

Азиядағы өзара іс-қимыл және сенім шаралары кеңесінің (АӨСШК) Хатшылығы Қазақстан Республикасының Сыртқы істер министрлігіне және Анкара, Бейжің, Мәскеу және Нұр-Сұлтан қалаларындағы АӨСШК мүше мемлекеттерінің елшіліктеріне өзінің зор ілтипатын білдіре отырып, 2021 жылға арналған АӨСШК сенім шаралары жоспарының экологиялық өлшемі шеңберінде Иран Ислам Республикасы жүзеге асыратын іс-шараларға қоса берілген тұжырымдамалық құжаттарын жолдауды өзіне мәртебе санайды.

Қосымша:  
аталған 10 п.

Хатшылық сонымен қатар мүше мемлекеттерден 2020 жылғы 11 желтоқсандағы АЛТК Шешімдерінің 4 тармағына сәйкес 2021 жылға арналған АӨСШК сенім шаралары жоспары шеңберінде жүзеге асыратын іс-шаралардың тұжырымдамалық құжаттарын ұсынуын сұрайды.

Хатшылық осы мүмкіндікті пайдалана отырып, Қазақстан Республикасының Сыртқы істер министрлігіне және АӨСШК мүше мемлекеттерінің елшіліктеріне өзінің зор ілтипатын тағы да растайды.

Нұр-Сұлтан қаласы, 2021 жылғы 05 ақпан

**ҚАЗАҚСТАН РЕСПУБЛИКАСЫНЫҢ  
СЫРТҚЫ ІСТЕР МИНИСТРЛІГІНЕ  
ЖӘНЕ  
АӨСШК МҮШЕ МЕМЛЕКЕТТЕРІНІҢ  
ЕЛШІЛІКТЕРІНЕ**

Анкара, Бейжің, Мәскеу, Нұр-Сұлтан қалалары



**SECRETARIAT OF THE CONFERENCE ON INTERACTION  
AND CONFIDENCE BUILDING MEASURES IN ASIA**

**СЕКРЕТАРИАТ СОВЕЩАНИЯ ПО ВЗАИМОДЕЙСТВИЮ  
И МЕРАМ ДОВЕРИЯ В АЗИИ**

**№17-5/69emb**

The Secretariat of the Conference on Interaction and Confidence Building Measures in Asia (CICA) presents its compliments to the Ministry of Foreign Affairs of Republic of Kazakhstan and Embassies of the CICA Member States in Ankara, Beijing, Moscow and Nur-Sultan; and has the honour to forward the enclosed concept papers of events to be conducted by Islamic Republic of Iran under the Environment Dimension of CICA Plan of CBMs for 2021.

*Enclosure:  
as stated,  
on 10 p.*

Secretariat has the further honour to request the Member States to submit concept papers of events to be conducted by them within the framework of CICA Plan of CBMs for 2021, as per item 4 of SOC decisions of 11 December 2020.

The Secretariat avails itself of this opportunity to renew to the Ministry of Foreign Affairs of Republic of Kazakhstan and Embassies of the CICA Member States the assurances of its highest consideration.

Nur-Sultan, 05 February 2021



**MINISTRY OF FOREIGN AFFAIRS  
OF THE REPUBLIC OF KAZAKHSTAN  
AND  
EMBASSIES OF CICA MEMBER STATES  
Ankara, Beijing, Moscow, Nur-Sultan**



**SECRETARIAT OF THE CONFERENCE ON INTERACTION  
AND CONFIDENCE BUILDING MEASURES IN ASIA**

**СЕКРЕТАРИАТ СОВЕЩАНИЯ ПО ВЗАИМОДЕЙСТВИЮ  
И МЕРАМ ДОВЕРИЯ В АЗИИ**

**№ 17-5/69emb**

Секретариат Совещания по взаимодействию и мерам доверия в Азии (СВМДА) свидетельствует свое уважение Министерству иностранных дел Республики Казахстан и посольствам государств-членов СВМДА в Анкаре, Москве, Нур-Султане и Пекине и имеет честь препроводить концептуальные документы к планируемым мероприятиям Исламской Республики Иран в экологическом измерении Плана мер доверий СВМДА на 2021 год.

*Приложение:  
упомянутое,  
на 10 л.*

В соответствии с пунктом 4 Решений КСДЛ от 11 декабря 2020 Секретариат любезно просит государства-члены представить концептуальные документы к мероприятиям, которые будут проводится в рамках Плана мер доверий СВМДА на 2021 год.

Секретариат пользуется случаем, чтобы возобновить Министерству иностранных дел Республики Казахстан и посольствам государств-членов СВМДА уверения в своем весьма высоком уважении.

город Нур-Султан, 05 февраля 2021 г.



**МИНИСТЕРСТВО ИНОСТРАННЫХ ДЕЛ  
РЕСПУБЛИКИ КАЗАХСТАН**

**И**

**ПОСОЛЬСТВА ГОСУДАРСТВ-ЧЛЕНОВ СВМДА  
города Анкара, Москва, Нур-Султан, Пекин**

## Concept Paper of

### **Assessing Vulnerability and Planning Adaptation Strategies to Combat Sand and Dust Storm (AVPASDS)-Lessons Learned and Experiences in Iran**

#### **Background**

The Sand and Dust Storm (SDS) phenomenon are common in arid and semi-arid regions of the world and particularly in world “dust belt” in Northern Hemisphere that extends from the west coast of North Africa, over the Middle East, Central and East Asia. In fact, the North Africa and the West Asia Region are identified as the two main important areas for generation of SDS on Earth.

SDS are usually caused when the wind force passes the threshold value in susceptible area and loose sand and dust are exposed to strong wind velocity and removed from the dry surface. This is usually caused by either thunderstorm outflows, or by strong pressure gradients which cause an increase in wind velocity over a wide area.

Over the last decades, there has been statistically significant increase in frequency and intensity dust and sand storms in many part of the Asia. As such, SDS are being considered to be among the most serious environmental problems in the region and are seen as a man-made disaster given that the increasing incidence is in part being blamed on unsustainable land management practices and changes in land use, alongside the increasing aridity and drought events being seen in the region.

Sand and Dust Storm poses a severe and lasting challenge to many countries in the region and affects daily life of the people and hinders development efforts. It presents serious risks to the human health, property and environment. Impacts on human health include respirational and cardio-vascular problems, eye infections and in some regions, diseases such as meningitis and valley fever. Dust can carry irritating spores, bacteria, viruses and persistent organic pollutants. It can also transport nutrients to parts of the world oceans and affect marine biomass production. Other impacts include negative effects on ground transportation, aviation, industrial and social activities, agriculture and visibility. They can cause considerable hardship, loss of income, and disruption to communications.



The increasing incidence of dust and sand storms has raised concern amongst many countries over the past several years, and has put the SDS in the agenda of several international and regional meetings and organizations such as UNGA Resolutions 70/195, 71/219, UNEA II Resolution 2/21 and WMO Congress Decision Cg-XV/3.3.3.6, UNESCAP Resolution 72/7 to name a few. They member states and regional and international organizations participating in these events have acknowledged and recognized Sand and Dust Storms as a daunting challenge to the sustainable development of affected countries that required coordinated prompt measures to address it at national, regional and global levels.

### **Capacity building on SDS**

Given the complexity of the challenge of SDS in the region due to increasing population pressure in many areas, increasing climate variability and the trans boundary nature of dust storms, there is a critical need for capacity building and exchange of experiences and knowledge on driving factors, approaches and initiative for addressing SDS at national, regional and global levels. Combating sand and dust storms requires substantial capacity for risk reduction, adaptation and mitigation action.

### **Scope of Regional Workshop on SDS Adaptation**

Well-known mitigation measures in semi-arid areas include stabilizing soil surfaces through mulching, shrub and tree plantation, wind breaks, and the erection of barriers, for example, using dead vegetation. Since there are few options to halt these storms in the short or medium term, local adaptation and mitigation strategies will need to be elaborated. In the thirteenth session of the Conference of Parties, United Nations Convention to Combat Desertification, in Ordos, China, in 2017 the systematic impact and vulnerability mapping and assessments are advised as a critical measure for adaptation to SDS. Accordingly, Iran has initiated a national level vulnerably assessment and adaptation strategy planning project in 2020, to reduce the impacts of SDS on socio-ecological system.

In this context, the workshop on Assessing Vulnerability and Planning Adaptation Strategies to combat Sand and Dust Storm (AVPASDS)-lessons learned and experiences in Iran will provide a knowledge sharing platform for participants of CICA countries to discuss idea and exchange information on various aspects of SDS adaptation including, assessing vulnerability, measuring exposure, evaluating adaptation capacities and planning adaptation strategies for enhancing the stability of socio-ecological system.

It is expected that this capacity building and knowledge sharing initiatives could open new opportunities for the regional cooperation on SDS among CICA countries.

**Concept paper of**  
**Assessment of economics and social damages caused by dust in Iran**

**Background**

Dust storms are natural events that occur widely around the world especially in Asian arid and semi-arid regions with the vast distribution and existence of desert landscapes. The action of humans has created another source on the desert margins in semi-arid areas that previously were stable. Dust storms contribute to the spread of desertification through the transport and deposition of sediments that can destroy crops, habitation and infrastructure and render areas uninhabitable.

There are enormous costs in terms of direct damage to life and property but also in terms of income foregone. Development of robust and sophisticated tools to enable economic analysis of the real costs of dust storms is a high priority. Decision-makers need to know, based on cost-benefit analysis, how to respond to the perceived threats. Clearly there is need for more research into the economic aspects including a robust methodology for assessing damage cost.

More than half of the world population lives in the CICA Member States. In order to widen the consensus on further methods of addressing the crisis, preventive response to challenges and threats, as well as jointly combating the risks, developing and strengthening cooperation among the Member States is becoming especially relevant.

In this regard, the aim of this workshop is to share our experiences about the methodology and finding of social and economic costs estimation of dust impacts on different bio-resources and economic sectors of Iran.

**Negative externality and international conflicts**

Dust is an example of a negative externality on society. Policy choices that favor rapid industrialization, deforestation and drying up the rivers, lakes and wetland for production of goods and services, are imposing social costs on the countries, but the social cost of dust is not accounted for in their costs of production. This results



in a market failure in which individuals make their decisions based on their private marginal cost rather than the social marginal cost.

Also Due to the long-range transport of sediments impacting the neighboring countries, especially those downwind of the source, dust problem is a conflicting transnational issue in their nature and geographic spread, there was much interest in promoting international cooperation to find effect solutions, to coordinate research and share information.

### **Socio-economic impacts**

Dust is both a symptom of serious land degradation, and also a problem in its own right. The impacts of dust events are very vast including biological, economical, social, and even political. In this regard, Combating sand and dust storms demands political, social, biological, economic, educational and engineering approaches as well as the physical effort that has dominated efforts in the past. Some of the most important dust damages are:

- Increased risk of health-related problems (respiratory diseases, etc.).
- Direct damage to life and property
- Damage to infrastructure, transport communications
- scarifying crops and animals
- Restrictions on outdoor activities
- Encroachment of dust and sand on productive land, human settlements and infrastructure
- Migration in search of relief and refuge as a result of economic and political stress

Calculating the socioeconomic cost of dust is a difficult endeavor. It requires estimating the negative effects on health, losing animal and agricultural products, opportunity cost of outdoor activities, the cost of preventive measures, as well as estimation of prevention, avoidance and remediation costs make by different industries to combat with dust.



**Concept Paper of**  
**Drying of Wetlands and Rivers and Dust Spreading- Case Study:**  
**Management of Iran in Urmia Lake**

Lake Urmia (LU) is one of the important wetlands located in North-Western Iran; a vast hyper-saline wetland and at the same time a National Park, a collection of Ramsar Sites, UNESCO Biosphere Reserve and the largest inland lake in Iran. The lake and its' islands host populations of IUCN red listed endangered species including Persian Fallow Deer and Mouflon and a number of other biodiversity species including 115 birds as well as 120 plant species.

The lake has several other functions supporting local communities' livelihoods to settle in the surrounding areas. There are more than 5 million inhabitants living in the basin and threats of drying lake will have tremendous impacts on their daily livelihoods.

During the last decade different factors including continuous drought, increasing number of dams, over-abstraction from underground water, etc. led to shrinkage of the Lake. To overcome this critical situation of this important Lake, some measures new insights started with the aim of Lake Urmia restoration by different stakeholders such as Urmia Lake Restoration Programme, CIWP, DoE, MoJA, MoE which were very helpful. Besides that the restoration activities with the financial support of Gov. of Japan started in 2014 as well. The project emphasized on local communities' participation in restoration measures mainly Sustainable Agriculture practices at initial level. But the evolving nature of the project extended the scope of activities to other areas such as local economy and complementary tools during different phases of the project based on the lessons learnt. These efforts significantly affected the stability situation of the Lake.

The latest information from LU monitoring stations in December 2020 shows the water volume of lake has reached more than 3 billion and 210 million cubic meters (approximately five times compared to the lowest volume recorded in December 2014) with a water level of 1271.22 meters which shows an improvement (approximately 1.18 meter) compared to 2014. However restoring the lake to its optimum ecological situation with water level of 1274.1 meters would still need considerable efforts. The Integrated Management Plan of LU basin developed

under Conservation of Iranian Wetlands Project (CIWP) adopted by the cabinet in 2008 contains a set of priority activities under each thematic objective. Furthermore, the Cabinet also adopted a list of urgent actions based on the MP with clear responsibilities assigned to each authority for the restoration of the lake. The “wise use of land and water resources including agriculture water saving”, “urgent biodiversity conservation” and “awareness raising” are among the priority areas.

The 6 phases of the project granted by the Government of Japan since 2014 were designed based on the fact that more than 80% of the whole basin water is used by agriculture sector with a rather low-efficiency rate. Hence the great potential for water saving in the area releasing more water discharge to the lake was considered. This was also informed by the dependency of the majority of the basin communities on the agricultural practices for their livelihood, justifying their participation in LU restoration. Under the previous grants, intersect oral cooperation and local community participation has been practiced at LU basin under which Sustainable Agriculture Techniques, water-friendly livelihood, women micro-credit funds, etc. have been implemented in 150 villages located in LU ecological zone and welcomed by more than 12500 local people. In addition, in the seventh phase of the project, activities have been started in 41 new villages. The water-saving percentage varies from a maximum of 68% for some crops and a minimum of 26% water saving for the wheat crop, and a total average of 35%. The use of agricultural chemical inputs (Fertilizers and Pesticides) also shows an average of 40% decrease.

During this period, the 250 Government staff as well as 220 local experts (mainly in the form of local cooperatives) who were trained on socio-economic and technical aspects of Sustainable Agriculture and intersect oral cooperation, stayed engaged in the project pilot sites and played the role of resource persons to scale-up the approach at basin level. Besides, 200,000 local communities were targeted in the awareness-raising campaign and 1000 local communities, among which 400 were women and youth, were empowered by applying new tools and mechanisms including “Women Micro-credit Funds”, “water-friendly Livelihoods” and “Local Water Management Networks”.

This proposed project draws on the capacity built and the lessons learnt during last six years of the project implementation. This experience would present a piloted model for wetlands restoration in cooperation with the local people and other stakeholders.



**Concept Paper of**  
**Environmental Management of the Effects of Climate Change and Global**  
**Warming on Coastal and Marine Biodiversity**

The world's oceans cover approximately 70 percent of the Earth's surface, indicating their importance to the global environment. The oceans are comprised of diverse habitats that support biodiversity and marine wildlife. They provide humans with a wide variety of goods and services including foods, recreational opportunities, and transportation corridors. Based upon current scientific evidence, emissions of greenhouse gases from human activities are projected to cause significant global climate change during the 21<sup>st</sup> century.

Such climate change will create challenges for coastal and marine ecosystems that are already stressed from human development, land-use change, environmental pollution, and over-fishing. Critical coastal ecosystems such as wetlands, estuaries, mangroves and coral reefs are particularly vulnerable to climate change. Mangroves and coral reefs, which are already threatened by multiple stressors such as abusive fishing practices, pollution and invasive species, would also be at risk from changes in temperature increase, and sea-level rise. Such ecosystems are among the most biologically productive environments in the world. Their existence at the interface between the terrestrial and marine environment exposes them to a wide variety of human and natural stressors. The added burden of climate change may further degrade these valuable ecosystems, threatening their ecological sustainability and the flow of goods and services they provide to human populations. Significant environmental factors that affect the structure (e.g., plant and animal composition) and function (e.g., plant and animal production, nutrient cycling) of estuarine and marine systems and that are expected to be part of global climate change include temperature, sea-level rise, the availability of water and



associated nutrients from precipitation and runoff from land, wind patterns, and storminess. Increases in the severity of coastal storms and storm surges would have serious implications for the biodiversity.

Confirming the principles of sustainable development requires reasonable measures to prevent pollution or degradation to the environment; preserving biodiversity; balance between social, economic and natural environmental needs; minimize pollution or degradation of the environment; Conserving natural resources, prioritizing ecological principles and reversing the trend of resource degradation are basic requirement for sustainable development and improving the quality of human life.

Scientific assessments or observations and technology development can help reveal opportunities and risks associated with the climate system and support decision-making process. Expanding the knowledge base allows policy makers to select, understand and refine specific management strategies to increase the effectiveness of management efforts. Continued collaboration with public, government sectors and non-government organizations can ensure dissemination of relevant climate change information and data-integration into planning processes.