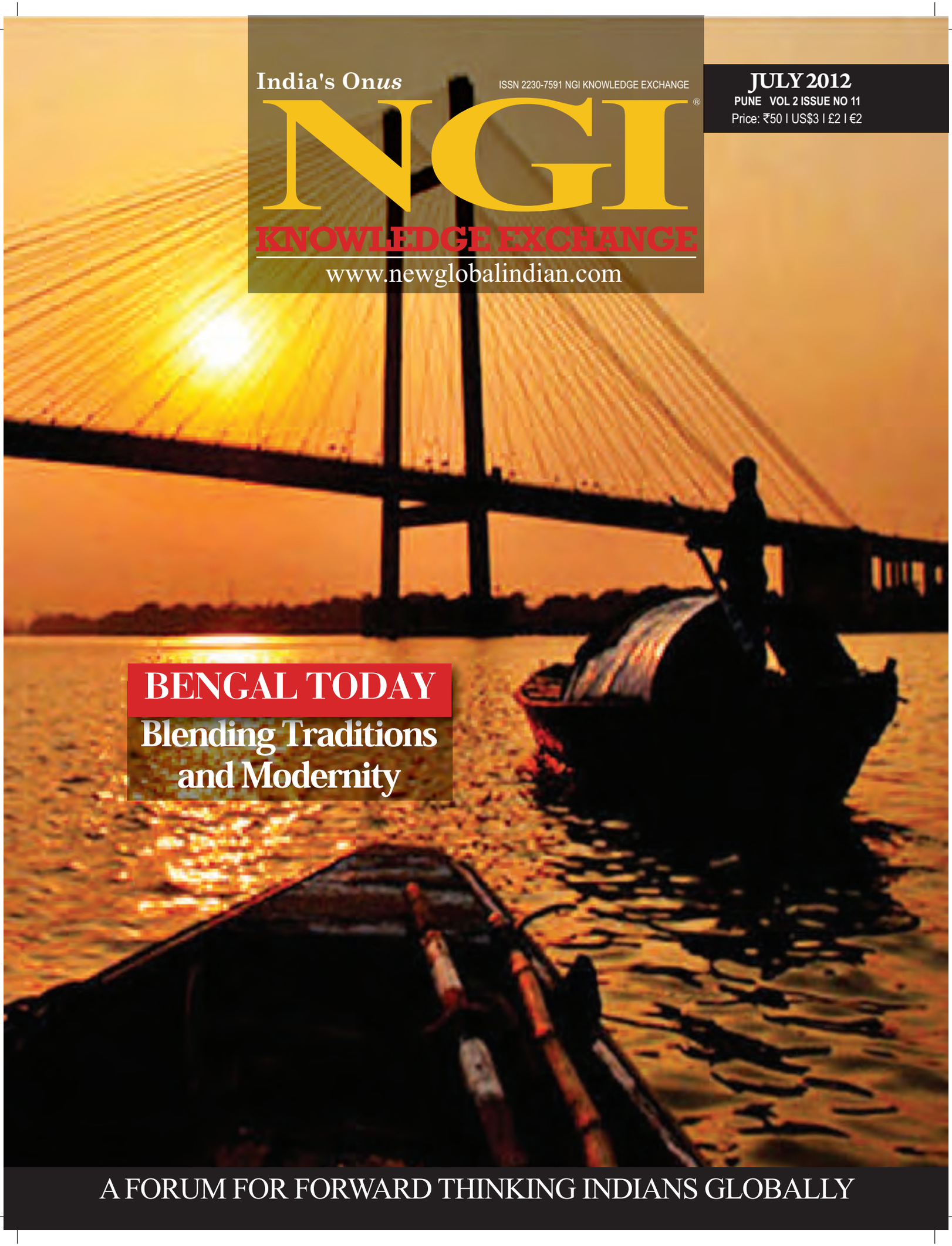

India's Onus

ISSN 2230-7591 NGI KNOWLEDGE EXCHANGE

NGI

KNOWLEDGE EXCHANGE

www.newglobalindian.com

JULY 2012

PUNE VOL 2 ISSUE NO 11

Price: ₹50 I US$3 I £2 I €2

BENGAL TODAY

Blending Traditions and Modernity

A FORUM FOR FORWARD THINKING INDIANS GLOBALLY

Bengal Needs a Water Policy, NOW !

Prof Asit K Biswas suggests a roadmap for water development in the eastern Indian state, and warns that a failure to implement it could lead to a crisis of monumental proportion in the next 10-15 years.

Water development in West Bengal, thanks to over half a century of neglect and poor policy measures, is on an unsustainable and undesirable path. If the current practices and trends continue, in about a decade the state will face a serious crisis — both in terms of water quality and quantity — the magnitudes and extents of which no other earlier generation ever had to face. Sadly all three levels of governments in West Bengal — central, state and municipal — have grossly neglected water management for decades. The citizens of the state are now already paying the price of this gross mismanagement, and if this persists, they will continue to pay increasingly higher social, economic and environmental costs in the future. Regrettably, the overall water management in India is not very different to that of West Bengal.

The impacts of these crises would be manifested through serious declines in human and ecosystems' health, reduction in employment generation, increase in poverty, and reduced social, industrial and regional development. Besides, these would be further compounded by looming problems of food, energy and environmental securities since water is a common thread that links all these issues.

For a constantly expanding population, whose aspirations and expectations can only increase because of communication and information revolutions over time, this will be a catastrophe, though avoidable which is simply waiting to happen. It is not a question of if, but when.

Why water is important for Bengal

Overall water is important for West Bengal for many important reasons — agricultural activities, energy security, domestic use, industrial development and maintenance of good health and environment. Unfortunately, the state has never produced a viable long-term vision for water and formulated a strategy that could be implemented to transform that vision into action. This should have been started at least three decades ago. Even now there is no sign that this situation is about to change. Based on the philosophy that it is better late than never, it is high time that the government should develop a long-term growth-oriented water vision. Properly planned, water can be an engine for economic development for the state and thus contribute to a higher quality of life.

To begin with, West Bengal needs to consider formulating a rational water management philosophy. Water management has to be seen as important means to an end, the end being how it can be efficiently used as an engine for regional development, job creation and poverty alleviation as well as improve the health of the people and ecosystems.

The largest water use in the state is by far the agriculture sector, which probably accounts for 80%-85% of all water use. Consider the following three facts. First, according to

the data of the Indian Meteorological Department, nearly 80% of annual rainfall occurs in only about 80-120 hours during the monsoon seasons, though not consecutively. Hence, the government policies should focus on how best to harness this tremendous quantity of water which falls within very short periods so that it can be used by the people over the entire year and also in between the years. The monsoon rainfall is very intensive, so much so that water does not have enough time to percolate into the ground. Most of it runs away to the rivers and ultimately to the sea, and thus is lost to the state for the future uses.

Second, with even such a skewed annual rainfall pattern, the state has at present around 225 to 275 m3 of storage capacity per person. Hence, only a very limited quantity of water can be stored at present in reservoirs which could be released in non-flood seasons for irrigation and other uses. In contrast, countries like the US or Australia have 10,000 m3 of storage per person, even though their annual rainfall patterns are significantly smoother than that of West Bengal.

Third, consider the current water quality situation in the state. Nearly 40%–50% of the area of the state is already suffering from poor water quality, especially due to arsenic, fluoride and salinity contaminations, again because of decades of neglect. Water quality monitoring in the state has been and continues to be very poor. For example, when the people were falling sick because of using arsenic-contaminated water, the cause was identified through epidemiological studies and not due to monitoring of water quality. It took nearly a decade and the costs of such studies were high. Had there been proper water quality monitoring, it would have been a fairly straightforward case to identify the cause.

Pollutants' menace

Currently, all water bodies in the state in and around urban centres are now heavily contaminated with known and unknown pollutants. This has created serious health and environmental problems which can only increase exponentially during the next 10-15 years due to expanding human and industrial activities, unless the government urgently considers proper counter-measures. Again, there is no sign that this is likely to happen in the near future in any sustained manner.

Besides, farmers are continuing to use age-old inefficient practices like flood irrigation. During my travel in the state, I have seldom come across large areas that are under sprinkler or drip irrigation, even though these practices are now widely used all over the world, and also in many parts of India for the last 40 years. The farmers have not received any education and training on how to reduce water use significantly without sacrificing crop yields. Even though there are good agricultural colleges within West Bengal (for example, Indian Institute of Technology, Kharagpur, has an excellent food and agricultural department), the state has not used their expertise in any meaningful way. Consequently, the state's agricultural water management is at least 50 years behind time. This simply cannot continue with increasing food requirements consistent with poor water management.

The incomes of small farmers cannot be increased until they receive good and timely advice on water, types of seeds available, appropriate use of pesticides and fertilizers, and overall management and marketing strategies. Now, all these ingredients are mostly missing. Consequently, West Bengal's record for agricultural production has been dismal compared to, say, that of Gujarat.

Bountiful water as a reliable source of energy

Let us consider some water-related developments. First, if West Bengal is to attract industry, it would have to ensure that it has adequate and reliable supplies of water and energy all throughout the year. I would estimate that West Bengal would have to increase its electricity generation capacity by at least 6%-8% a year for the next two decades to provide the enabling conditions which would attract new industry to locate in the state. However, no large scale electricity generation is possible without significant amount of cooling water. It is safe to forecast that water requirements for thermal power plants will increase rapidly during the next 30-40 years. Consequently, percentage of water available for agriculture will continue to decline steadily during this period. It may solve the energy problems but will accentuate the food problem. In the absence of a proper water vision for the state, the main sufferers from this sad state of affairs will be the small and marginal farmers who are already in poor financial shape.

Sadly, even though water and energy are intricately interconnected, there is not even a single state in India which has an energy policy that explicitly considers water and vice-versa. West Bengal should consider a vision for water that should specifically consider water requirements for a rapidly expanding energy sector in the future, as well as food, industrial and domestic water needs of an increasingly urbanized state. There is simply no other alternative.

Finally, urban water and wastewater management in West Bengal is again at least 40 years behind time. At present, the cost of poor water management in the state probably accounts for 4%-7% of its GDP, which is a very substantial figure. Regrettably, a city like Phnom Penh with much less technical and administrative expertise can now provide 24-hour water supply to all their citizens which can be drunk directly from the tap without any serious health impacts. Phnom Penh Water Supply Authority is a public sector autonomous corporation which runs an efficient water supply system without any political interference, or financial support from the municipality. The poorest of the poor in Phnom Penh now receive clean water in their shanties. There is absolutely no reason as to why any city in West Bengal that has a population of more than 200,000 cannot have 24x7 clean water supply. The knowledge and technology is available, and so are the funds that must be properly and efficiently utilised.

Unfortunately, the state has never produced a viable long-term vision for water and formulated a strategy that could be implemented to transform that vision into action.

West Bengal has no more than about a decade to develop and implement a vision for water to 2025 and beyond.

Based on all the data and information available there is no question that West Bengal has no more than about a decade to develop and implement a vision for water to 2025 and beyond. Such a vision must consider using water as an engine for economic development, regional growth, employment generation and poverty alleviation. The vision should be technically and economically feasible, socially and environmentally acceptable and politically attractive. It will not be easy, but doable. No other state in India has developed such a water-related development vision. In this sense, West Bengal could be a pioneer.

There is an old Chinese proverb, which says "Vision without action is a daydream. Action without vision is a nightmare". The ad-hoc water management practices and processes and consistent political neglect are taking West Bengal towards a nightmarish water scenario in the future. The current and next generations of people have every reason to expect that this situation is avoided. This can be done, should be done and must be done. There is simply no other alternative if a water crisis of monumental proportion is to be avoided in 10-15 years.

(Prof Asit K Biswas is the founder of Third World Centre for Water Management in Mexico and Distinguished Visiting Professor, at National University of Singapore)