**Replies, inputs and comments**

**By**

**The Islamic Republic of Iran**

**on**

**“Call for input - Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment”, dated 2 September 2020.**

**The following replies, inputs and comments of the Islamic Republic of Iran to the questions mentioned in Special Rapporteur’s questionnaire on human rights and associated obligations related to water pollution, water scarcity and floods intends to inform his analysis and to contribute to his report, which will be presented to the Human Rights Council in March 2021.**

1. *Please provide examples of ways in which water pollution, water scarcity and floods are having adverse impacts on human rights. Adversely affected rights could include, among others, the rights to life, health, water and sanitation, food, culture, livelihoods, non-discrimination, a safe, clean, healthy and sustainable environment, and indigenous peoples’ rights.*

1. The water pollution, water scarcity, and floods have adverse impacts on human population and human rights. These are amongst the important factors that could undermine the rights to life, health, water and sanitation as well as sustainable environment.

2. It is axiomatic that lack of access to safe, sufficient and affordable water, sanitation and decontamination facilities has devastating effects on the right to life and health of people all over the world. There are sound examples indicating that the right to life of the people endangered by flooding and also other violations of human rights triggered by lack of access to safe water. Even pollution has important consequences for the realization of other human rights. A significant number of internal and external parameters adversely affect a safe, clean, healthy, and sustainable environment in the Islamic Republic of Iran. Indicative examples of internal factors in Iran could be briefly known as flooding and salinity of water, whereas imposition of unilateral coercive measures (UCMs) by the USA is an important analytic external factor. Some indicative internal and external factors are as follows.

**Example one, flooding in Iran and its adverse effects on right to life and other human rights:**

3.From mid-March to April 2019 widespread flash flooding affected large areas of Iran, most severely in Golestan, Fars, Khuzestan, Lorestan, and other 20 provinces (out of a total of 31areas). Due to the record rainfalls, more than 140 rivers have burst their banks and about 409 landslides recorded.In flooding of North Iran-occurred in 17 March, in Golestan and Mazandaran- 2 kids (due to the flooding) 5 adults (due to the flooding which capsized their boat) and two young couples lost their lives due to the landslides. Two more peoples were missing and 116 others wounded. The area received as much as 70 percent of its average annual rainfall in a single day! Several large dams overflowed. Many villages and several cities were evacuated. In second wave of theflooding, happened in March 2019, about 1,900 cities and villages have been damaged by severe floods across the country. Around 12,000 km of roads (about 36% of national road network) were damaged. The floods caused at least $2.2 billion (2019 USD) in damages, mostly due to losses in the agricultural industry. Hundreds of millions of dollars of damages inflicted upon water, sewerage and other essential infrastructures in Iran. 78 roads were blocked and the reliability of 84 bridges was questioned. Thus, the main culprit for those violations could be mentioned as climate change.

**4. Another example would be the irregular groundwater abstraction** that is one of the major challenges emanated from increased exploitation of groundwater due to the periodic droughts happening frequently in Iran and its ecosystem. This problem, in turn, deters development pace of the country and hampers realization of many economic rights of the people. Here, again the main culprit is assumed to be the climate change, exacerbated by other aggravating manmade factors.

**5. Third example is salinity of water as one of the biggest problems in Iran**. The total area affected by salinity is estimated to be about 15.5 million hectares or 9.4 percent of the total area of the country.

**6.Imposition of unilateral coercive measures**-erroneously dubbed as sanctions- during the natural and manmade emergency situations is an important aggravating external factor that indirectly causes violation of the right to life and health and breaches all economic, social, and cultural human rights in Iran and other implicated countries across the world. UCMs most adversely impinge upon the right to life and health of vulnerable people including women, children, senior citizens, and patients as indicated in abovementioned flooding case in the north of Iran. Another indicative example is the case of people with immunodeficiency, the details of which will be furnished independently.

7.The vivid example of the negative consequences of the US’sUCMs on human rights of the people in Iran could be subject to an independent thorough case to study the negative effects of the US’s UCMs on human rights of the people of Iran during the massive flooding in 2019. To cut a long story short, the US’s UCMs clearly deprived flood-affected people from having access to the international humanitarian aids. According to Red Crescent, two million people were in need of humanitarian aid due to the devastating floods- albeit, to no avail due to the US’s UCMs or its multidimensional restrictions imposed on Iran (and unfortunately exacerbated by over-compliance of the EU and other bigthird parties including but not limited to the intergovernmental organizations such as the World Bank). The 2019-2020 floods in Sistan~~,~~-Baluchistan, Khuzestan and Lorestan provinces of Iran are the best examples to showcase the inefficiency of international humanitarian assistance during that disasters deteriorated by the UCMs.

8.Due to the unilateral coercive measures of the USA or the so-called unlawful sanctions, Iran has experienced shortages of machinery such as sludge pumps, sensitive parts, medicine and hi-tech medical equipment and even materials and substances needed to purify water for the affected people. The-large-scale-massive-restrictionsimposed by means of application of unilateral self-administered US measures grossly violated all human rights of the disaster-stricken innocent people in Iran. These inhumane restrictions cruelly punished the innocent people, especially those vulnerable and in dire need of all kinds of emergency assistance in the remote areas of the country. They have been through a lot of sufferings, which in turn, emanated from US UCM related issues and unilaterally imposed restrictions, from banking and transfer of money to transfer of new technologies, equipment and delivery of international aid exacerbated with blockage of regional and international cooperation. For example, the related shortcomings deterred and postponed effective air lift operations of the stranded people as well as counter pollution activities in remote areas. Consequently, the domino effects of such shortcomings inflicted a lot of unwanted problems from loss of life to diseases due to water pollution that mainly victimized women, children and other people belonging to the vulnerable people.

9. Thorough elaboration of the magnitude of UCM related violations of human rights in area of water and sanitation requires independent documentary reports. Persons affected by disasters are entitled to the respect for and protection of their human rights in accordance with international law. The international assistance should be done in accordance with the principles of humanity, neutrality and impartiality, and on the basis of non-discrimination, while taking into account the needs of the particularly vulnerable people.UCMs disrupt the exercise of the rules and principles governing humanitarian assistance and partially or totally prevent them to be delivered.

*II. How has climate change exacerbated water-related problems?*

10. Climate change is about changes to earth we live on. The various consequences of climate change are rapidly increasing throughout the world. This dynamism affects people's livelihoods in various ways, such as loss of agricultural land and water scarcity reckoned as threats to achievement of right to food and drinking water.

11. Climate change has negative impacts on the quality of water. Increasing water temperatures, higher or lower groundwater levels, floods and droughts increase the threat of heightened micro-organisms, chemical substances and radiological hazards in drinking water. Impact of climate change on hydrological cycle is significant because all their components are affected negatively.

12. Fluctuations of water are related to climate change because the need for these resources is increased by evaporation in arid and semi-arid drier regions. The Islamic Republic of Iran, on average, receives 405 billion cubic meters of water from precipitation on its territory annually. From this amount, 282 billion cubic meters goes out of reach through evaporation and evaporationaspiration, 89 billion cubic meters turn into surface currents, and 34 billion cubic meters directly go to underground reservoirs. The country also receives 9 billion cubic meters of water from cross-border surface currents that add up the available surface water to 98 billion cubic meters.

13. That means the total amount of water available to the country from the surface and underground water will be 132 billion cubic meters, on average, every year. It is estimated that some 34 billion cubic meters of the consumed water will recycle in the underground water resources. According to statistics, 34 billion cubic meters of the surface water is being regulated by dams, from which 20.51 billion cubic meters are utilized. 17.59 billion Cubic meters of surface waters are being utilized through pumping and traditional methods. Small utility systems are also accounted for the utilization of some 2.5 billion cubic meters of surface water. Considering all those available mechanisms and methods for utilizing surface water it can be concluded that only 40% (or 40.6 billion cubic meters) of available surface water is being made available to consumers in different sectors. Consequently, mechanisms for utilization of groundwater, alluvial springs growth, and utilized throughout the country have made 71.7 billion cubic meters of water available to consumers from which 60 billion cubic meters are being consumed. The total utilized water from the surface and ground sources add up to 112.3 billion cubic meters, of which 100 billion cubic meters are being consumed in different sectors. The major water consumers within the country are agriculture and fish breeding sectors with 87.2 billion cubic meters (or 92.5% of available water), urban and rural sectors with 5.7 billion cubic meters (or 6% of available water), and mine and industry sector with 1.4 billion cubic meters respectively.

**Climate Change triggered the following water related changes in Iran and could continue in the future:**

14. The study of the effects of climate change on weather conditions and water resources in Iran is done by analyzing available long-term data and imaginable changes in water resources in recent years. Thus, it is possible to predict the future state of water resources to some extent. Scenarios of climate change on the hydrological cycle are significant because all their components are affected by changes in energy and mass exchanges. Fluctuations of water are related to climate change because the need for these resources is increased by evapotranspiration in warmer, drier, and sunnier regions.

15. The volume of evaporation in the country is increased by 27.3 billion cubic meters and recharge of the groundwater decreased by 20%due to the increase of two centigrade degrees in the temperature. The amounts of snowfall reduced by 5% and the snowmelt time shifted one month earlier. This trend will continue in the future. The possibility of severe droughts and severe floods will increase in the future. The precipitation trends that are less than 5 mm and 10 mm will continue to decrease. This indicates that-based on a pessimistic scenario-the main basin of the Persian Gulf and the Sea of Oman, which covers the southern part of the country, would be the most critical area in terms of reducing overflow.Marinating drinking water supply in most major cities of the country will be difficult in the future. Warmer and more humid conditions could increase prevalence of diseases in some regions and all these negative changes will adversely affect realization of human rights and in particular, economic and social rights including the right to development.

*III.To protect a wide range of human rights, what are the specific obligations of States and responsibilities of businesses in terms of addressing water pollution, water scarcity and floods? Please provide specific examples of constitutional provisions, legislation, institutions, regulations, standards, policies and programs that apply a rights-based approach to preventing, reducing, or eliminating water pollution, water scarcity and floods. Please include, inter alia, any instruments that refer directly to the right to a healthy environment and/or the rights to clean water and adequate sanitation.*

**16.**The right to water and sanitation is indirectly enshrined in a certain number of articles 3(12), 23, 31 and 43(1) of the constitution of the Islamic Republic of Iran ‘as the right to access decent housing, health & hygiene and public resources enjoyable by each and every citizen’. Article 31 of the constitution stipulates that: ‘Every individual Iranian and families have the right to have a dwelling that meets their needs. The government is required to provide all means for the execution of this principle by giving priority to those who are in greater need, especially peasants and workers’. It is obvious that a decent housing in Iran is normally equipped with reasonable modern facilities and services such as kitchen, washrooms, swage drains, hot water, liquid gas and electricity which are mainly transmitted or supplied via national gridlines, even almost in populated rural areas of Iran.Article 48 of the Constitution requires that utilization of all natural resources including water are non-discriminatory. The very same article implicitly recognizes the right to water and sanitation also set forth in articles 9, 12 and 43. In those articles, among other things, the Government is obliged to provide equal public access to the aforementioned rights and has the responsibility to eradicate poverty and deprivation of all citizens throughout the country.

**17.**Furthermore, Article 2 of ”the Charter on Citizen’s Rights” promulgated by President Hassan Rouhani in December 2016,crystallizes the fact that access to clean water is one of the citizens' right to a decent life.

**18.**Article 2 reads as follows: 'Citizens have the right to enjoy a decent life and necessities thereof, such as clean water, adequate food, promotion of health, environment, appropriate medical treatment, access to medicines, and medical, medicinal and health equipment, supplies and services in compliance with current standards of science and national standards, and safe and sustainable environmental conditions'.

**19.**Article 112 stipulates that: 'Protection of the environment—in which today’s generation and future generations shall have a productive social life—is a common duty. Accordingly, economic activities, which are accompanied by environmental pollution and irreversible environmental damages, are prohibited. Citizens have a right to environmental conservation, improvement and beautification and promotion of a culture of environmental protection. The Government shall take this right into consideration in its developmental, economic, social, cultural, defense and security plans, decisions, and actions, and shall combat pollution and environmental destruction'.

**20.** Article 113 of the same Charter confirms that: 'Every citizen has the right to enjoy a healthy and clean environment, which is free of various pollutants, including air pollution,water pollution, environmental pollution arising from harmful waves, radiation and shall have the right to be aware of the extent and consequences of existing environmental pollutants. Executive bodies will take due measures for reducing environmental pollutants, particularly in big andmega cities'.

**21.**Therefore, given that the trans-sectarian nature of water and its basic role in all aspects of a sustainable human life, health, and socio-economic development is well-established as a right, the Government is duty-bound to ensure its realization.

22. The Islamic Consultative Assembly (Majles) passed the following legislations on water and water pollution: Law on Proper Use of Water Resources (1982); Law on Environmental Protection against Water Pollution (1984); Law on Economic, Cultural, and Societal Development (1989); Law on Protection against Natural Environmental Damages (1991); and Law for Environmental Protection and Development (1991). In 1993, it ratified “Regulations for prevention of water pollution” which elaborates water pollution in 21 articles.

**23.**Furthermore, the Islamic Republic of Iran has introduced the principles of sustainable development into its legal framework, planning system and its laws and regulations. For example, five Development Strategy Plans since 1989 have directly or indirectly addressed the water and environment related issues. Moreover, Article 110 of the Constitution, determining the "general policies of the Islamic Republic of Iran," sets out regulations that address the public and private utilization of natural resources, including water resources, environment and land management. In addition, the Supreme Water Council has been established to make policies, to coordinate water supply, to manage water distribution and water consumption. Under Article 138 of the Constitution, bynature,the decisions of ‘the Council’ are binding for all the relevant bodies.

**24.** After establishment of the Expediency Council in 1988 -during 2003 to 2020- a series of general policies on management of ‘natural resources; water resources; land management and environment’ were formulated and then adopted to effectively achieve sustainable development goals in Iran**.**

**25.** According to the national law, all water bodies (rivers, lakes, seas, etc.) are public property and the government is responsible for their management. After the Islamic revolution in Iran in 1979, the first bill on water related issuesadopted in 1982. Based on that legislation, allocating and issuing permits to use the water for domestic, agricultural and industrial purposes is the responsibility of the Ministry of Energy. The Ministry of Jihad-e-Agriculture is responsiblefor distribution of water amongstfarmers for agricultural activities andalso for the collection of the pertinent fees. Also, water and wastewater companies are in chargeof distribution of water in urban and rural areas.

26. The Department of Environment (DOE) is responsible forthe constant control of thequality of water and to monitor water pollution issues as well as water resources. Department of Environment (DOE) is responsible for preparation of the environmental protection policy, the laws, directives, systems necessary for evaluating the impacts of social and economic development projects, particularly irrigation and hydropower projects, water pollution of the environment and following up their implementation by public and private sectors.

27. Control of water pollution is an important responsibility required in infrastructure and management plans. This control can protect the water body from wastewater. There are more than 300 units of environment laboratories and many lab-related academy units as well as private sector facilities serving this purpose. More than 51% of the urban population is covered by wastewater collection and treatment or recycling facilities.

28. The two following ministries plus one Vice President are directly in charge of providing all required draft water legislations, mobilization of water resources as well as assessment and development of all pertinent activities, namely: the Ministry of Jihad-e-Agriculture (MOJA) and Ministry of Energy. MOJA is responsible for supervising rain-fed and irrigated crop development. It is in charge of subsurface drains, tertiary and quaternary canals as well as farm development and irrigation techniques planned and operated by the Provincial Agricultural Organizations and the Deputy Ministry for Infrastructure Affairs of the Ministry of Agriculture. On the other hand, The Ministry of Energy (MOE) has two responsibilities namely‘supplyof energy & water resources’. The ministry is in charge of construction of giant hydraulic structures including irrigation dams and primary and secondary irrigation and drainage canals for transfer and distribution of water.

**29.** Within the MOE, the Water Affairs Department (WAD) is responsible for overseeing and coordinating the planning, development, management, and conservation of water resources. The WAD consists of the following sections: Water Resources Management Company (WRMC), Provincial Water Authorities (PWA), Irrigation and Drainage Operation and Maintenance Companies (O&M). WRMC is the mother company that manages all water sectors within the Ministry of Energy, except as drinking water distribution for rural and urban areas. The PWAs are responsible for the water sector in each province including irrigation and drainage development and operation. Drinking water distribution is the responsibility of provincial water and wastewater companies. O&M companies are responsible for modern irrigation and drainage operation and maintenance. 49 percent of the shares of these companies belong to the Ministry of Energy and 51 percent belong to private sector. There are 19 O&M companies which are working under the supervision of the PWAs.

IV. If your State is one of the 156 UN Member States that recognizes the right to a safe, clean, healthy and sustainable environment has this right contributed to preventing, reducing, or eliminating water pollution, water scarcity and floods? If so, how? If not, why not?

30. Iranis one of the 156 UN Member States that recognizes the right to a safe, clean, healthy and sustainable environment. So, please see answers to Question 3 in paragraphs 16-29 above.

V.Please provide specific examples of good practices in preventing, reducing, or eliminating water pollution, water scarcity and floods. These examples may occur at the international, national, sub-national, or local level. Examples may involve water quality and quantity monitoring; guaranteeing procedural rights (e.g. public access to water quality information, public participation in decision-making about proposed uses of water, access to remedies); water use and water quality legislation, regulations, standards, and policies; and initiatives to reduce water consumption and/or water pollution from specific sectors (e.g. agriculture, electricity generation, industry, transportation, domestic use). Where possible, please provide evidence related to the implementation, enforcement, and effectiveness of the good practices.

31. Water management and its protection in Iran have a history, legacy and a culture rooted in ancient civilization of Iran which has been culminated during ages. Thus, the existing comprehensive legal system and its backbone ingrained practical methods such as constructing underground dams and Qanat water resources deserves to be known worldwide, to share Iran’s experiences and culture as the best practices by other countries. Indicative examples of the enacted bills in our comprehensive legal system, as well as an outline of our recent best practices are as follows, respectively.

**An outline of the examples of our good practices:**

32. An indicative list of our best practices -achieved under the immense pressure of the illegal and inhumane unilateral coercive measures of the USA and its accomplices- are as follows. The outline indicates our resolve to realize the right to *safe drinking waterand the right to sustainable environment*, despite the illegal unilateral measures applied against Iran. This determination, in turn,could inspire other countries.

1. Phase-one of the most recent mega-project constructionto treat and transfer water from the Persian Gulf to the central areas of Iran, including Sirjan, inaugurated in 5 November 2020 by President Rouhani, intends to guarantee sustainable water for all.
2. Our knowledge based companies and the skillful Iranian engineers and manpower construct dams, high-tech water transmission projects and manufacture sophisticated power generating turbines and other pertinent equipment. Knowledge based factories such as MAPNA are leading examples. Other developing countries could simply share our experiences.
3. The Islamic Republic of Iran has recently operationalized ‘Class F’ combined cycle power plant projects, running on municipal wastewater to feed power plants and steam water productions required by the steam cycle, to impact on conserving water resources in areas with shortages of water. The water and steam cycle is designed and the boiler specifications of these power plants are equipped with a boiler water recovery system outlet, which leads to around 50% reduction in water consumption. This experience could assist initiation of renewable energy and green facilities in other countries, especially the neighboring countries.
4. The Ministry of Energy of the Islamic Republic of Iran is quite capable and committed to implement further mega-projects to transfer huge amounts of drinking water from across the country to the stressed provinces through canals under supervisory of the Department of Environment with public sector participation and financing.
5. Steel companies such as Mobarakeh run their highly-water consuming activities from municipal sewages and effluents in order to save water consumption. This policy and the practice help the industry to continue to operate in areas with water scarcity and water shortages.
6. The Sugar Cane and Byproducts Development is another industrial example that reduced the water consumption by %25–%30 through employing linear sprinkler irrigation plan in sugarcane fields to improve the irrigation management of the fields.
7. The country's steel companies, such as Khuzestan, undergo water treatment before returning the sewage back to the rivers. A large volume of effluents from the fields is pumped back to these canals using several high-pressure pumps in the main routes and places close to the inlet channels, and is reused by mixing with raw water that help the industry to save %20 clean water and have the potential to further increase the efficiency. In addition, a large part of the municipal effluent is directed to agriculture utilization after treatment and safe disposal. This process not only saves drinking water, but also meets the needs of the agriculture sector. It should be noted that the quality of treatment is supervised by the full supervision of the Department of Environment under the strict governing laws of the country. Furthermore, there are intensive studies underway to measure the possibility of revitalization of the wetlands by feeding the wetlands by the treated waste water.

**Enacted bills in our comprehensive legal system**

1. The comprehensive legal system, still practical, is comprised of many legislations or public general acts. For example, one of the very first legislations enacted since 1928, named: 'Civil Code' transferred the ownership of the water resources into the public property and regulated the public and private ownership in Iran in its articles 25, 96, 136, 138, 139, 150 and 594 for the first time. Since then, numerous legislations have been enacted indicating the importance of water and the public trend and tendency to reduce water contamination and water pollution. Examples are as follows. ‘The general bill protecting water sanity; regulating water ownership and water resources; around 30 distinct water management acts, including but not limited to the 'Water Law and Methods of Nationalization of Water'; 'Law on Preserving Groundwater Resources'; legislation on Protection, Restoration and Management of the Wetlands of the Country, Law on Development and Optimal Use of the Potable Water in Urban and Rural Areas, Statute of Water Resources Management Company of Iran, Law on Sewerage Development Projects and Reconstruction of Water Delivery Systems, etc.’
2. A system of practical regulations or code of conducts (rather 60 instructions) translated the aforementioned enacted legislations into action for effective realization of the right to access water, namely on following areas: ‘Groundwater Monitoring Instructions; Implementing the Environmental Impact Assessment Plan of the Projects; Framework for Identification and Assessment of Environmental Hazards; Instructions on How to Issue a water Packaging Permit for Drinking Purposes; National Drinking Water Quality Strategy 2011- 2025; Strategies for Long Term Development of the Water Resources of the Country; Instructions for Assessing the Environmental Impact of Tourism Projects in the Margins of Water Resources (Rivers and Dam Reservoirs)and Instructions for Water and Wastewater Hygiene Measures to Prevent and Control Water-borne Diseases’. The instructions are mostly focused on water management, watershed management, prevention of pollution, water extraction, prevention of land erosion and floods, and are accessible via following link: <http://waterstandard.wrm.ir/>.

33. The Department of Environment also has important executive instructions in the field of soil erosion and water pollution, which includes but not limited to Waste Management Law, Executive regulations of the Waste Management Law, Criteria and methods of environmental executive management of electrical and electronic waste, Executive regulations for road transport of hazardous materials, etc.

*VI.Please identify specific challenges that your government, business, or organization has faced in attempting to employ a rights-based approach to address water pollution, water scarcity and floods and the impacts of these problems on human rights.*

34. An outline of the specific challenges could include restrictions and limitations of transfer of new technologies; use of out-dated and obsolete machinery; scarcity of water resources; pollution of environment and water resources especially due to the external root causes such as climate change effects; lack of financial resources, lack of international cooperation and international assistance by intergovernmental bodies such as Word Bank; frequent natural disasters such as droughts and flooding, exacerbated by political factors such as foreign occupation and non-stop challenges caused by, and beyond- further deteriorated by unilateral coercive measures of the United States of America- are among our leading challenges to address water related problems and human rights.

 35. The negative effects of UCMs on water and environment are more devastating and collateral when occurs in the context of climate change as a global catastrophe. Unilateral coercive measures can also indirectly affect health through water pollution. Countries faced with UCMs experience shortages of materials and substances needed to clean, recycle or purify polluted waters. This, in turn leads to less clean accessible water. Polluted or untreated water cause an outbreak of diseases among the people, particularly children and vulnerable people.

36. Scenarios of climate change on the hydrological cycle are significant because all their components are affected by changes in energy. Fluctuations of water are related to climate change because the needs for these resources are increased by evapotranspiration in warmer, drier, and sunnier regions.

37. The Islamic Republic of Iran, on average receives 405 billion cubic meters of water from precipitation on its territory annually. From this amount, 282 billion cubic meters goes out of reach through evaporation and evapotranspiration, 89 billion cubic meters turn into surface currents, and 34 billion cubic meters directly go to underground reservoirs. The country also receives 9 billion cubic meters of water from cross-border surface currents that add up the available surface water to 98 billion cubic meters. That means the total amount of water available to the country from the surface and underground water, on annual average, is 132 billion cubic meters. The ability of the country to manage the remaining is heavily impacted by the unilateral coercive measures of the United States of America through hampering import of new technologies.

37. It is estimated that some 34 billion cubic meters of the consumed water will recycle in the underground water resources. According to 2006 statistics, 34 billion cubic meters of the surface water is being regulated by dams, from which 20.51 billion cubic meters are utilized. 17.59 billion Cubic meters of surface water are being utilized by pumping and traditional methods. Small utility systems are also accounted for the utilization of some 2.5 billion cubic meters of surface water. Considering all those available mechanisms and methods of utilizing surface water, It could be concluded that only 40% (or 40.6 billion cubic meters) of available surface water is being made available to consumers in different sectors. Consequently, mechanisms for utilization of groundwater, alluvial springs growth utilized throughout the country have made 71.7 billion cubic meters of water available to consumers from which 60 billion cubic meters are being consumed. The total utilized water from the surface and ground sources add up to 112.3 billion cubic meters, of which 100 billion cubic meters are being consumed in different sectors. The major water consumers within the country are agriculture and fish breeding sectors with 87.2 billion cubic meters (or 92.5% of available water; urban and rural sectors with 5.7 billion cubic meters (or 6% of available water) and mine and industry sector with 1.4 billion cubic meters (or 1.5% of available water) respectively.

**Summary Result of the Climate Change Impact on Water Resources in Future Periods are as follows:**

38. The increase of two centigrade degrees in the temperature enlarged the amount of evaporation to 27.3 billion cubic meters and also decreased the total sum of recharge of the groundwater by 20%. The amount of snowfall reduced by 5% and the snowfall time span or period turned one month earlier, also the snow level increased to 200 meters. This trend will continue in the future. The possibility of severe droughts and severe floods will increase in the future. The precipitation trends that are less than 5 mm and 10 mm will continue to decrease. This indicates that the main basin of the Persian Gulf and the Sea of Oman, which covers the southern part of the country, based on the pessimistic scenario, would be the most critical area in terms of reducing runoff. Managing drinking water supply will be difficult in most major cities of the country in the future. Warmer and more humid conditions increase the prevalence of diseases in the tropical country.

39. At present, Iran is facing many environmental challenges due to climate change drought and dust storms, which have adverse effects on the economic and social situation of the people. The unilateral coercive measures have a double impact on the economic and social situation in the North West of Iran; Lake Urmia is part of a unique biodiversity rich ecosystem of also freshwater wetlands and rivers that are essential to the livelihoods of more than 5 million people living in the basin. The Ramsar Site –which is also a UNESCO Biosphere Reserve and a National Park – had been shrinking at an alarming rate. Three years ago the lake contained only 0.5 billion cubic meters (bcm) of water – down from the massive 30 bcm it used to contain when full. In terms of surface area covered, the lake’s 5000 square kilometre surface had dwindled to 500 km2 in 2013. Now it is back to 2,300 km2 - although much of this water is very thinly spread.

40. It should be noted that environmental issues are important to the world and the problems caused by the damaging environment will affect the rest of the world. So, undoubtedly negative environmental consequences of broad unilateral coercive measures on Iran will affect the environment of the region and the world. These concerns in the areas of air, water, land, and biodiversity, have resulted in environmental and social NGOs' criticism about the UCMs against Iran. The removal of unilateral coercive measures will not only improve air quality and environmental conditions in Iran but also will help to decrease environmental concerns in the region.

*VII. Please specify ways in which additional protection is provided (or should be provided) for populations who may be particularly vulnerable to water pollution, water scarcity and floods (e.g. women, children, persons living in poverty, members of Indigenous peoples and traditional communities, older persons, persons with disabilities, ethnic, racial or other minorities and displaced persons). How can these populations be empowered to protect and improve water quality and availability?*

**41.**The Supreme Water Council is the regulator, policy maker and coordinator of clean water supply, its proportionate distribution as well its consumption, countrywide. During the COVID 19 pandemic, on estimate 3 million disadvantaged households in Iran enjoyed support packages including payment of water fees and water charges. Furthermore, subsidies and preferential rates applied to protect and assist the vulnerable people. This practice is in line with article 138 of Constitution of the Islamic Republic of Iran. The decisions of this council are binding for all the relevant bodies.According to the national law, all water bodies (rivers, lakes, seas, etc.) are public property and the government is responsible for their proportionate and proper management.

**42.** The first pertinent domestic law on water in the Islamic Republic of Iran was approved in 1982 after the Revolution and enforced thereafter. In accordance with that law, water and wastewater companies are responsible and operating to fairly distribute water and pertinent sewage facilities for domestic use in urban and rural areas under the supervision of The Supreme Water Council.Department of Environment is responsible for round the clock monitoring of the quality of water, water standards and water pollution throughout the country, specifically for disadvantaged groups.DOE performs its responsibilities under established regulations for gridline-related issues, indicator of water quality and water pollution, low fair water distribution, sewage and water network operation. Maintenance of clean and standard water for all, with emphasis on rural areas and disadvantaged groups has been one of the top priorities of Iran in relevant policy makings processes.

*IIX. How do you ensure that the rights of environmentalists working on water issues (environmental human rights defenders) are protected? What efforts has your Government or business made to create a safe and enabling environment for them to freely exercise their rights without fear of violence, intimidation, or reprisal?*

**43.** In our domestic laws, in particular the most recent legislations adopted, the right to file a complaint in the field of environment is recognized and guaranteed. Dissemination & Free Access to Environmental Information is defined to be unrestricted in the pertinent piece of legislation adopted in 2008. Moreover, article 2 of the Charter of Citizenship (2016), guarantees the right to a healthy environment, sustainable development and the right to a healthy and favorable environment for all citizens, without any prejudice.

**44.** In practice, rescue of Lake Urmia is a vivid example indicating the active participation of all environmentalists including NGOs, academia and individual activists cooperating neck and neck with CIWP, DOE and other organizations to rescue the lake and its environment. Albeit, main challenge remains to be lack of technical cooperation and scarcity of international financial resources mainly due to imposition of illegal and inhumane Unilateral Coercive Measures by the US and its accomplices. It is very unfortunate that individual activists cannot single-handedly afford to contribute to advancement of specific large scale projects such as ‘Integrated Management Plan for Lake Urmia Basin” without meaningful contribution of international organizations such as the World Bank and The International Monetary Fund (IMF)! Disguising politically motivated foreign campaigns well-orchestrated and trumpeted as environmental human rights activism or environmental networking cannot simply materialize projects as such! Therefore, genuine international activism should not simply ignore and circumvent the major root causes, including the macro-level culprit that unravels already existing international treaties, agreements and international norms. The fact of the matter is that the blind dwindling unilateralism hinders meaningful international cooperation in such an important international activity.

*IX. There is substantial evidence that the* ***actions of high-income States*** *(from high levels of material consumption to high levels of greenhouse gas emissions)* ***are linked to adverse effects on water availability and water quality in low and middle-income States****. What are ways in which high-income States should assist low-income States in responding to and preventing water pollution, water scarcity and floods?*

**45.**Indeed, various actions and behaviors of high-income States including but not limited to: high levels of material consumption; high levels of greenhouse gas emissions; United States withdrawal from the Paris climate Agreement; US withdrawal from JCPOA; application of arbitrary and illegal unilateral coercive measures or sanctions against sovereign member States of the United Nations that disrupts the dynamism of sustainable development in targeted countries including Iran; hiring mercenaries and terrorists to disrupt environmental projects, burning jungles, disrupting water gridlines, facilities and projects (please check MEA TV, Radio Farda, Man-o-to TV and their pertinent sites for further clues and documents supporting the facts); and systematic and well-orchestrated infiltration into the environmentalist networks of activists and if possible, trying to turn them into the leverage of political activism and regime change (as done in 1952 coup d’état against Dr. Mohammad Mossaddeghalbeit, under a different guise) tops the indicative list of inhumane actions of the arrogant high-income States such as the USA to derail the process of development, including but not limited to the environment, water availability and water quality in independent middle-income States such as the Islamic Republic of Iran.

**46.** The Islamic Republic of Iran is seriously concerned that the overall situation of human rights in Iran, in particular the enjoyment of a safe, clean, healthy and sustainable environment remains under the pressure of systematic, cruel, illegal and unlawful unilateral coercive measures of the Government of the United States of America, or in better words, the economic terrorism with its so-called maximum pressure policy that adversely impacts the overall situation of human rights in ~~the Islamic Republic of~~ Iran in macro level.

**47.** In this context, it is crucial to take the importance of assessing the environment situation in a very balanced and impartial manner. Such method or manner could clearly signify and differentiate the specific role and interplay of a set of external factors vis-a-vis pertinent internal factors. For example the negative impacts of UCMs on the environment are not simply limited to air pollution, water availability and water and sewage quality. Placing restrictions on the use of technology in fact damages Iran's water resources, and causes overuse of nonrenewable resources. Therefore, UCMs -which are erroneously dubbed as sanctions- impose irreversible damage on the environment in the Islamic Republic of Iran and other targeted countries.

**48.** Furthermore, it should be noted that environmental issues are important to the world and the problems caused by the damaging environment will affect the rest of the world. So, the negative environmental consequences of broad sanctions on Iran undoubtedly will affect the environment of the region and the world consequently. Unfortunately, serious environmental concerns on air, water, land, and biodiversity, did not brought enough international cooperation and condemnation of the unilateralist activities of the arrogant rogue regime. Therefore, the international condemnation and effective confrontation with malign unilateralism, not only brings about peace, security and cooperation, but also improves air quality and environmental conditions in Iran through removal of UCMS. A meaningful cooperationalso will helpreduction ofthe environmental concerns in the region and the whole worldas well.

**49.** We do not expect the so-called arrogant high-income States to assist other countries, but rather, first and foremost, what we do require is a genuine international cooperation of all non-arrogant and responsible powers and independent countries to unite and get ready to face and foil the malign unilateralist activities of a rogue State and prevent further catastrophic destruction of the international environment.

**50.** A set of clear questions and an appropriate level of analysis will assist impartial readers to study and understand the specific role of the systematic, cruel, illegal and unlawful unilateral coercive measures of the Government of the United States of America and its positive correlation- with enjoyment of a safe, clean, healthy and sustainable environment in Iran. Impartial studies indicate that the recent socio-economic challenges in macro level, including resource constraints are emanated from, or in turn associated with the external factors and especially to the imposition of unilateral coercive measures, the steep drop in international oil prices, and the effects of the COVID-19 pandemic and other associated restrictions or factors that adversely impact economic rights, including the enjoyment of a safe, clean, healthy and sustainable environment.

**51.**The U.S. has adopted inhumane unilateral coercive measures to spearhead its notorious and arrogant policy of exerting the so-called maximum pressure against Iranian nation. That policy and its inhumane and reckless application not only adversely affected many aspects of human rights of the people in Iran, including the enjoyment of a safe, clean, healthy and sustainable environment, but coupled with clandestine interventionist activities of its mercenaries, in many cases disrupted the public safety, public order, public health and the fundamental rights of the people in the Islamic Republic of Iran, inflicted exceptional and unwarranted limitations or restrictions set forth in articles 12 (3), 18 (3), 19 (3), 21 and 22 (2) of the ICCPR, for which the external factors should be held responsible.

**52.** The unlawful withdrawal of the Government of the United States of America from the Joint Comprehensive Plan of Action (JCPOA) and the illegal imposition of its unilateral sanctions against the people and the Government of the Islamic Republic of Iran which is a clear violation of its obligations under international law, international human rights law and humanitarian law should be taken into consideration as an independent variable to study the enjoyment of a safe, clean, healthy and sustainable environment.

**53.** Moreover, the European Union has also been unable to enforce the so-called “blocking statue" and fulfill its JCPOA commitments in practice, with the EU officials even maintaining that considering the nature of the international banking system, the blocking statute may not have a considerable effect as many banks use the USA financial system and the dollar in their transactions. Besides, burdened by the heavy, oppressive U.S. pressure, the three European countries have been unable to successfully and effectively launch the so-called SPV, with U.S. officials threatening to sanction the country hosting or the banks cooperating with the mechanism. This fact,in turn adversely impacted the enjoyment of a safe, clean, healthy and sustainable environment in Iran and the region consequently.

**54.**The Government of the United States of America should be condemned and held responsible for impacts of its cruel, unlawful and unilateral coercive measures. Direct responsibility of this failure takes no heed of the fact that the U.S. Government is the principal culprit and driving force behind economic problems in Iran, especially the specific problems and failures to counter COVID-19 pandemic more effectively.

**55.** The widespread negative impacts of unilateral coercive measures have affected different areas of activities and infrastructures in Iran, the exhaustive list of which is subject of an independent lengthy report. It is well recognized that UCMs have a very detrimental effect on the economies of the targeted state, thus in turn, adversely impact the enjoyment of a safe, clean, healthy and sustainable environment.

*X. For businesses, what policies or practices are in place to ensure that activities, products, and services across the entire supply chain (extraction/sourcing, manufacturing, distribution, sale, and end-of life management) minimize water use and water pollution and meet human rights standards, especially those articulated in the Guiding Principles on Business and Human Rights?*

58. As earlier elaborated in question No.6, a certain number of policies or practices are in place to ensure that activities, products, and services minimize water use and water pollution and meet human rights standards and are in line with our adaptation Strategies in Water Resources. An indicative and brief list of which is as follows.

59. In our policies and practices, the water sector has a unique role in sustainable development, food security, and people’s health, therefor; the capacity of the ecosystems and the climate situation optimal utilization of water resources are high in the agenda of all pertinent bodies in the Islamic Republic of Iran.

60. Resource management, especially water consumption in Iran is one of the strategic and priority issues. Mines and mining industries, as one of the consuming sectors of water resources, addressed to make policies to carry out supervisory, executive and legislative measures in order to eliminate the challenges and damages caused by inappropriate patterns of water consumption and wastewater management. The fact is that the highest water consumption is related to the production of gold and then the copper metals. In contrast, the sand and cement industry have the lowest water consumption. Steel and pelletizing plants in the country need a major overhaul of water resources management and reform of water consumption and recycling processes. In contrast, copper mills in the concentrating and smelting sector have largely been able to manage water consumption and bring their performance closer to international standards. In case of gold metal, unfortunately, water consumption in Iran is about five times the global consumption; therefore a guideline is under development.However it should be noted that the unilateral coercive measures remains to be one of the main impediments to import new and efficient technologies.

61. The Sixth Development Plan of the Islamic Republic of Iran addresses the water and environment challenges as one of the foundations of the Plan. According to the Plan, the government is obliged to cover water and environmental projects in its budget bill. Under Article 35 of the Plan, the government is obliged to address water scarcity, water right of aquifers and the required remedies to recover water level through introducing regulatory measures for steel, alloy steel and mineral companies to enhance or replace cooling systems and washing raw materials. Furthermore, under the Article 37 of the same Plan, the government is obliged to improve the sewage collection and treatment facilities of industrial parks. Examples are as follows.

1. The Nationalization of Water Resources Act (1968) is adopted, among other things, to determine the legal limits of water use. This piece of legislation requires that the use of water must be optimal and in line with development pace. That further paves the way to prevent waste of water, and even, in case of violation, the operation of the factory or workshop will be prevented. In line with Article 25 of the law, use of groundwater -except for provisions set forth on digging any type of wells and aqueducts- must be done with permission of relevant authorities to ensure due respect for hydro geological requirements of the region providedthere in. The act explicitly states that water pollution is prohibited and that firms or institutions in charge of supply of water to urban, industrial, or mineral users are required to treat their sewage afterwards. Those who breach the law will be legally sued and punished appropriately by legal authorities. The Act on Prevention of Water Pollution prohibits any action that causes water pollution. According to this law, the Department of Environment (DOE) is obliged to identify various sources of water pollutants and take appropriate action accordingly. Water pollution standards are prepared and implemented by the organization in cooperation with the relevant ministries and institutions listed in Article 4(1) of the legislation, and also the pertinent regulations setting measurements, methods, modalities and other required provisions. In doing so and to effectively prevent discharge of any type of wastewater into the public sewerage networks, a permanent commission is established, comprised of full-fledged representatives of the Ministries of Energy, Health, Treatment and Medical Education, Heavy Industries, Mines and Metals and the DOE and other responsible organizations. The Organization of Municipal Water and Sewage will be established in the Ministry of Interior to implement the pertinent decisions. The organization is required to determine the sources of contaminants in the sampling and the type and amount of pollution of each of these sources according to the planned schedule of wastewater. If the severity of the contamination of any of the polluting sources is more than the standards mentioned in Article 5 of this legislation, the organization will notify the relevant officials in writing to take proper actions and remedies. After the warning, the officials are obliged to submit the wastewater treatment plans to the organization for approval in accordance with the standards mentioned in Article 5 of this regulation. The authorities are obliged to take action to eliminate the pollution within the standards stipulated in the warning, otherwise, according to Article 11 of the Law on Protection and Improvement of the Environment, the activity or exploitation of the relevant source will stay stopped until the pollution is eliminated.
2. Enforcement of standards and regulations set forth in Article 5 of the legislation are applicable for issuance of licenses for establishment of industrial units of agricultural sector including livestock, poultry and slaughterhouses. According to the law, manufacturing companies should not discharge their untreated wastewater directly into the running waters. Finally, in case of pollution of seas and lakes, as well as Border Rivers with petroleum products, the law on "Protection of sea and Border Rivers from oil pollution" will be applicable.

62. An outline of our important policies and practices are as follows: promotion of economic efficiency of water use and improvement of water productivity; determining the value of water (including its intrinsic, economic, security, political, and environmental values) in the context of sustainable development guidelines; proportionate pricing policies; optimal utilization of water resources with particular emphasis on exploitation of unconventional resources; preventing pollution of water resources and efforts to eliminate the pollutants; application of new procedures for water harvesting and recycling untreated and wastewaters; enhancement of efficiency and sustainability of utilizing shared water resources in border areas in close collaboration with neighbouring countries (with allocation of 4 present of the country’s national budget); Inter-basin water transfers and water exchanges with neighbouring countries to respect the rights of stakeholders (nature and human) and meet their essential drinking and industrial water needs; water trading and import of water; spatial planning and integrated management of water resources; delineation and study of the requirements of other sectors to water; integrated management of water resources to maximize land use and pertinent planning.

63. Water resources are managed in a ‘comprehensive approach’ to ensure improvement of water utilization efficiency, inter-sectorial and multi-sectorial coordination, water and land management coordination to strike a sustainable balance between water supply and demand to respect human rights of the people in Iran and neighbouring countries.

64. To achieve the aforementioned goals and to guarantee further realization of human rights, from one hand public participation has been encouraged, promoted and mobilized in all stages of design, implementation, and operation of water projects and from the other hand, decentralization, deregulation and reduction of government’s involvement is managed to optimize the administrative structure and to boost the interaction between all beneficiaries and stakeholders.

65. In line with realization of policies set forth in Article 44 of the constitution, activities such as financing, resource mobilization and investment has been encouraged and promoted to effectively provide opportunities for institutionalization of private sector participation in all stages of planning, research, implementation, and operation of water resources and environmental activities. Under the pressure of systematic, cruel, illegal and unlawful unilateral coercive measures of the Government of the United States of America, or in better words, the economic terrorism with its so-called maximum pressure policy that almost blocked external foreign resources even including Intergovernmental bodies such as Word Bank, mechanisms of integrated internal public financing and credit institutions have been developed.

66. Transfer of management, ownership and the knowhow of building projects such as small dams, irrigation networks, drainage networks and systems as well as construction of hydraulic structures to the private sector are crowned with success. Utilization of the urban and rural clean drinking water and their sanitation systems will be completed during the plan.

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