

**Framework Convention
for the Protection of the Marine
Environment of the Caspian Sea**

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**CONFERENCE OF THE PARTIES
Sixth Meeting
... 2018, Baku, Azerbaijan**

Working Group on (Environmental) Monitoring and Assessment
(Note by the interim Secretariat)

Introduction:

At its 5th Meeting, Ashgabat, Turkmenistan, 30 May 2014, the Conference of the Parties to the Tehran Convention (COP5) decided to establish a Working Group on (Environmental) Monitoring and Assessment (WGMA).

At the first Preparatory Committee Meeting for COP6 (PrepCom1), Baku, Azerbaijan, 24-27 November 2014, the Representatives of the Contracting Parties requested TCIS to invite the Contracting Parties to nominate up to two members of the WGMA and to prepare terms of reference for consideration and approval by PrepCom2 and COP6.

By letter of 27 February 2015, the Contracting Parties were requested to nominate up to two members of the WGMA.

At PrepCom2, in Baku, Republic of Azerbaijan, 31 May – 3 June 2015, the Representatives of the Contracting Parties reviewed and agreed on the name and terms of reference of the WGMA. The nominated members of the Working Group met informally, elected Mr. Alexander Postnov, Deputy Director of the State Oceanographic Institute, Roshydromet, Russian Federation as Acting Chair, and agreed on the work in the months ahead. The report of the informal meeting is attached as Annex 1.

By letter of 18 June 2015, the Contracting Parties were requested to confirm or, if they would wish, amend the nomination of their member(s) of the Working Group.

The agreed terms of reference of the WGMA as well as the list of its nominated members are attached as Annexes 2 and 3.

The first meeting of the WGMA took place back to back with the first round of negotiations on the Protocol on Monitoring, Assessment and Information Exchange, in Baku, Azerbaijan, 20-21 January 2016. The second meeting was held in Bandar Anzali, IR Iran on 19 April 2017, again back to back with the negotiations on the Protocol on Monitoring, Assessment and Information Exchange. The reports of both meetings are attached as annexes 4 and 5.

The third meeting of the WGMA was held in Geneva, Switzerland on 15 November 2017, back to back with the fifth Preparatory meeting for the sixth Meeting of the Conference of the Parties to the Tehran Convention. The report of the meeting is attached as Annex 6.

The meeting reviewed the Caspian Environmental Monitoring Programme (EMP) and agreed to modify it in line with the developments and changes occurred since the approval of the program in 2102. The WGMA also discussed the sediment quality standard criteria and monitoring-data exchange procedures, including the establishment of a Caspian monitoring data centre, perhaps as

part of the Caspian Environment Information Centre (CEIC), which' development and operation is the responsibility of the designated National Information Officers, co-ordinated by GRID Arendal.

The WGMA provided and intends to continue to provide inputs to the negotiations on the Protocol on Monitoring, Assessment and Information Exchange, particularly in the form of the marine environment quality standards/criteria and procedures for monitoring-data exchange, as well as to the preparation of the 2nd State of the Caspian Environment report which is also coordinated by GRID Arendal.

Close links are being maintained with CASPCOM which has agreed to collaborate and offer its expertise, and with which TCIS has concluded an MOU for Cooperation.

Suggested Action:

The Meeting may wish to:

1. Adopt the Terms of Reference of the WGMA, contained in Annex 2;
2. Welcome and endorse the composition and elected Chair of the WGMA, as contained in Annex 3;
3. Welcome the progress made by the WGMA in identifying and implementing priority issues of its agenda, in particular on common water and sediment quality standards;
4. Request the Secretariat to continue to promote close collaboration between the WGMA and CASPCOM, including in support of the preparation of the second State of the Caspian Sea Environment report;
5. Furthermore, request the Secretariat, in consultation with the WGMA and GRID Arendal to develop the institutional and technical requirements and options for a Caspian monitoring data centre, including its possible integration in the CEIC.

**Report of the informal Meeting of the
Working Group on Monitoring and Assessment
3 June 2015**

The newly formed working group met in Baku on 3 June 2015. In accordance with its draft ToR, the Group elected Dr. Alexander Postnov, Deputy Director of the State Oceanographic Institute (SOI), Roshydromet, Moscow, Russian Federation as acting Chairperson with an understanding that both the composition of the working group and its chairperson subjected to approval by the Contracting Parties during COP-6. The group noted that since a Russian representative had been elected as the acting chairperson, the Russian Federation was entitled for one more expert representing the country in the working group. Thus, Dr. Alexander Korshenko, head of Laboratory for marine pollution monitoring, SOI, initially meant as alternate to Mr. Postnov became a full member of the group.

The acting chairperson expressed his views on the issues which could be addressed by the working group at its first meeting tentatively scheduled for late January 2016. They were:

(a) to evaluate the Party's preparedness for implementation of the Caspian Environment Monitoring Programme (EMP) previously welcomed by COP meetings. In this connection, the WG members could prepare descriptions of the national monitoring programmes, including information on the responsible agencies, implementing organizations, number of sampling sites, list of sampled marine environmental parameters, chemical analysing capabilities (laboratory equipment and personnel), etc.;

(b) to elaborate approaches to establishment of the regional marine water quality standards taking into account the sets of maximum allowable concentrations (MACs) of pollutants in marine waters legally established in 4 of 5 littoral countries. As a first step, the established MACs could be compared across the littoral states and against those introduced by European Union. Besides, it was proposed to examine principles used in Europe, US and Canada for establishing standards for pollutants in bottom sediments and biota as well as for identifying sub-regions for the purpose of setting sub-regional marine environment quality standards;

(c) to evaluate the Party's preparedness for raw data exchange provided that the protocol on monitoring and data exchange has been negotiated and come into power. Such an evaluation could be based on an analysis of the country's legislation related to information exchange with abroad. Besides, the willingness of the Parties to share the available data on the water quality with other countries for a proper assessment of the state of the Caspian Sea marine environment could be evaluated.

After a brief discussion, the members of the group agreed with the proposed areas of activities for the next 7 months and requested the acting chairperson to provide them a questionnaire in support of the outlined plan.

**Terms of Reference
Working Group on Monitoring and Assessment
to the Tehran Convention**

At its 4th Meeting, in Moscow, Russian Federation, on 12 December 2012, the Conference of the Parties (COP) to the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Tehran Convention):

- Welcomed the Environmental Monitoring Programme (EMP) contained in document TC/COP4/7 as "the basis for continuation of this activity and capacity building and regional cooperation for monitoring the parameters which determine the quality of the marine environment of the Caspian Sea", and
- Requested the (interim) Secretariat "to continue and promote its implementation with the involvement and/or support of the CaspCom (Coordinating Committee on Hydrometeorology and Pollution Monitoring of the Caspian Sea), the GEF, the EU, and other stakeholders".

At its 5th Meeting, in Ashgabat, Turkmenistan, on 30 May 2014, the Tehran Convention Conference of the Parties:

- Welcomed the MoU between the CaspCom and the (interim) Secretariat of the Tehran Convention, contained in document TC/COP5/5);
- Welcomed the proposed Regional Framework and Network for the Tehran Convention and Protocol Compliance Monitoring and Assessment contained in document TC/COP5/5;
- Decided to establish a Working Group on Monitoring and Information Exchange; and
- Requested the (interim) Secretariat to initiate and service intergovernmental consultations related to the development of a legal framework for information sharing in support of the implementation of the Tehran Convention and its Protocols, and in consultation with the Working Group on Monitoring and information Exchange.

At the first Preparatory Meeting for COP6, in Baku, Republic of Azerbaijan, on 27 November 2014, the Representatives of the Parties considered a proposal by the (interim) Secretariat for a legal instrument on data and information sharing, as well as the views of experts on Caspian Regional Water Quality Standards and Objectives, and agreed that a legal instrument on data and information sharing should/could, *inter alia*:

- Provide the framework for the implementation of the EMP and the role of the Working Group on Monitoring and Assessment therein;
- Include a set of water quality standards and objectives

In light of the above and within available resources, the Working Group on Monitoring and Assessment will carry out the following tasks and responsibilities:

1. Keep under review the implementation of the Caspian EMP as required and develop proposals on institutional and operational procedures for a sustainable environmental monitoring system, including a network of national monitoring institutions and national focal points;
2. Carry out a gap analysis of the required monitoring capacity and study the compatibility of national methodologies, including identification of resource requirements to ensure harmonization;
3. Develop regional guidelines for the implementation of the EMP including a quality assurance system taking into account national standards;
4. Develop a basic set of regional and/or if required subregional water quality standards, taking into account the approach suggested in the expert view paper mentioned above;
5. Develop water quality objectives based on the agreed water quality standards;
6. Advise on the role and place of agreed water quality standards and objectives in a legal instrument for monitoring and information exchange;
7. Identify the needs for and provide advice on capacity building as well as on the EMP implementation arrangements in pilot coordinated monitoring cruises;
8. Provide inputs for and oversee the preparation of the draft Report of the State of the Marine Environment of the Caspian Sea;

9. Develop procedures for regular exchange of monitoring and assessment related information among the Contracting Parties through the Secretariat;
10. If necessary, the present terms of reference will be reviewed pursuant to the decision of the Conference of the Parties to the Tehran Convention.

The Working Group on Monitoring and Assessment will be composed of up to two representatives per Contracting Party. It will be established and its composition decided by the COP and function under the auspices of the Secretariat of the Tehran Convention.

The Chair of the Working Group shall be elected from its members and may be reelected every two years.

Composition of the Working Group on Monitoring and Assessment**Acting Chair**

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**1st meeting of the Working Group on Monitoring and Assessment
(Baku, Azerbaijan, 20-21 January, 2016)**

The 1st meeting of the Working Group on Monitoring and Assessment (WGMA) was held in Baku, Azerbaijan 20-21 January, 2016. The meeting was attended by all WGMA members, earlier nominated by the Caspian littoral states in due course, and chaired by Acting Chairperson¹ Alexander Postnov elected at the informal WGMA meeting on the margins of COP-6 PrepCom 3 on 3 June 2015. Valentin Emelin, Grid Arendal and Sergey Monakhov, CASPAS Coordinator were participating as observers, the latter representing Coordinating Committee on Hydrometeorology of the Caspian Sea (CASPCOM) with which the Tehran Convention signed Memorandum of Understanding (Ashgabat, Turkmenistan, November 2013). Also attending the WGMA meeting as observers were the representatives of the Caspian littoral States who came for a back-to-back meeting on *draft Protocol on monitoring, assessment, access to and exchange of information* (21-22 January, 2016).

The WGMA reviewed 4 agenda items related to the WGMA Terms of Reference and agreed on the following conclusions and recommendations.

On the agenda item 1 "Regional preparedness for implementation of the Caspian Environment Monitoring Programme (Caspian EMP)"

The WGMA expressed confidence that Caspian EMP as it was welcomed by TC COP-4 in December 2012 established a minimum set of parameters required for any modern marine environmental assessments and thus the Caspian states are urged to apply efforts to build-up their capabilities to the level sufficient for starting the EMP (phase 1) implementation as soon as possible.

The WGMA reviewed the current national monitoring programs of the Caspian states as well as their capacities to meet the requirements of the Caspian EMP. The WGMA concluded that presently most states have no technical capabilities or financial resources to start a full-fledged implementation of the Caspian EMP (phase 1) in the near future. Thus, in the next several years, at least, the data on the Caspian marine environment required for Caspian State of Environment (SoE) assessments can come only from national monitoring programs and potentially published scientific papers, although the composition of these data are not sufficient for a profound SoE.

In this respect capacity building and support for monitoring activities in the EMP implementation is needed and should first and foremost focus on strengthening the individual and collective capacities of countries, through on-the-job training and otherwise, in the area of sediment sampling and monitoring related to point sources of pollution. Technical capacities and previous experience allow doing it in each country.

On agenda item 2 "Approaches to establishment of the regional marine water quality standards/targets"

In order to provide a baseline for assessments of the Caspian Sea marine environment the WGMA recommended to develop a set of Regional Marine Water, Sediment, and Biological Quality Standards (Criteria) taking into account the existing national legislation.

WGMA noted that, as of now, four out of five Caspian littoral states, namely, Azerbaijan, Kazakhstan, Russia and Turkmenistan, have the common Marine Water Quality Standards (a set of the so called Maximum Allowable Concentrations - MACs - of the major water pollutants) accommodated into

¹ The WGMA composition, chairmanship and Terms of Reference subject to formal approval by the TC COP-6.

their national legislation systems. I.R. Iran agreed to explore the possibilities for adopting these MACs as the Regional Marine Water Quality Standards.

At the same time, the legal systems of all Caspian states do not stipulate for any Sediment Quality Criteria. In view of that the WGMA nominated a sub-group of experts who shall review the Sediment Quality Criteria used in other regions of the world (Europe, USA, Canada, etc.) and draft a set of criteria for basic pollutants in the sediments, which can serve as the Regional Sediment Quality Criteria in the Caspian Sea, within the time-frame of six months.

On the agenda item 3 "Legal and technical aspects of monitoring data exchange"

The WGMA reviewed the current legislation of the Caspian littoral states related to environmental information exchange with other countries and concluded that no legal limitations are in place which might hinder the data exchange. The WGMA agreed that the *draft Protocol on monitoring, assessment, access to and exchange of information (hereafter - the draft Protocol)*, which is presently under negotiation, should contain a direct reference to agreed procedures for validated data exchange, which may include raw data, required for a proper assessment of the state of the Caspian environment.

More specifically, the following provisions related to the procedures of the data exchange, are to be reflected in the *draft Protocol*, one of its annexes or any related implementation arrangements:

- number and location of the monitoring stations (sites) whose data subject to submitting;
- type of media (water, sediments, biota);
- minimum data quality control procedures applied at the national level prior to data submitting;
- frequency and timing of submitting (e.g., annually, July-August, following the year of submitting);
- submitting formats;
- information on certified labs participating in the monitoring activities;
- address(es) used for data submitting (e.g., TC Secretariat, designated responsible national organization, etc.);
- designated responsible organization for the submitted data accumulating, checking, compiling and managing;
- rights of data owners and procedures for access to compiled datasets.

On the agenda item 4 "The Second Caspian Sea State of the Environment (SoE) Report: status of preparation"

In response to Task 8 of its Terms of Reference, the WGMA took note of the information provided by Valentin Emelin, Grid Arendal on the progress in preparation of the 2-d SoE report including its outline and table of contents. The WGMA proposed that arrangements should be negotiated among the Caspian littoral states in future which would guide the process of the SoE report preparation, outlining, *inter alia*, whether the SoE should constitute a purely scientific or governmentally negotiated report.

Sergey Monakhov, the CASPAS Coordinator, informed the WGMA meeting of the activities of the Coordinating Committee on Hydrometeorology of the Caspian Sea (CASPCOM) and the information resources developed and maintained under its auspices (catalogues of the sea level data, water temperature data, regional atmospheric circulation indicators), which are important for the assessment of the Caspian Sea environment. Further development of CASPCOM information resources will be promoted by coming into force of the Agreement on Cooperation in the Field of Hydrometeorology of the Caspian Sea (signed in Astrakhan, 29 September 2014) on 31 January 2016.

The legal basis for cooperation between the Tehran Convention and CASPCOM was laid by the Memorandum of Understanding signed in 2013. In view of that, the WGMA recommended:

- to integrate CASPCOM information resources into the information resources of the Tehran Convention through relevant links on the Convention website;
- to elaborate, through joint effort of the Tehran Convention and CASPCOM experts, a list of meteorological and hydrological indicators of the Caspian ecosystem status for their subsequent review and assessment on regular basis;
- to involve CASPCOM in the preparation of the SoE reports as regards climate, water balance and sea level change as well as other physical parameters of the Caspian Sea environment;
- Secretariats of CASPCOM and the Tehran Convention are advised to inform each other of the planned activities of the mutual interest, in particular, of the field studies of the Caspian Sea.

The major outcomes of the 1-st meeting of WGMA were reported to the negotiators of the *draft Protocol on monitoring, assessment, access to and exchange of information* who were holding a meeting in Baku on 21-22 January 2016, back-to-back with the WGMA meeting.

No dates for the 2-d WGMA meeting were specified but Secretariat proposed that it could be coupled with the 2-d round of negotiations on the *draft Protocol* which is preliminary scheduled for late 2016.

2nd meeting of the Working Group on Monitoring and Assessment

(Bandar Anzali, IR Iran on 19 April 2017)

The meeting was attended by all WGMA members, earlier nominated by the Caspian littoral states in due course, and chaired by Acting Chairperson Alexander Postnov elected at the informal WGMA meeting on the margins of COP-6 PrepCom 3 on 3 June 2015. Elena Ostrovskaya was participating as an observer, representing Coordinating Committee on Hydrometeorology of the Caspian Sea (CASPCOM) with which the Tehran Convention signed Memorandum of Understanding (Ashgabat, Turkmenistan, November 2013). Also attending the WGMA meeting as observers were the representatives of the Caspian littoral States who came for a back-to-back meeting on the draft Protocol on monitoring, assessment, access to and exchange of information (19-20 April, 2017).

The WGMA reviewed 4 agenda items related to the WGMA Terms of Reference and agreed on the following conclusions and recommendations.

On the agenda item 1 "Caspian Regional Water Quality Standards"

The WGMA agreed to accept the list of Maximum Allowable Concentrations (MACs) of marine water pollutants currently effective in Azerbaijan, Kazakhstan, Russia and Turkmenistan as interim Caspian Regional Water Quality Standards for 5 years starting from the date of the Protocol on monitoring, assessment, access to and exchange of information (hereafter Protocol) entry into force. The Chair will prepare and distribute among the WGMA members a draft list of MAC-based standards for the chemical substances included into Caspian Environmental Monitoring Programme (EMP). Standards for biological parameters outlined in EMP will be drafted by a sub-group composed of three experts from Azerbaijan, Iran and Russia.

On the agenda item 2 "Caspian Regional Sediment Quality Criteria"

WGMA took note of a report by Ms. E. Ostrovskaya on the basis for establishing bottom sediment standards including a comparison of Dutch and Canadian bottom sediment quality standards (guidelines). The WGMA members appreciated the report and requested that it is distributed among them to allow them to express their opinion (in writing) as to which set of standards (Dutch or Canadian) better fits the conditions in the Caspian Sea with a special reference to the mechanic composition of the bottom sediments in various parts of the sea.

On the agenda item 3 "CASPCOM possible contribution to implementation of Tehran Convention"

WGMA took note of information from CASPCOM presented by Ms. E. Ostrovskaya regarding the available CASPCOM information resources and possible CASPCOM participation in drafting certain parts of the State of Environment (SoE) Report. The Secretariat informed the meeting that presently the SoE structure is being developed but this process strongly depends on availability of funds. WGMA agreed that as soon as the SoE structure was established CASPCOM would be informed of the concrete sections of SoE into which it would be invited to contribute.

On the agenda item 4 "Procedures for monitoring data exchange"

WGMA reviewed the provisions of the draft Protocol on monitoring, assessment, access to and exchange of information (hereafter – the draft Protocol) as of 21 February 2016 related to monitoring and data exchange and expressed satisfaction that proposals by the 1-st WGMA meeting (Baku, 20-21 January 2016) had been accommodated into the draft Protocol. As a follow-up, WGMA discussed principles for the original monitoring data exchange which later might become a part of the Protocol. Upon discussions, WGMA agreed as follows (with some reservations indicated below).

Subject to reporting and exchange are original data from all EMP stations, while data from national monitoring network are to be reported optionally. Generally, the data are to be submitted annually by the end of the year following the reported year but Azerbaijan and Turkmenistan felt that they might need more time to prepare their data for submission.

Data for all types of media (water, sediments, biota) sampled at the EMP stations are subject to reporting and exchange while the data from reported (exchanged) national monitoring stations may cover all or selected types of media. At the same time, as Azerbaijan proposed, exchanging of biota data could start at a later time when all countries would be prepared to make that type of observations.

To establish minimum data quality control procedures to be applied at the national level prior to data submission, WGMA agreed to review the relevant procedures used by the Black Sea Commission. A document describing such procedures developed by the Black Sea Commission is to be distributed among the WGMA members for their evaluation as to whether those procedures can be used in the Caspian Sea.

Data submission formats of the Black Sea Commission are also to be distributed for evaluation by the WGMA members as to their applicability to the Caspian Sea conditions.

Information on certified labs participating in the monitoring activities is to be attached to the submitted data, including name and postal address of the laboratory, name of the head, contact information of the head, short description of methods and instruments used to determine concentration of certain chemical substances.

The data are formally submitted to the TC Secretariat which forward it to the Caspian monitoring data centre, which is a responsible organization for the data accumulating, checking, compiling and managing, designated by COP.

WGMA did not come to an agreement regarding the nature of the monitoring data centre. The majority of countries believed that the existing Caspian Environment Information Center (CEIC) should be assigned to act as the Caspian monitoring data centre, while the Russian Federation expressed doubts regarding the CEIC ability to do so. To support this standpoint, Russian Federation informed the meeting on the existing technical requirements to such a data centre. Under these circumstances, the Secretariat expressed its readiness to consider the established technical requirements to the data centre and formally contact CEIC to examine their willingness to serve as the Caspian monitoring data centre.

Additionally, Russian Federation raised the issue of the status of observation of *Mnemiopsis leidyi* abundance within the Caspian Environment Monitoring Programme, which was expected to be put before COP-6 for formal approval. The Russian Federation stated that it was not technically prepared to that type of observations and requested its status to be changed from mandatory to optional. Other countries regretted such state of affairs stressing importance of these observations for assessing the state of the Caspian ecosystem as a whole. Russian Federation agreed to revisit this issue later.