

***SENATE OF PAKISTAN
HOUSE OF THE FEDERATION***

Report



Senator Lt. Gen ® Abdul Quayyum gave notice of a motion under rule 218, regarding discussion on current water shortage in the country

PRESENTED BY

SENATOR MOULA BUX CHANDIO
CONVENER

SENATE SECRETARIAT

REPORT OF THE STANDING SPECIAL COMMITTEE ON WATER SCARCITY

I, Convener of the Standing Special on Water Scarcity, have the honour to present the report on prevalent water shortage in the country moved under rule 218 by Senator Lt. Gen. (Retd.) Abdul Qayyum on 6th July, 2018 and referred to the Special Committee on Water Scarcity for consideration and report thereof.

2. The composition of the Special Committee on Water Scarcity is as under:-

1. Senator Moula Bux Chandio	Convener
2. Senator Sassui Palijo	Member
3. Senator Ch. Tanvir Khan	Member
4. Senator Dr. Ghous Muhammad Khan Niazi	Member
5. Senator Syed Muzafar Hussain Shah	Member
6. Senator Syed Muhammad Sabir Shah	Member
7. Senator Brig (R) John Kenneth Williams	Member
8. Senator Muhammad Akram	Member
9. Senator Sardar Muhammad Shafiq Tareen	Member
10. Senator Anwar-ul-Haq Kakar	Member
11. Senator Khushbakht Shujat	Member
12. Senator Moulana Abdul Ghafoor Haideri	Member

3. The matter was taken up in the meetings of the Special Committee on 06.09.2018, 17.10.2018 and 21st February, 2019.

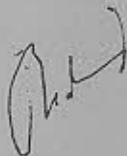
4. The Committee finalized its recommendations in the meeting held on 21st February, 2019 and allowed to submit the report to the House. The following members of the Committee attended the meeting.

1. Senator Moula Bux Chandio	Convener
2. Senator Sassui Palijo	Member
3. Senator Dr. Ghous Muhammad Khan Niazi	Member
4. Senator Brig (R) John Kenneth Williams	Member
5. Senator Khushbakht Shujat	Member
6. Senator Lt. General (R) Abdul Qayyum	Mover

SUMMARY

It cannot be over emphasized that water is the most important element for sustenance of life. Also water is essential for socio-economic development of the country.

The current water crisis, as pointed out by Senator Lt. Gen @ Abdul Qyuum is a vital issue. Pakistan has been facing the water crises for the last few years. Availability of water for any given use is decreasing day by day. Rapid growth in population, expansion in irrigated areas and growth in urban and industrial zones are constantly putting stress on water resources. Water is the basic need and also essential source of economic activities, including agriculture and industrialization. It has symbolic and cultural values for our countrymen. Furthermore domestic water supply is universally acknowledged as not only a basic right but also a key development indicator.



The problem of water shortage is not confined to our country but the study shows that 1/3 of the world's population is currently experiencing some sort of water scarcity. It is pertinent to mention that out of the whole water portion on Earth, saline water in oceans, seas and saline ground water make up about 97% of the whole water. Only 2.5-2.75 % is fresh water, including 1.75 – 2% frozen in glaciers, ice and snow while 0.5 – 0.75 percent is fresh ground water and soil moisture. Only less than 0.01% of it is the surface water present in lakes or found in swamps and rivers. The picture of total water consumption by different sectors in Pakistan reflects that 69 percent is used for agriculture, 8 percent in domestic use and 23 percent is the industrial use of water.

Water resources in Pakistan include rainfall, and the major rainfall in Pakistan is Western depressions (December-March), Monsoons (July-September) during the seasons of Kharif and Rabi, the entire Indus Plane receives an average rainfall of 212 MM and 53 MM respectively.

The glaciers are another valuable source of fresh water for the people living in the downstream. We are blessed people that nature has granted us with frozen reservoirs spreading over 13680 sq.km. These glaciers help in boosting the river run off in warm weather. It is alarming to note that in a period of 30 years, glaciers in the Himalayas diminished by 1/5 and the scientists opined that the glaciers in this region will disappear by 2035. In a study it is shown that it will leave devastating impact for the population living in downstream.

The Indus is the largest river of Pakistan and the main source of fresh water that helps in household, industrial needs and supports about 90% of agriculture. The eastern

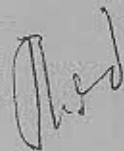


tributaries of Indus are Jhelum, Ravi, Chenab and Sutlej. As per the Indus Water Treaty 1960 India was given control over Bias, Ravi and Sutlej. As per provisions of Indus Water Treaty all the water of the Eastern Rivers shall be available for un-restricted use of India. In the same way Pakistan shall receive un-restricted use of water from western rivers.

The average annual run off of the Indus River system available to Pakistan is of the order of 145 MAF with minimum recorded so far as low as 98 and maximum 183 MAF. The water resources and river run off in Pakistan suffers inherit shortage and per capita amount of water resources that is below 1000 cubic meter at present. Pakistan has constructed considerable infrastructure and management measures are taken to control water resources. The reservoirs have been constructed to store water river flows and rainfall waters namely Tarbela and Cheshma on Indus River and Mangla on Jhelum. With the passage of time the capacities of the above mentioned dams have been constantly decreasing due to sedimentation.

During discussion it was revealed that Drawat Dam in Sindh is almost complete, requires canals/irrigation channels to take water from dam to farms. The Sindh Government representatives apprised the Committee that the Federal Government has not been providing the due funds to complete the Dam. The Committee showed concern and unanimously emphasized the need for provision of funds by the Federal Government, at the earliest. Also, the Committee directed the provincial Government to complete the work on their part.

The Committee discussed the alarming situation of scarcity of water in lower riparian regions, particularly in Sindh. It was revealed that IRSA is not implementing the



Water Accord, 1991. The three tier formula, it appeared, took preference to that of Water Accord. The Committee emphasized the need to implement the Water Accord in letter and spirit. It was discussed that Sindh has been suffering from water shortage more than other parts of the country while the Ministry dis-agreed and said that the water shortages are shared by all the provinces. To resolve the issue of water apportionment of Indus Water System, the matter was taken in CCI and a committee was formed under the Chairmanship of Attorney General of Pakistan (AGP). The AGP listened to all the stakeholders and the report is awaited. The Committee directed that the report should be finalized as early as possible.

Unfortunately, we are heading towards water shortage eventually resulting in food insecurity. Per capita surfaced water availability has decreased from 5260 cubic meter per year in 1951 to around 1000 cubic meter in 2016. It is alarming to note that there is likelihood in further drop to about 860 cubic meter by 2025. Thus our nation will go from a "Water Stressed" to "Water Scarce Country" It is mentionable that minimum water requirement to avoid implication of water scarcity is 1000 cubic meter per capita per year.

Water resources are directly linked with climate and climate change scenario reflects threatening and serious consequences. The unpredictable precipitation cycles and patterns may result in serious implications including flash floods in north and prolonged droughts in south. The Glacial Lake Outburst Floods (GLOF), is the other recent phenomenon increasingly common and hazardous in the northern parts of the country.

The Committee went through the National Water Policy of Pakistan. While placing its appreciation on many of the aspects of water policy, the Committee pointed out



that the National Water Policy sans pragmatic approach to implement the whole concept. The National Water Policy formulation and implementation, both should be central part of strategic processes. The policy lacks many of the important factors. Avoiding the academic discussion, the Committee felt that prima facie, it is based on qualitative approach and the quantitative side is absolutely found missing. The policy has rightly pointed out the weaknesses in the form of "Main Concerns" page-3. The policy objectives are absolutely conceptual in nature, generic in style and a pack of sweeping generalization. It is more abstract and less practical.

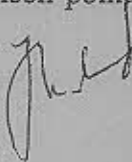
Interestingly the National Water Policy sums up as follows:

29.6. The Water Resources Division will submit periodical reviews to the Council of Common Interests on the implementation of National Water Policy to ensure inter-alia, that the policy objectives listed in Section 2 are achieved in a timely and cost effective manner."

The question arises that how far the objectives of the policy have been fulfilled and whether the periodic reviews with reference to implementation have been submitted to the Council of Common Interest (CCI) or not. A comprehensive implementation programme, should be submitted to the Senate Standing Committee on Water Resources for its transmission to the Senate House, the Committee directed.


RECOMMENDATIONS

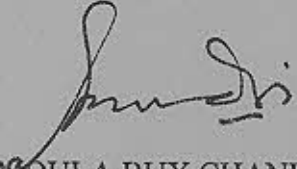
- (i) The Committee recommended that the National Water Policy and its Implementation Plan may please be discussed in the Committee of the Whole.
- (ii) The Committee directed the Ministry to submit a report on periodic evaluation of the National Water Policy and consequent submission to the Council of Common Interest in terms of "29.6" of the policy. The report also be shared with the Committee of the Whole.
- (iii) The Committee recommended that an implementation plan with clear quantitative metrics be prepared and submitted to the Standing Committee on Water Resources. The Committee also directed that with proper statistics and comparison points, the implementation plan should have an



evaluation mechanism to extrapolate future results. The overall success of the National Water Policy should be based on an implementation plan by combining qualitative and quantitative metrics determining the overall success in future.

- (iv) The Committee recommended that the only source of fresh water that is sub-surface water needs to be surveyed with a quantitative map showing the quality and quantity of water.
- (v) Flood irrigation is one of the major sources of wastage and it must be averted by an efficient water management policy; advance systems of irrigation application as drip, sprinkler etc. should be used in line with the concept of "More Crop per Drop."
- (vi) Water charges/bill for usage need to be rationalized for water conservation and revenue generation.
- (vii) Efficient utilization of water is crucial. Therefore careful and wise use of water in agriculture, domestic and industrial sector is need of hour.
- (viii) The losses in canals can be eliminated by lining in areas of high water loss and saline zones.
- (ix) There is a need to construct additional storage for inter-sessional and inter-year transfer of water for optimum utilization.
- (x) Due to heavy over ground water pumping, the water table is lowering down. Arrangements should be made to recharge the aquifer by using flood water by constructing Delay Action Dams, Underground Dams etc.
- (xi) The Committee directed the Federal Government to provide due share of funds to Sindh Government for completion of Drawat Dam that link canals and irrigation channels/water courses to be constructed on priority basis to make Drawat Dam functional for all the purposes.
- (xii) The Committee showed concern on the fact that Khachi Canal, Phase-1 has been completed up to Dera Bugti but the remaining works are still pending. The Committee directed that the remaining works be completed on priority basis.


(JAVAID IQBAL)
Secretary Committee


(SENATOR MOULA BUX CHANDIO)
Convener