

India's Onus

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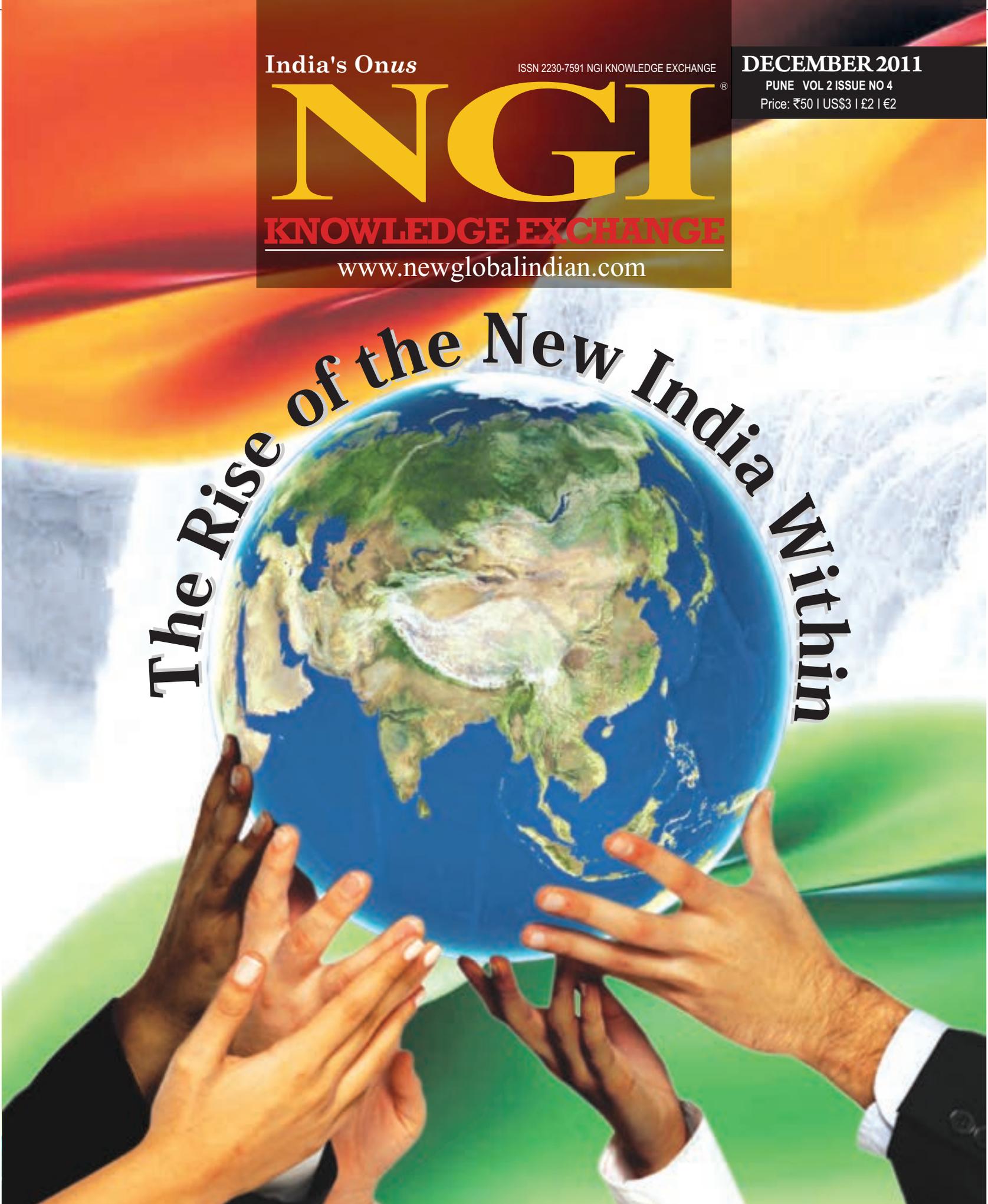
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Solution to India's Policy Paralysis

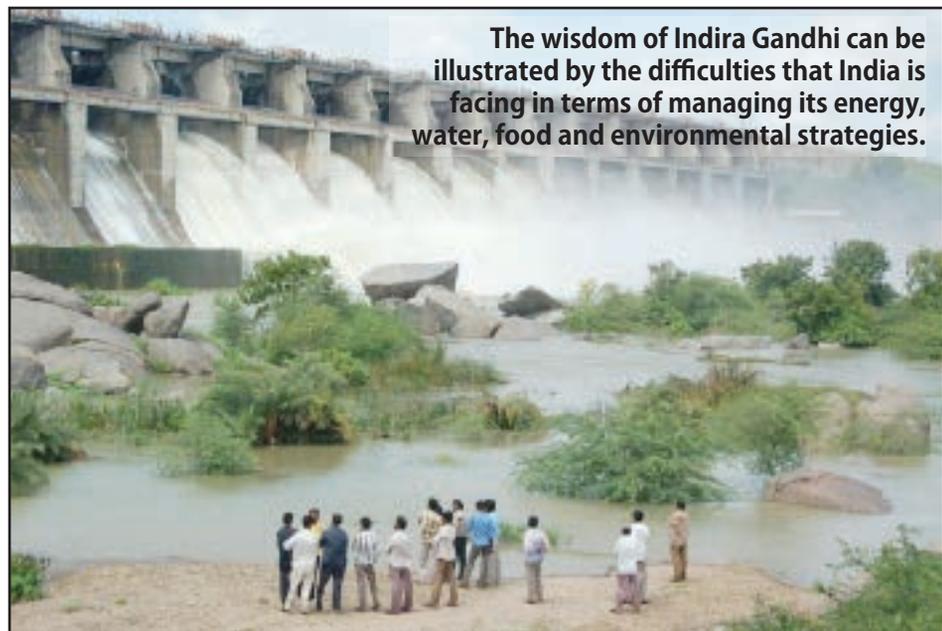
Asit K. Biswas looks into the nation's key sectors, and suggests ways to increase their productivity in the face of its growing population challenges

An important policy issue facing India is how to provide enough food, energy, water, livable environment, employment, social services and other necessities of good quality life for not only about 1.21 billion people but also how it can cope with 1.53 billion population by 2030, when it would become the most populous country in the world. Economic growth, technological developments, higher education and income levels, increasing globalization, and information and communication revolution are factors that are contributing to accelerating societal pressure to formulate new, innovative and implementable policies that could successfully meet the increasing expectations of an expanding Indian population.

Based on the results of the past and recent development policies, it is abundantly clear that these will not be able to satisfy these accelerating and rapidly changing requirements. The country will be facing increasing social, political and economic pressures to deliver results which would successfully meet such continually rising expectations of its citizens. The trust in the government to deliver results is almost at historically low level at all sections of the society.

Reasons for Policy Failures

There are many reasons for past policy failures, including the complexities associated with forecasting and understanding the implications of future changes with any degree of certainty. The boundary conditions within which the policies are expected to operate often change dramatically over short-to medium-term time-frames and are not the same that are initially assumed. Institutions have still not caught up with the changes of the past two decades, let alone are dynamic enough to understand, anticipate and respond to current and future trends. Equally important is the fact that during the past three centuries science and institutions have mostly worked on the basis of reductionism. If a problem or issue became too big or too complex, its framework was reduced to a manageable proportion so that it could be understood, analyzed and managed. For example, in the 16th century all science was considered



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to be natural philosophy. As knowledge advanced, physics became a separate branch, and was followed by chemistry and biology. Later, as knowledge advanced even further and physics and chemistry became too big, people specialized in different branches. Governmental institutions also faced similar type of reductionism. When they became too big and cumbersome to handle, they were split into different institutions or departments.

These reductionisms have worked reasonably well during the past three centuries. However, the past practices have become increasingly less and less effective and relevant in recent decades. This is because problems in the real world are becoming more and more complex and interconnected. Consequently, it is becoming extremely difficult to reduce any problem effectively so that an appropriate implementable solution can be found which would not seriously affect the other sectors. Institutions responsible for formulating and implementing policies are facing similar problems. It has become very difficult, if not impossible, to reduce policies only to specific sectors like energy, water, food, environment, health or any number of other issues because of

their increasing and changing inter-linkages over time and space.

In early 1980s, I had asked Indira Gandhi, the then Prime Minister of India, who was one of my mentors, as to why India after some 35 years of independence had made only limited progress in terms of poverty alleviation and human development. After some reflection, she said that probably the main reason was that policy responses that successive governments had undertaken to solve a specific problem often contributed to unanticipated outcomes in other areas. Many times, the total of these unanticipated side-effects were equal to the problem that they were expected to solve, and a few times may have even exceeded the original problem. Some three decades later, her diagnosis has proved to be correct for not only India but also for all other countries of the world.

Energy-Water-Food-Environment Interrelationships

The wisdom of Gandhi can be illustrated by the difficulties that India is facing in terms of managing its energy, water, food and environmental strategies. At the present state of knowledge



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and technology, no form of large-scale energy can be generated without water. Equally, water cannot be used or produced without using substantial amount of energy. Similarly, no food can be produced, transported and used without water and energy. At all stages of energy, food and water production, there are environmental ramifications, both positive and negative. One affects the other, and, in turn, is affected by the others. It is no longer possible to have an effective and implementable policy on any one of the sectors without considering their impacts on the other three areas.

Let us consider water. Nearly 90% of all water used in India is for agricultural purposes. On a percentage basis, agricultural water use is declining, even though in absolute terms, it is increasing. Hydropower contributes to nearly 26% of India's electricity generation. Equally, water sector consumes more than 20% of India's power generation. India cannot and will not be able to solve its food, energy and water problems on a long-term basis unless there is a concerted attempt to coordinate all the individual policies of these sectors which are now conspicuous by their absence.

In spite of close water-energy interrelationships, sadly, India does not have an energy policy that explicitly considers water requirements for its implementation, or a water policy that considers its energy requirements. Both assume that somehow adequate quantity of the other resource would be available to meet its future accelerating production requirements. Whereas India has clear plans for its energy production for the next two decades to sustain its social and economic development, it does not have any idea where will the cooling water for energy generation will come from, or even if this

quantum of water will be available, especially as water requirements from the other sectors are also steadily increasing. The competition for water from other sectors is already intense.

If poverty is to be alleviated, over 40% of the Indian population that live in rural areas but do not have electricity at present, must have access to it. Even under the current dismal conditions, the country already has a power shortage of 10%, rising to 13.5% at peak demand, which continues to keep the poor within the poverty trap. Power shortages and frequent load-shedding prevent farmers to a rising income; deprive children to study, and constraint development of industry and commerce seriously which are main creators of employment opportunities.

Poor policies and management practices have also ensured that most state electricity boards are almost bankrupt because of inadequate operation and maintenance procedures and provision of free or highly subsidized electricity to farmers to pump water which often they do not need. Over-pumping has ensured that groundwater levels in states like Punjab, Haryana and Gujarat have steadily declined in recent years which mean more electricity is needed to pump water from a continually increasing depth. Consequently, it has become a losing proposition for the energy and water sectors, as well as for reducing poverty. Effective management of groundwater is no longer in the hand of the water authorities but has moved to the purview of the energy sector. Unless the farmers can be weaned from subsidized electricity, and can be sensitized to use proper water and energy conservation practices by economic instruments and capacity building, it will continue to be "lose-lose" situations for

energy, water, food and environment sectors. Regrettably there are no signs that the Indian politicians and bureaucracies at various levels are willing to take difficult but absolutely essential hard decisions because of political expediency, vested interests and absence of any serious national debate on these complex and interrelated issues. India has the necessary resources, knowledge, and administrative and management capacities to solve these problems within one to two decades, but the enabling environment is sadly missing. On present indications, the country is likely to continue with its "two steps forward and one step back" development pattern rather than a radical breakthrough of its present and past policies which is urgently needed.



(Asit K. Biswas is president of Third World Centre for Water Management, Mexico, distinguished visiting professor of Lee Kuan Yew School of Public Policy, Singapore, and mentor of Indian Institute of Technology in Bhubaneswar.)