



**Center for Global & Strategic Studies**

**Sri Lanka: An Ocean State and Drought Warning**

*Published on 14 February, 2017*



The year 2016, has been declared as the third consecutive hottest year by the World Meteorological Organization due to the rapid climatic change and global warming. Nearly every country of the world is experiencing worst impact of climatic change and

is Sri Lanka, as the country is hit by worst drought in decades since the 1970s, which is likely to effect more than one million people in at least five provinces, due to an acute water shortage. Prone to the tropical weather conditions and stifling heat wave, there are recurrent droughts and food scarcity in the country. According to the Disaster Management Center (DMC) only around 30,000 hectares out of the 80,000 hectares of arable land was cultivated in the year 2016, which is the lowest plantation of rice and other crops since the last thirty years and this tendency of waterlessness in the ocean state is likely to cause a significantly low harvest yield, hence jeopardizing the next planting year as well.

### Geography

Sri Lanka is an island state which is situated in South Asia and is the part of the Indian Ocean located southwest of the Bay of Bengal. The strategic Gulf of Mannar and Palk Strait separates Sri Lanka from the Indian Sub-continent. Sri Lanka is home to 103 rivers, 45 estuaries, 40 lagoons and mangrove ecosystem which are bestrewed over thousands of hectares. Mainly influenced by the monsoon winds from the Indian Ocean some of the windy hill areas of the country attain up to 2,500 millimeters or 98.4 inches of rain each year. However, the east, southeast and northern parts of Sri Lanka receive a very little amount of rain accumulating to only between 1200 to 1900 millimeters; equal to 47 to 75 inches of rain per annum, which makes these areas as the dry zone of the country. Besides that, in the arid areas of northwest and southeast coastlines, 800 to 1200 millimeters of rain has been recorded on an average which is 31 to 47 inches

per year. Contrary to that, severe rainfall in the country has resulted in frequent floodings that caused catastrophic damages to the infrastructure and economy.

### Pertaining Issue

As aforementioned, majority parts of Sri Lanka receives less rain and with the delay in monsoon rains and severe heat waves, due to global change of climatic trends wells and other small water reservoirs have nearly dried up. Making the string at availability of water and high sea salt has contaminated the water supplies making it difficult for many to access clean drinking water. As of December 2016 the total capacity of water in 73 major reservoirs was stated to be only 29%. Due to this shortage in the main reservoirs of the country, the water level in small canals has also reached the critically low. For instance, only in the village of Kaluganga more than 200,000 people were affected. The water shortage has severely affected the agricultural and hydropower generating sector of the country. The inadequate water supply to the hydroelectric reservoirs has caused energy shortfall in the country as the production of energy dropped by 12% approximately. To meet the growing demand of energy the state is left with the option of thermal energy production, which is far more costly than hydroelectric power. Due to this drought the analyst fear food price hike which will be another issue having disastrous implications for the country to tackle.

## Implications

Despite being an island state this is not the first time that Sri Lanka is confronted with the drought; similar trends have been experienced by the country in the past too. The country has faced drought on several occasions between the years 1974 to 2008 with the year 1992 topping the list due to severity.



The water scarcity and droughts have significant economic, social and environmental impact that lead to conflicts between people and state over access to water resources, hence, worsening the social life within a country. Besides that, about 31.8 % of the Lankan population earns their livelihood from the agricultural sector, hence the drought may lead towards the social instability among the inhabitants of the state and create a sense of insecurity.

As of now it is the most imperative priority of the Government to provide clean drinking water to the affected people. About 337 water supply schemes are functioning under local government for the provision of clean drinking water, but due to the lower water levels in rivers and mixing of sea water with fresh water is causing problems. In the case of delayed water supply local population is left with the option to hire private water

bowsers which are far too expensive for many villagers. Drinking from the well is not appreciated by the villagers as in most cases the water is contaminated which causes an epidemic Chronic Kidney Disease of Unknown Etiology (CKDu).

Sri Lanka has also received a grant from the Green Climate Fund in 2016 to fight the impact of climate change. The International Water Management Institute (IWMI) has also launched a hi-tech information system to enhance water management in Sri Lanka.

It provides facts, figures and maps on trends in water availability, water use and water quality for the country. It will also provide a secure platform for cooperation among all the agencies involved in water management in the country.



The government has created a task force to deal with the issues of food shortage and the rising prices of food items as a consequence of the drought but still, it is not the solution. In order to overcome this imminent issue, Sri Lankan government has created a committee to devise an action plan. On the other hand the government has also reduced all the taxes on rice imports to make them accessible for everyone. There is a need to look into the reasons behind these recurrent drought warnings and food scarcity.



## Recommendations

Following suggestive measures must be adopted by the Sri Lankan authorities to address the issue of drought as the country has been found quite prone to it:

- The government should take steps to control the use of water through educational schemes to teach locals on how to save water. The community leaders should educate people on the water saving methods especially the farmers and local villagers in order to prevent misuse.
- There is a need for the establishment of diversified methods for crop production in order to minimize the dependency of farmers on the rainfall pattern.
- Coordinated efforts are needed among government departments and civil society organization to overcome the issues related to water and food scarcity.
- Financial support must be given for the distribution of drinking water in affected areas and ancient cascade system must be restored in the country.
- A proper water supply project needs to be initiated to find a solution to the problem of water shortage to avoid the challenges of climate change through water management in the future.
- The government is in need to initiate power supply agreements with private companies to overcome the energy shortfall.

- The state should work on the establishment of water filtration plants in order to convert sea water into fresh water to overcome the potential acute water shortage.
- There is a need to create awareness regarding the climate change at all the levels so that water management may be done effectively and the challenging climatic patterns can be countered.

Sri Lankan authorities are in need to establish wastewater recycling plants to use them for the irrigation purposes. Water recycling is a new source to meet the growing demands of water for domestic and agricultural purposes. This will be economical and provide high-quality waste water to the drought prone areas. Wastewater recycling replicates the natural processes to offer an environmentally sound and cost-effective way to remove the waste and reclaim that water, hence reducing the dependency of farmers on rainfalls.