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Placing clean water at the heart of good governance in India

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In water, there is life and without water, there is no life. Water is almost a producer of life. From thick jungles where diverse plants and animals throng to human settlements that naturally seek water and cluster around it forever; this is one natural resource that is at the core of life on Earth. Today more than ever the new Prime Minister Narendra Modi led government is placing clean water at the heart of good governance. So when Prime Minister Narendra Modi gave a clarion call on July 29, 2014 when speaking to agriculture specialists seeking 'per drop, more crop', it automatically touches a chord among Indians.

Fresh potable water is at a premium and may possibly become the rate-determining step in the future. India with over a 1.2 billion people makes up almost 17 percent of the world's population – the contrast is that the country possesses merely 4 percent of the world's fresh water resources with the renewable fresh water resources of India standing at 1869 billion cubic meters (BCM) per year. Currently every Indian has access to less than a fourth of what is the world average and disparities are only growing. Can this thirsty divide between the water-starved and the water-rich be bridged sound water management and by deploying best practices.

There is a huge renewed interest in cleaning the river Ganga with the new National Democratic Alliance government even renaming the central water ministry as the 'Ministry for Water Resources, River Development and Ganga Rejuvenation'. On July 7, 2014 a large inter-ministerial national consultation called 'Ganga Manthan' was organized in New Delhi where it was recommended that a honest effort will be made that in next five years a clean free flowing Ganga is given back to Indians. The new government is undoubtedly focusing heavily on providing clean water, towards that a massive effort to clean up India's National river the Ganga has been allocated \$ 340 million in the budget, the 2500 kilometer long northern Indian river whose basin houses some 400 million people, has been heavily polluted and Modi promises to clean it up by 2019. He made this promise while giving a victory speech on the banks of the Ganga from his own constituency in Varanasi.

According to estimates by the Ministry of Water 'the per capita availability of water in the country is 1545 cubic meters as per the 2011 census. The per capita water availability in the country is reducing progressively due to increase in population. The average annual per capita availability of water in the country, taking into consideration the population of the country as per the 2001 census, was 1816 cubic meters which reduced to 1545 cubic meters as per the 2011 census.'

According to estimates put out by the National Water Development Agency (NWDA) to meet the irrigation potential of 160 million hectares by 2050 up from the current of about 100 million hectares, new strategies will have to be adopted especially since India's population is

likely to be anywhere between 1.4 to 1.5 billion up from the current 1.2 billion. To feed the people by then the country will have to produce some 450 million tons of food grains, almost doubling the output in less than four decades. Ensuring that the country gets more crop per drop will be the big game changer.

To make the long-range forecasts of the monsoon more accurate, India has launched a \$ 75 million, 5-year research program called the 'monsoon mission' to decipher the mystery of the monsoon. The southwest monsoon is that life-giving phenomenon which showers on the Indian landmass 80% of the total annual of 105 cm rainfall that India receives. Every year between June-September, moisture-laden winds blowing in from the Indian Ocean rejuvenate the parched Indian countryside. The monsoon arrives without fail, but forecasting it months ahead is a nightmare. The drought of 2002 shrank India's GDP by an estimated 5.8%. Calling the monsoon an 'intriguing phenomenon'. Shailesh Nayak, a geologist and secretary for the Ministry of Earth Sciences says 'understanding the monsoon is a major priority for the next five years'.

According to the government 'water quality data of various river stretches has revealed that organic pollution particularly Bio-chemical Oxygen Demand (BOD) has exceeded the desired water quality criteria in 150 river stretches covering 121 rivers. The major cause of rising organic pollution, particularly BOD in these rivers, is due to discharge of untreated and partially treated domestic effluents by various municipalities across the country. Pollution abatement in rivers is an ongoing and collective effort of the central and state governments. Ministry of Environment & Forests, Government of India is supplementing the efforts of the state governments in pollution abatement in various rivers through the centrally sponsored National River Conservation Plan (NRCP), which presently covers 40 rivers in 190 towns spread over 20 States. Pollution abatement schemes include interception, diversion and treatment of sewage; low cost sanitation works on riverbanks; gas fired, electric or at times improved wood crematoria are being used. Sewage treatment capacity of 4574 million liters per day has been created. Nobody can doubt that rivers in India are heavily polluted and giving them a quick scrub will certainly make India a healthier place.

The whole spirit of water is of tranquility and peace, praise and cleansing. Yet, there are wars, and it is predicted they have only just begun. The wars may be over the use of water, over its sharing, over who gets how much. This war plays out each day, all the time, in countless Indian cities, towns, and villages. Its many scenes are depicted in the long and tired queues of women with more pitchers than they can hold, in the growing frequency of water tankers that actually sell water in many parts of the country, and in the larger political dramas that unfold around the sharing of rivers between states and the damming of water.

But water endures, and also manages to push human endurance beyond limits. It befriends, pacifies, cajoles and makes its way into the lives of the unlikeliest of people. It draws humans, animals and plants alike. It can make or break ecosystems and economies. It entices industry and beckons even the atheist. Water is at what must truly be the center of the Universe for every Indian. Better governance of this vital resource will ensure a healthy and prosperous future for India.

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Photo captions:

1) A serious effort is being made to clean up India's national river The Ganga, here devout Hindu women are praying to the river goddess at the 2013 Kumbh Mela, the single largest gathering of humans at any one place. *Credit and copyright: Pallava Bagla*

2) Rivers are sacred in India, a man offers his prayers to the River Ganga in spite of the fact that the river is highly polluted. The Prime Minister Narendra Modi led government has made elaborate plans to clean the river by 2019. *Credit and copyright: Pallava Bagla*

3) India has almost 17 percent of the world's population living on some 4 percent of the world's fresh water resources. Here women in Gujarat return after filling their pitchers of water from a well. *Credit and copyright: Pallava Bagla*