Caspian Environmental Information Centre (CEIC)
https://ceic-portal.net/
(Note by the interim Secretariat)

Introduction:

Article 19.5 of the Tehran Convention provides for the development of a centralised database and information management system to function as a repository of all relevant data, serve as the basis for decision-making and as a general source of information and education for specialists, administrators, and the public at large.

By the time the Contracting Parties to the Tehran Convention met for their 3rd Conference (COP3) in Aktau, Republic of Kazakhstan, August 2011, preparations had started for the establishment of a Caspian web-based Environment Information Centre (CEIC). COP3 welcomed the progress and invited by letter of 8 December 2011, the Parties nominated National Environment Information Officers (NEIOs) to support and manage their country's participation and role in the Centre.

The actual development of the CEIC was sponsored by British Petroleum Exploration (Caspian Sea) Limited and coordinated on behalf of the interim Secretariat by GRID-Arendal. Meetings were held, and the NEIOs were trained early October 2012 at the premises of the European Environment Agency in Copenhagen and in Arendal. Progress was reported to and the CEIC was launched at COP4, in Moscow, the Russian Federation, December 2012 (TC/COP4/8 of 10 October 2012).

After the conclusion of the first phase of the BP CEIC project in 2014 a proposal for the second phase was developed and submitted to BP for funding. The proposal was captured in the Note by the interim Secretariat of 19 June 2014, circulated by email of 29 October 2014.

At COP5, in Ashgabat, Turkmenistan, 28-30 May 2014, the Ministers confirmed their recognition of the CEIC as the instrument for the collection, storage and dissemination of environmental information, and requested the (interim) Secretariat, hosted by the Regional Office for Europe of UN Environment, to coordinate and oversee the preparation of a 2nd State of the Caspian Environment Report.

After delays in the project approval process due to external factors the second phase project was approved by BP in June 2017. By letter of 21 July 2017 the Contracting Parties were requested to nominate or confirm their NEIOs. The list of NEIOs and their terms of reference are attached as Annex 1.

On 11 September 2017, GRID Arendal organized a first skype meeting of the Expert Group on the CEIC. The meeting addressed issues and procedures related to the operation of the CEIC, the scope of its database and its transfer to the Convention Secretariat upon its establishment in Baku,
Republic of Azerbaijan. The meeting also reviewed the proposals for the preparation of 2nd State of the Caspian Environment Report and was updated on the work of the Working Group on Monitoring and Assessment, both of which have a bearing on the CEIC development process.

In the fall of 2017 and during the first half of 2018, work on the CEIC continued supported by consultations and country visits of the Coordinator. Information about the purpose, upgrade work and usage of the CEIC since July 2018 is contained in Annex 2.

Annex 3 provides the roadmap for the transfer of the CEIC to the Convention Secretariat.

**Suggested action.**

The Conference of the Parties may wish to:

1. Express its gratitude to GRID-Arendal and BP Azerbaijan for coordinating and financially supporting the development of the CEIC portal;

2. Request the Secretariat in cooperation with GRID-Arendal to arrange for the transfer of the CEIC as proposed in Annex 3.
Annex 1

National Environmental Information Officer (NEIO) for the Caspian Environmental Information Center

TERMS OF REFERENCE

Background

The Caspian Environmental Information Center (CEIC) is aimed at the development of the web-based resource in support to the implementation of the article 19.5 of the Tehran Convention: the establishment of a centralized database and information management system.

The Center’s goal is to make reliable and high-quality data available to decision-makers on all levels in the Caspian region and beyond.

CEIC is a web portal, based on a virtual network of collaborating institutions in Caspian littoral states. The information supply to the CEIC is regulated on the basis of the Tehran Convention and negotiated agreements on information-sharing. It is the information tool of the Tehran Convention.

Overall Objectives

- To secure information-sharing through supporting the negotiations on and later implementation of the Protocol on Monitoring, Assessment and Exchange of Information;
- To work towards the harmonization and standardization of information relevant to the protection of the marine environment of the Caspian Sea and obtained in the context of the EMP;
- To make its operation sustainable by enlarging the network and to strengthen the cooperation and data exchange between the stakeholders in the Caspian Sea region at the national and sub-national levels;
- To support the national reporting under the Tehran Convention and the development of the Second State of the Caspian Sea Marine Environment Report.

Specific Activities

Within the context of the overall objectives the CEIC, National Environmental Information Officer will contribute to the implementation of the following outcomes and outputs:

Outcome 2

- Enlargement of the network and strengthening of cooperation and data exchange between the stakeholders in the Caspian Sea region at the national and sub-national levels
- Enlarged network of data contributors
- Further technical development and optimization of the CEIC portal
- Support the national reporting to the Tehran convention in the preparation of the 2nd State of the Caspian Sea Environment Report

Within the framework of the contract the NEIO will:

- Support the regional CEIC coordinator in conducting of the desk review "Assessment of information holders, existing data and national needs for reporting", related to the state of environment of the Caspian Sea, including GIS data, data sources, stakeholders and activities in the country related to the Caspian Sea environment;
- Act as the National Environmental information focal point with the Caspian Environmental
Information Center: establish and maintain connection to all identified national information holders, paying special attention to the private sector and academia, encouraging their use of CEIC web portal resources;

- Organize the collection, storage and distribution of data on the environment of the Caspian Sea and related socio-economic issues, providing to stakeholders the access to data from relevant government agencies and institutions, compliance reporting and monitoring, corporate data and research, academic research and other sources of information with the objective of enlarging the network of information providers and users;
- Publish and maintain the national data on the Caspian Environmental Information Center web portal, populating it with the relevant data, including, but not limited to: databases, GIS data (shapefiles)
- Together with the National consultant collect and analyze data, necessary for the preparation of the National report to the Tehran convention in the Unified Reporting Format, approved by countries and the 2nd State of the Caspian Environment Report;
- Assist in sustainable management of the CEIC portal, including: the set-up of stakeholders user accounts, set up the data collection electronic working groups and administer the users and their tasks, coaching user sessions, management of data quality, maintaining the data access policy, and data sources; coordination of data collection, harmonization and adequate presentation; management of the help-line to support information management platform tools, including contact directories, meeting schedules, events management, GIS maps and other web utilities; organize the translation of the relevant information in working languages of the Tehran convention (English and Russian); actively contribute to technical development and optimization of the CEIC portal.

Competences:

Corporate Competencies:
- Demonstrates integrity and fairness, humanist values and ethical standards;
- Promotes the vision, mission and strategic goals in line with the protection of the Caspian Sea;
- Ability to manage workload with minimum supervision;
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability.

Functional/Technical Competencies:
- Strong understanding of the Tehran convention and other related International Environmental conventions and protocols such as the Convention on Biological Diversity (CBD), Land Base Sources / Activities protocol (LBSA), the international Maritime conventions, the convention on Environmental Impact Assessment in a Trans-boundary Context (Espoo), the United Nations Framework Convention on Climate Changes (UNFCCC), the Ramsar Convention on Wetlands, etc.
- Skillful with computers and software, having experience with more than one operating system; experience with office tools, mind mapping, databases, XML, GIS tools and shape-files, schema and flowcharts (e.g. UML), project management tools (Gantt charts), and data visualization.
- Strong analytical, research and English/Russian writing abilities;
- Able to communicate clearly and effectively through e-mail and in person;

Required Skills and Experience:

Education
- University degree in environment related area natural sciences.

Experience
- At least 3 years of experience in relation to activities connected with the assessment of environment of the Caspian Sea;
- Sufficient institutional connection to government-managed information sources related to the state of the environment and socio-economic issues
- Experience with IT tools is required, including the use of content management systems, social
media, updating websites and use of standard Windows applications (Word, Excel, PPT) and Outlook;
Prior experience in a research or academic capacity is an asset;
Prior experience working with an international or multi-lateral organization is an asset;
Experience with maintaining websites is an asset;

Language Requirements
   Fluency and proficiency in English; or
   Fluency and proficiency in Russian; working knowledge of English;

Supervision

Working under the direct supervision of the project manager (GRID-Arendal) and in direct collaboration with the National Focal Point to the Tehran Convention.

Time frame

The position is set for the overall duration of 6 months applied in agreed time slots within the project duration period (08/06/2017 – 08/07/2018).

The contract for the services provided by and related compensation of the NEIO will be managed by GRID-Arendal / UN Environment.

List of the National Environmental Information Officers

Azerbaijan      Mr. Faig Mutallimov
Iran            Mr. Shahran Fadakar
Kazakhstan      Mr. Serik Akhmetov
Russia          Center of International Projects
Turkmenistan    Ms. Gozel Orazdurdiyeva
Objectives of the CEIC portal:

1. To secure information sharing through supporting the negotiations on and later implementation of the Protocol on Monitoring, Assessment and Information Exchange;
2. To work towards the harmonization and standardization of information relevant to the protection of the marine environment of the Caspian Sea and obtained in the context of the EMP;
3. To make its operation sustainable by enlarging the network and to strengthen the cooperation and data exchange between the stakeholders in the Caspian Sea region at the national and sub-national levels;
4. To support the national reporting to the Tehran Convention and the development of the 2nd State of the Caspian Environment Report.

Upgrade of the CEIC portal

The portal has been completely re-factored in order to upgrade the software standard and enable the following functions:

- Publishing national data by the Caspian countries independently in their own groups.
- Managing thematic sub-groups, where the stakeholders’ accounts are controlled by national focal points and group moderators. Users have associated access permission to the data and files managed by country moderators. There are five main country groups, one regional group and a group to support the work of the Tehran Convention Secretariat.
- Providing a framework to encapsulate the regular processes and work flows, such as the portal users registration, the publishing of files collections bundles, the geographical mapping and the data entry in the database.
- A secure File System that matches with the Group Framework, where the permissions can be restricted to certain roles among the group members or set as public. An easy to use interface to share files and tune their accessibility.
- A full-fledged interface for publishing collections of files with the authors, date of publishing, Unified Reporting Format categories, a web-page, and other relevant meta-data, and to illustrate the publication with a picture.
- A “Who is Doing What Where” stakeholders database, maintained by the countries, where the data on the organizations, the research institutes, governmental bodies, private companies and non-governmental organizations are collected and displayed, as well as the contact persons are listed. If necessary, access to the data can be restricted to the country group members.
- A News and Events Publishing Interface enabling the Secretariat and the countries to highlight the important news and events on the Home page of the CEIC Portal. The News and Events can be commented on and discussed by the readers, and shared on Facebook, Twitter, Google, LinkedIn or forwarded by email.
- A GIS Mapping Interface that enables users to enter document and illustrate Places in and around the Caspian Sea, that are shown on the Maps and whose details are shown on pop-up windows when clicked. Countries are provided with a special storage place for their GIS data files. A mechanism is in place in order to incorporate GIS Shape-files provided by the Countries into layers that are displayed on the Maps. Furthermore, the detail of the elements of the layers are shown in pop-up windows when clicked.
• A Real time chat system called “Rocket Chat” is integrated in the CEIC portal. The TC Secretariat and the Caspian countries have their own Chat Box. The portal users can be invited to the chats by moderators. This chat system is similar to Skype and is entirely hosted and managed within the CEIC portal infrastructure.

• Contextual help, Tutorial and Guidelines for Publishing on the portal are provided in English and Russian.

• The CEIC portal and its user interface is delivered in English and Russian. The interface for translating the site in the other National languages (Azeri, Farsi, Kazakh, Turkmen) is also installed.

The CEIC Portal is exclusively built on open source software: Virtual Server, with Ubuntu 16, SSH Encryption, PostgreSQL PostGIS database, Drupal 8, Emulsify Component Based Theming, NodeJs with Angular 2, OpenLayer 3, GeoServer, Rocket Chat, Varnish caching reverse proxy accelerator, and the Composer to ensure long-term maintainability.

Training and continued support was provided to the NEIOs by the CEIC Coordinator to ensure continual information-sharing on the portal. As a result, 243 collections of documents were published to the CEIC portal as of 24 August 2018.
Statistics of usage of the CEIC portal

Since July 2018, the statistics tracked by Google-Analytics on the new CEIC portal: 95 users from 10 countries, performing 337 sessions.

<table>
<thead>
<tr>
<th>Country</th>
<th>Users</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kyrgyzstan</td>
<td>17</td>
<td>133</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>Russia</td>
<td>10</td>
<td>29</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>8</td>
<td>48</td>
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<tr>
<td>Switzerland</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Iran</td>
<td>7</td>
<td>27</td>
</tr>
<tr>
<td>United States</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>China</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Norway</td>
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<td>44</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>95</strong></td>
<td><strong>337</strong></td>
</tr>
</tbody>
</table>

Environmental information holders’ database (Stakeholders DB)

Caspian environmental information holders, entered by the National Focal Points (Aug 25, 2018)

<table>
<thead>
<tr>
<th>Country</th>
<th>Contact Person</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azerbaijan</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>Iran</td>
<td>39</td>
<td>25</td>
</tr>
<tr>
<td>Kazakhstan</td>
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</tr>
<tr>
<td>Russia</td>
<td>106</td>
<td>81</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>334</strong></td>
<td><strong>204</strong></td>
</tr>
</tbody>
</table>
Transfer of the CEIC portal to the Tehran Convention Secretariat

1. Technical Handover

The CEIC regional coordinator will provide a Technical Handover Document covering all the details of the CEIC portal. The technical maintenance and support of the CEIC portal at the Secretariat will require an experienced IT person mastering virtual servers, internet protocols, Linux, Apache, Drupal, PostgreSQL, PostGis, PHP, Javascript, HTTPs requests, CORS, GIS Geoserver, OpenLayers and Rocket Chat. The technical hand-over to the IT coordinator of the Tehran Convention Secretariat will take five days.

2. Operational Handover

The operation of the CEIC portal for content publishing, backups, user accounts, group management, maps, support to the countries will require a professional with excellent information management skills, good practice with a wide palette of data management tools and techniques, including databases, queries, batch scripting in Linux and Quantum GIS. The CEIC regional coordinator delivers an operational user manual. The operational handover to a professional at the Tehran Convention Secretariat should take four days.

3. Porting the Virtual Server to the Secretariat

The porting of the CEIC portal to an IT infrastructure at the Tehran Convention Secretariat will take three days, assuming the that the virtual server with the requested characteristics is set up.

4. Integration of the TC website with the CEIC portal

The Tehran Convention website will be integrated with the CEIC portal after the transfer of the Tehran Convention Secretariat to Baku.