:

The upcoming events that were planned by the committee are as follows:

1. Celebrating Caspian Day, 12 August 2021
2. Organization of a specialized workshop on the conditions of the Mangrove forest of the Persian Gulf, on the occasion of the International Day for the Conservation of the Mangrove Ecosystem, 26 July 2021
3. Marine Exhibition on the Occasion of the National Research Week, December 2021
4. Regional Workshop on "How to do An Oceanographic Survey with emphasis on zooplankton" 2021
5. Regional Workshop on "Data Analysis and Ocean Observing Instruments"
6. Regional Workshop on "Coastal Desalination Sea water intake and Brine Disposal system- Planning, Design and Implementation"
7. Regional Workshop on "Patent and Intellectual Properties in Ocean Researches and innovation"

## Long-Term Program

### "The West Asia Blue Waters"

Also, "The West Asia Blue Waters", a 10-year programme were proposed by the UNESCO Category 2 Regional Education and Research Center on Oceanography for West Asia (RCOWA) to link science and life and to elevate ocean literacy amongst people in the region. The program covers a wide range of different oceanographic disciplines that are organized in 5 projects with the aim of environmental preservation, education, data and information sharing and associating coastal dwellers in the ocean and coastal observations. The projects are as follows:

1. West Asia Marine Science and Scientists Hub: An accessible ocean and marine science and technology in West Asia, establishing marine docs system, west Asian ocean and marine



experts system and ocean biogeographical system for the exchange of information among scientists and end-users

2. Remotely sensed database: Free remotely sensed database for scholars and end-users to decipher ocean and marine health in west Asia
3. Seagoers: Marine news, transfer of general ocean and marine science to schools, local people and people who go to sea for work and leisure to share their findings (pollution, new species, and abnormal events)
4. Clean coast, clean sea, healthy life
5. Floating Oceanography School: Floating school, involving students, teachers and decision-makers in research on the scientific vessels to see how the ocean system works

Title of Project	Duration (year)	Main Objective	Main Outcome
West Asia Marine Science and Scientists Hub	4	Providing a platform for regional dialogue on oceanography	Developing a regional experts' database
Remotely sensed database	5	Accessibility of remotely sensed data for scholars and students	A remotely sensed data repository
Seagoers	10	Scientific participation of coastal dwellers	Developing coastal observations to remote areas
Clean coast, clean sea	4	To participate local people and visitors in preserving the environment	Organizing NGOs and local communities for environmental protection
Floating Oceanography School	10	Practical oceanography for everyone	Training young people on board



## List of attachments

- Videos and Photos (coastal monitoring, beach cleanup, webinars)
- Lists of participants to the ocean literacy webinars
- Presentations