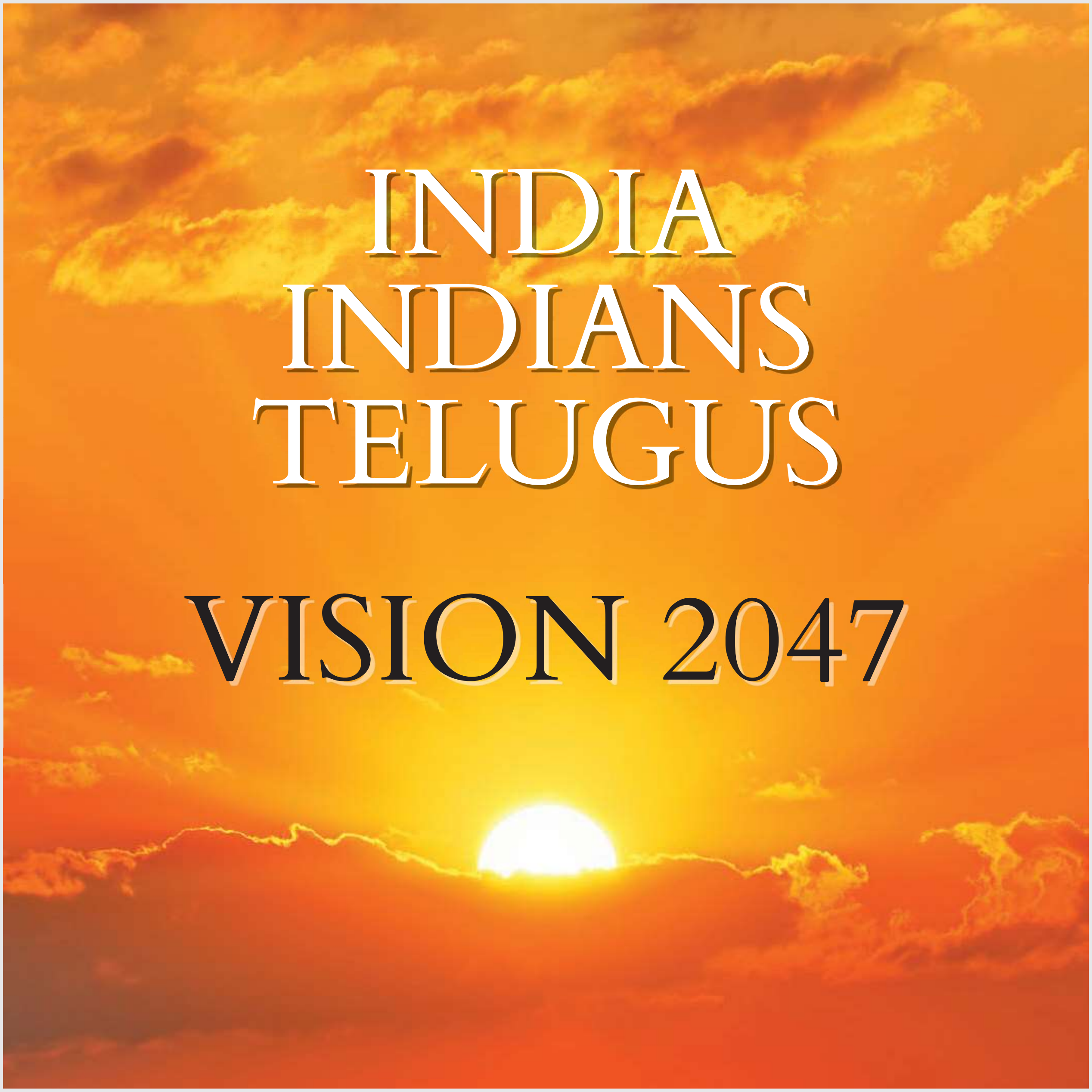
Draft for discussion



INDIA INDIANS TELUGUS

VISION 2047

GFST

Global Forum for Sustainable Transformation

FIVE STRATEGIES FOR INDIA AS A GLOBAL LEADER

GFST

Global Forum for Sustainable Transformation

CONTENTS

Strategy 5

WATER SECURE INDIA

Water and Climate Change-Availability and Access

India is one of the world's most water-stressed nations due to the fact that it has only 4% of the world's freshwater resources but is home to about 18% of the world's population. Around 45% of its population faces acute water shortages. Groundwater, which provides 85% of the country's rural drinking water and about 60% of its irrigation water, is being rapidly depleted. The difficulty is in ensuring that India's rapidly expanding economy isn't slowed down by its dependence on a limited natural resource.

The National Environment Policy of the GOI has stated that anthropogenic climate changes will have severe adverse impacts on India's precipitation patterns, ecosystems, agricultural potential, forests, water resources, coastal and marine resources. It further states that large-scale planning will clearly be required for mitigation and adaptation measures for climate change impacts if catastrophic human misery is to be avoided.

The Fifth Assessment Report (IPCC, 2014) of the Intergovernmental Panel on Climate Change (IPCC) shows that climate change is likely to directly impact the water sector. Climate change may affect both the short-term variability of water resources through increased frequency and intensity of droughts and floods or induce long-term changes in mean renewable water supply. There are anticipated to be a number of changes, including include heavier rainfall during fewer, longer periods, which will lead to more severe floods and droughts the shift of the rainfall towards winter; and significant reduction in the glacial mass resulting in increased flows in the initial few decades but substantially reduce thereafter. Many of the areas that are already facing water shortages will have less supplies in the future thus impacting surface and groundwater availability for irrigation.

The IPCC report further projected that the quantity of surface run-off due to climate change would vary across the river basins as well as sub-basins in India. The Indo-Gangetic basin will experience increased water availability from snowmelt up to around 2030 but face gradual reductions thereafter resulting in increased dry-season water shortages in the downstream. However, there is a general reduction in the quantity of the available run-off. An increase in precipitation in the Mahanadi, Brahmani, Ganga, Godavari and Cauvery are projected under climate change scenarios; however, the corresponding total run-off for all these basins does not increase. This may be due to an increase in ET on account of increased temperature or variation in the distribution of rainfall. In the remaining basins, a decrease in precipitation is noticed. The overall inference is that most of the surface water storages will have increased run off during periods of heavy rains but at the same time will have increased evaporation from large open surfaces of reservoirs due to increase in mean temperature.

Further, the increasing inter-annual variability of the monsoon in the future due to climate change will also affect groundwater recharge. Falling groundwater levels in various parts of the country have threatened the sustainability of the groundwater resource, as water levels have gone deep beyond the economic lifts of pumping. Climate change is likely to increase the demand for groundwater to manage the increasing intermittent periods of limited water availability. Lower groundwater tables and the resulting increase in the energy required to pump water will make irrigation more expensive and increase its carbon footprint.

Analyzing a trend of rising temperature and declining rainfall during 1970-2015, the Economic Survey 2018/19 of the Government of India observed that during the years when rainfall levels drop to 100 mm below average, farmer incomes would fall by 15% during the kharif and 7% during the rabi crops seasons. It points out that climate change could reduce annual agricultural incomes in the range of 15 to 18% on an average for irrigated areas and up to 20-25% for unirrigated areas. To make farming more robust in the face of climate change, it urges the efficient use of technology and crop insurance schemes.

It is an accepted fact that in the post-climate change scenario, systems that are more controlled will fare better than systems that are less controlled. In water resources parlance, control means appropriate engineering infrastructure, institutions and management practices that enables the water managers to store, transfer and deliver water with greater certainty, thus reducing the impact of uncertainty.

The Standing Sub-Committee of Ministry of Water Resources in its projection for all India water demand by 2050 estimates it around 1,447 bcm. This is primarily due to increasing population, and rapid urbanization and industrialization in India by 2050, leading to higher water demand from all user sectors.

All-India Projected Water Demand in India by Different Uses (2010, 2025 and 2050)

Water demand in BCM									
Different use	Standing Sub-committee of Ministry of Water Resources			National Commission on Integrated Water Resources Development					
	2010	2025	2050	2010		2025		2050	
				Low	High	Low	High	Low	High
Irrigation	688	910	1,072	543	557	561	611	628	807
Drinking water	56	73	102	42	43	55	62	90	111
Industry	12	23	63	37	37	67	67	81	81
Energy	5	15	130	18	19	31	33	63	70
Other	52	72	80	54	54	70	70	111	111
Total	813	1,093	1,447	694	710	784	843	973	1,180

Note: BCM: Billion Cubic Meters.

Source: Compendium of Environment Statistics India, 2011, Central Statistical Office, Ministry of Statistics and Programme Implementation, Government of India.

Therefore, improved water management at the system and user levels, including supply-side and demand-side management interventions, will be necessary to deal with rising demands and climate change. These estimates may require revision if green hydrogen is adopted for large scale energy generation, which requires approximately 9 liters of water to produce 1 kg of hydrogen. India needs to revisit water policy to address the requirements of a growing economy, the structural shift in the economy, urbanization and energy requirement including green hydrogen. Some potential solutions are discussed further below.

Optimising Water Use Efficiency and Water Productivity

Water cannot be created. However, on-going rapid industrialization and urbanization would create competitive demand for water in the medium to long term future. India would have to manage its water to meet the demand of a growing economy and increasing population and that water availability should not become a constraint for growth of economy. Agriculture with a share of 80% of freshwater use, is the largest water consumer sector in India. However, Niti Aayog, Government of India reports that the current efficiency of the irrigation systems in India is low at 30 to 38% for surface water and 55% for ground water[21] and the overall efficiency of irrigation assets is as low at 30%[22].

The availability of water for human consumption and other commercial uses, as well as the prevention of a water crisis, necessitates greater efficiency and productivity in agricultural water usage.

Central Water Commission (CWC), Government of India assesses the water resources potential of India as about 1,999.20 billion m3 (BCM). As regards utilization, however, due to various constraints such as topography and spatial and temporal variation of rainfall, only about 1,123 BCM of the total annual water potential can be used beneficially. Of this amount, it is estimated that 690 BCM is from surface water sources and 433 BCM from groundwater sources[23]. Groundwater, which provides 85% of the country's rural drinking water and about 60% of its irrigation water, is being rapidly depleted. A third of India's groundwater reserves are currently overexploited. Moreover, almost 70% of India's water is contaminated. India also suffers frequently from natural disasters: between 1996 and 2015, 19 million people a year in India were impacted by flooding and 17.5 million people a year were affected by drought[24].

Studies by the International Water Management Institute[25] on future water demand and supply in India found that the Business-as-Usual scenario projects that the total water demand will increase from 680 BCM in 2000 to 833 BCM by 2025, and to 900 BCM by 2050 (22% and 32%, respectively). The study also projects that of the 19 river basins in India, 9 river basins comprising 75% of the total population, will be physically water-scarce by 2050, with the industrial and the domestic sectors accounting for 54% and 85% of the additional demand by 2025 and 2050, respectively. It is predicted that 10 river basins, home to 80% of the total population will see their groundwater tables declining considerable by 2050.

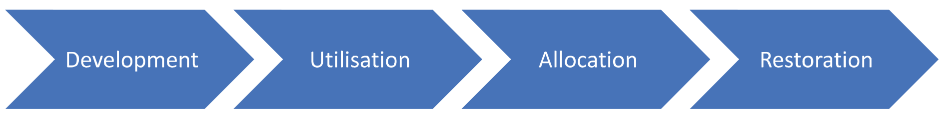
Also, by 2047, while India will continue to be home to about 18% of the world population, it will grow to about 15% of the

21. Niti Aayog, 2018. Strategy for New India @ 75. Niti Aayog, New Delhi | 22. NITI Aayog, 2019. Composite Water Management Index 2019. http://social.niti.gov.in/uploads/sample/water_index_report2.pdf | 23. CWC,2020. Annual Report (2019-20), New Delhi available from web link http://cwc.gov.in/sites/default/files/arcwc2019-20.pdf | 24. International Energy Agency, 2021. India Energy Outlook 2021 - World Energy Outlook Special Report. https://www.iea.org/reports/india-energy-outlook-2021 | 25. Amarasinghe, U.A., Shah T., Turral, H. and Anand, B.K. 2007. India's water future to 2025-2050: Business-as-usual scenario and deviations. Research Report 123, International Water Management Institute, Colombo

world GDP and about 15% of global trade, yet having only just 4% of the world's freshwater resources. Additionally, factors such as increase in per capita water demand due to improvement in the standard of life, adverse impacts of climate change and anthropogenic pollution of water sources and waste water generation may aggravate the situation. India might join the ranks of the world's most water-scarce nations as early as 2047. Yet assessment shows that average annual per capita availability of water (under business-as-usual scenario) will reduce to 1,140 m3/year in 2050, which stood at 5,177 m3/year in 1951 and reduced to 1,820 m3/year in 2001 further plummeting to just 1,545 m3/year by 2011. This means there has been a decline of 70% since 1951.

Consequent to this growth induced demand and anthropogenic factors, the sector focus of water resources in India will need to transit to managing water scarcity and improving use efficiency and productivity.

increasing water use in river basins lead to build up of pressure from demand on water resources and how technical and institutional arrangements may be adapted to cope with this pressure. Based on the changes in technical and institutional arrangement adopted in the water sector, four broad phases have been identified of river basin management: (i) Development; (ii) Utilization; (iii) Allocation; (iv) Restoration./ In each of these management phases different needs and therefore different technical, institutional and organizational structures exist.



MANAGEMENT PHASES OF RIVER BASIN

In the development phase the amount of naturally occurring water is not constrained and expansion of demand drives the need for construction of new infrastructure, with relevant organizations heavily involved in planning, design and construction of water resources projects. Civil engineers dominate the development process. As water becomes scarce due to growing demand, additional spare capacity is created through the construction of more infrastructure, particularly dams, resulting in steep changes in the amount of water available for use.

In the utilization phase the infrastructure is established and the broad goal is to make the most out of these facilities. Creation of additional supplies through further construction activities is constrained and thus increased attention is paid to water management to save water and optimize productivity of available water. In this phase organizations are primarily concerned with management within discrete units for irrigation, water supply, industry, hydro-electric power, etc.

In the allocation phase, as depletion approaches the potential available water there is limited scope for further development. Various measures are taken to maximize the productivity of water and managing demand becomes an issue. With little opportunity for making real water savings, reallocation of the available water from lower to higher priority/ value uses takes place. Organizations are primarily involved in allocation, conflict resolution and regulation, with several management and regulatory functions gaining prominence, such as inter-sectoral allocation and water trading. Coordination between the different, competing interests becomes an issue and moves are made to form coordinating bodies for river basin management to resolve conflict and facilitate management.

During the restoration phase, efforts are made to reestablish a sustainable equilibrium between the river basin and its renewable resources. In many cases water is being abstracted beyond the renewable resource, this is particularly the case with groundwater where the resource is mined and groundwater levels fall year-on-year. Measures here may include tight controls on groundwater abstraction, taking irrigated areas out of production and limiting industrial development in the river basin. Some technical interventions may be possible in this phase, such as inter-basin transfers or groundwater recharge, but regulation (particularly enforcement) and management will likely play the largest roles.. Political involvement is also required where tough decisions are required to return the basin to a balanced situation.

It may be anticipated that increasingly states and river basins in India will progress into the allocation and restoration phases as the country grows to become a developed economy with world's 3rd largest GDP with a huge urbanized and middle-class population by 2047. This presents a challenge for India's water resources sector across all areas of use (agricultural, drinking water, industry, and energy), to ensure that it does not become a roadblock for the India@2047 vision. Using appropriate technological, institutional, management and economic interventions, managing water scarcity and improving use efficiency and productivity will emerge as the primary sector strategy and areas of investment.

26. Keller, J., Keller, A., and Davids, G., 1998. River Basin Development Phases and Implications of Closure. Journsl of Applied Irrigation Science 33(2), 145-163 | 27. Molden, D., Sakthivadivel, R. and Samad, m., 2001. Accounting for Changes in Water Use and the Need for Institutional Adaptation. In Abernathy, C. L. (ed.) Intersectoral Management of River Basins. IWMI, Colombo, pp. 73-87

More Storage Capacity For Better Managed River Basins – New Projects And Completion Of Incomplete Irrigation Projects

Despite the huge investment made in developing the irrigation potential in India through construction of irrigation projects and command area development, there still remain a number of such projects across different states/ UTs which are either under construction / or incomplete for a long time due to lack of resources or other bottlenecks.

To complete the incomplete irrigation projects, government of India has launched specific programs like Accelerated Irrigation Benefit Program in 1996-97 to complete the incomplete irrigation projects. Subsequently, during the year 2015-16, the centrally sponsored scheme Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) was launched with an aim to enhance physical access of water on farm and expand cultivable area under assured irrigation, improve on-farm water use efficiency, introduce sustainable water conservation practices, etc. PMKSY is an umbrella scheme, consisting, inter alia, of two major components namely, Accelerated Irrigation Benefit Programme (AIBP) for completion of irrigation projects, and Har Khet Ko Pani (HKKP) for on farm development of irrigation facilities

Yet of the 110 irrigation projects been taken up under the PMKSY-AIBP, only 50 projects have been completed and the remaining 60 are still under implementation. In addition, there are many projects started by state governments which are yet to be completed. Faster implementation of these projects would assist in better managed river basins.

It is crucial for India's development and progress to liberate agriculture from monsoon fluctuations and allow farmers to conduct their trade with assured and reliable irrigation services. Delay in completing the irrigation projects translate into loss of income for farmers, reduced food security for people and depressed agricultural growth and GDP. Hence, priority needs to be given in allocating public funds and enhancing investments to the necessary levels in completing these on-going and under construction irrigation projects in a time bound manner, both in terms of main distribution system (dams, canal networks, etc.) and the on-farm works (field channels / field drains).

Further, completing the on-going and under construction irrigation projects will enable the water managers to store, transfer and deliver water with greater certainty, thus reducing the impact of uncertainty in terms of climate change impacts and facilitate states and river basins to progress into the allocation and restoration phases of water sector management and governance, preparing India all the better for its future water security.

Inter linking of rivers - National Water Grid

The idea behind the interlinking of rivers is that many parts of the country face problems of drought while many others face the problem of flooding every year. The Indo-Gangetic rivers are perennial since they are fed by rains and the glaciers from the Himalayas. The peninsular rivers in India are, however, are more seasonal in nature as they are rain-fed mainly from the south-west Monsoons. Due to this, the Indo-Gangetic plains, more often than not, suffer from floods while the peninsular states suffer from droughts. If this excess water can be diverted from the plains to the peninsula, the issue of floods and droughts can be managed to a la rge extent.

The National River Linking Project (NRLP) envisages the transfer of water from the water-excess basin to the water-deficient basin by interlinking 37 rivers of India by a network of almost 3000 storage dams. This will form a gigantic India National Water Grid. There are two components to this project:

- Himalayan Component (14 Projects)
- Peninsular Component (16 Projects)

Under the Himalayan component of the NRLP, there are 14 projects in the pipeline. Apart from controlling flooding in the Ganga-Brahmaputra River system, it will also benefit the drought-prone areas of Rajasthan, Haryana and Gujarat. This component has two sub-components:

- Connecting the Ganga and Brahmaputra basins to the Mahanadi basin
- Connecting the Eastern tributaries of the Ganga with the Sabarmati and Chambal river systems

The Peninsular component of the NRLP envisages the linking of the 16 rivers of southern India. Surplus water from the Mahanadi and the Godavari are proposed to be transferred to the Krishna, Cauvery, Pennar, and the Vaigai rivers. Under this component, there are four sub-component linkages:

- Linking Mahanadi and Godavari rivers to Cauvery, Krishna, and Vaigai river systems
- Ken to Betwa river, and Parbati and Kali Sindh rivers to Chambal river
- West-flowing rivers to the south of Tapi to the north of Bombay
- Linking some west-flowing rivers to east-flowing rivers

The Inter-linking of Rivers has many challenges like sub-project feasibility, environmental impact management, inter-state disputes, international disputes, financial resources, and implementation capacity. A dedicated national agency with state participation and time bound programs with financial resources is essential to meet the objectives of the program and accommodate the demands of a dynamic economy.

Interlinking of Rivers In Andhra Pradesh – Godavari-Krishna Link and Krishna-Pennar Link

The Krishna and Pennar river basins are closed basins as the dependable water yields are fully utilised for irrigation, industry and drinking water. Moreover, part of the Pennar river basin is drought prone area with rainfall of about 600 millimetre per year. On the other hand, the Godavari river basin has surplus water due to multiple technical constraints on utilization and as result more than 2000 TMC water flows into the sea every year. Therefore it was envisaged to create a link to transfer surplus water of Godavari river to Krishna river which in turn to be transferred to drought prone areas of Pennar river basin. The government of Andhra Pradesh, in record time and as a first in the country, completed the Pattiseema Lift Irrigation Project on Godavari river to transfer 80 TMC surplus water travelling over 174 km to about 12 lakh acre ayacut of Krishna delta, downstream of Nagarjuna Sagar project. As a result, this saving of 80 TMC of water in Krishna basin could be transferred through Pothireddypadu regulator upstream of Nagarjuna Sagar and Srisailam projects, to Pennar basin via a network of canals, balancing reservoirs, major, medium and minor irrigation projects. Upon completion, Polavaram project will transfer this water through a gravity canal.

Managing Ground Water Sustainably

In the latest assessment in 2022 by the Government of India, the total annual ground water recharge has been assessed as 437.60 bcm. Keeping an allocation for total natural discharges at 36.85 bcm, the annual extractable ground water resource works out as 398.08 bcm. The total annual ground water extraction (as in 2022) has been assessed as 239.16 bcm. The average stage of ground water extraction for the country as a whole works out to be about 60.08%.

The extraction of ground water for various uses in different parts of the country is not uniform. The 7,089 assessment units (blocks/ districts/ mandals/ talukas/firkas) in the country are in different stage of ground water extraction.

Sl. No.	Category	Number of Assessment Units		Recharge worthy Area		Annual Extractable Ground Water Resource	
	Number	%	lakh km	%	bcm	%	
1	Safe	4,780	67	16.18	66	291.88	73
2	Semi Critical	885	12	3.03	12	47.00	12
3	Critical	260	04	0.77	3	13.02	3
4	Over-Exploited	1,006	14	4.30	17	46.05	12
5	Saline	158	02	0.40	2	NA	NA
	TOTAL	7,089		24.69		398.08	

The over-exploited assessment units are mostly concentrated in (i) the north western part of the country including parts of Punjab, Haryana, Delhi and Western Uttar Pradesh where even though the replenishable resources are abundant, there have been indiscriminate withdrawals of ground water leading to over-exploitation; (ii) the western part of the country, particularly in parts of Rajasthan and Gujarat, where due to arid climate, groundwater recharge itself is limited, leading to stress on the resource and (iii) the southern part of peninsular India including parts of Karnataka, Tamil Nadu Telangana and Andhra Pradesh, where due to inherent characteristics of crystalline aquifers, the ground water availability is low.

The main source of replenishable ground water resources is recharge from rainfall, which contributes to nearly 61% of the total annual ground water recharge and the share of recharge from 'Other sources' viz. canal seepage, return flow from irrigation, recharge from tanks, ponds and water conservation structures summed is 39%.

It may be recalled that currently groundwater provides 85% of the country's rural drinking water and about 60% of its irrigation water. Moreover, it is anticipated that a substantial part of increasing demand of water will have to be met from ground water sources leading to higher stress and over exploitation. As a result, IWMI projects that by 2050, groundwater tables would fall significantly in 10 river basins which are home to 80% of India's total population.

To prevent water from becoming a bottleneck in India's economic and social development, the government must implement a long-term program of sustainable ground water management.

These may include both supply and demand side interventions ranging from technical, institutional, regulatory, productivity and management actions, especially through improved data-driven decision making and participation of all stakeholders for all user sectors. Several states have successfully piloted such interventions demonstrating feasible strategies with reliable positive results. It may be necessary to critically review all these interventions and develop a comprehensive program for sustainable management of ground water within an aquifer and river basin framework.

Managing Water Pollution - Water Recycling – "Creating" Water

Water pollution is one of the biggest emerging water resource issues facing India right now. While untreated sewage is the biggest source of such form of pollution, there are other sources too such as runoff from the agricultural sector (fertilizer contaminated) as well as unregulated discharges from industry, primarily the small-scale industries. Almost 80% of India's waterbodies are considered to be severely polluted, and the situation is so dire that it's possible there is no water body in India that has not been contaminated to some level or another.

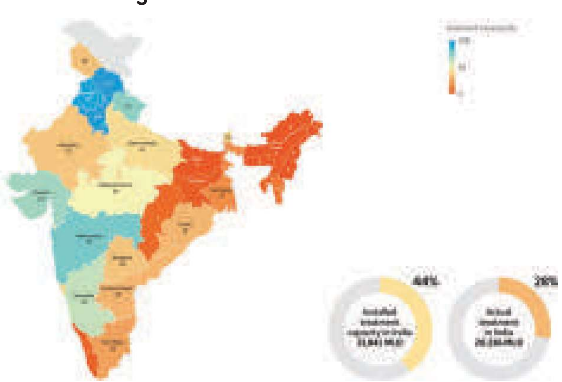
The single biggest source for water pollution in India is urbanization which is happening at an unregulated rate across the country. This has led to several environmental issues like paucity in water supply, generation and collection of sewage and waste water, etc. to name a few. The treatment and disposal of sewage and wastewater has also been a major issue in this regard. In most cases, cities and towns use the neighboring water body – river or lake, etc. as the disposal site with or without treating the sewage and waste water, leading to high pollution levels in these water bodies. Urban polluted water also seeps through the surface and poisons the groundwater.

About 35% of India's total population is concentrated in urban centers, where the estimated sewage and wastewater generation is 72,368 million liters per day (MLD) (CPCB 2021). This estimate is almost double of its rural counterpart, which is 39,604 MLD, making the total sewage and waste water generation in India to 111,972 MLD.

Inadequate and limited sewage and wastewater treatment facilities pose a threat to water quality and public health. In India, the total installed capacity to treat wastewater (domestic sewage) from the urban areas is 44%. However, actual treatment being done is only about 28%. Even in class I (whose populations are above 100,000) and class II (whose populations are in the range 50,000–100,000) towns - which represent 72% of the urban population - only 30% of the sewage and wastewater is treated. The remaining untreated wastewater is discharged into natural water bodies, such as rivers and lakes, which leads to pollution and impacts the water quality, especially for the communities in the downstream areas.

Nevertheless, India has made substantial progress in strengthening its operational treatment capacity, from only 18,883 MLD in 2014 to 26,869 MLD in 2020, which is an increase of over 40%. But there is still a long way to go before we can effectively manage sewage and wastewater and meet the problems posed by water contamination from the dumping of untreated sewage and waste water.

Sewage Treatment Capacity in Most States is Below 50% of Sewage Generation



Promoting Recycling of Water

As mentioned above, the severity of water crisis in India is increasing with each passing day. The reuse of treated waste water (TWW) can act as a crucial resource to meet the rising demands across different sectors. However, TWW reuse is very limited even in the major urban agglomerations of the country. For instance, it is 49% in Chennai, 19% in Delhi, and 6% in Hyderabad (IWA 2018). Although India's sewage treatment capacity has seen an increase of over 40% in the last few years, there is still a significant gap in terms of mainstreaming TWW reuse across different sectors. However, TWW is receiving increasing traction. If treated (to the desired quality standard) and reused, this offers tremendous potential in addressing the water supply and demand gap on one hand and reducing the pressure on freshwater resources on the other.

According to an analysis based on urban population projections (using data from MoHUA 2019) and considering that 80% of water supplied to domestic users in urban areas returns as waste water (CPCB 2021), sewage generation is estimated to more than double by 2050 from the sewage generation level of 2010. India should aim at about 80% of the sewage being recycled for multiple non-potable usage which seems feasible, given the accelerated addition to the sewage treatment capacity in India over the last few years (2014–20). This TWW water is equivalent of irrigation requirement of about 5 million Ha. The reuse of TWW for irrigation presents an opportunity to reduce pressure on groundwater and also to minimize fertiliser use on account of the inherent nutrient value of waste water, assuming that secondary treated waste water will be used for irrigation.

However, the reuse and recycling of TWW has still not become mainstream in India. Only a few Indian states have framed policies and guidelines to promote the reuse of TWW. Further, a national-level framework on the safe reuse of TWW that provides guidelines on preparing reuse policies was launched only as recently as January 2023. Therefore, the existing state policies might also require a thorough revision to make them comprehensive and channel the financial and technical support available through national programs. The central and state governments may also consider providing incentives to private investors under PPP projects to promote reuse of TWW and support awareness generation campaigns amongst the people and other stakeholders to create a willingness and demand for TWW reuse. In the future, commercialization of desalination of sea water will open new avenues for water supply augmentation.

EPILOGUE

Forging Coalition for Definitive Future Actions

The present publication provides a summary synopsis of the thinking of Shri Nara Chandra Babu Naidu, Chairman, Global Forum for Sustainable Transformation and within GFST on the 5 issues of

- Indian Economy as Global Economy - Indians As Global Citizen and Indian Inc as Multinational;
- Demographic Management and P4 Model of Welfare;
- Technology and Innovation - Leaders of Future,
- Energy Secure India - Democratisation, Decarbonation and Digitalisation; and
- Water Secure India;

The team consider as significant strategic areas for consideration for India 2047. As mentioned by Shri. Naidu in his Foreword, the publication is not meant to be a comprehensive compendium of all actions to be taken for India to become a developed economy by 2047, but as a catalyst to ignite wide-ranging discussions and action amongst the stakeholders, not only on these 5 ideas but also on others' ideas by other groups/ people in accordance to their respective priority thinking.

Shri. Nara Chandrababu Naidu is releasing the draft version of the present publication on August 15th, India's Independence Day to seek reviews and comments from all concerned stakeholders - think tanks, corporates, research and academic institutions; public leaders, people in general, students, etc. It is hoped that overtime GFST will be able to forge partnerships with like thinking groups and people in taking these and other emerging ideas forward to fruition through definitive actions.

To facilitate such partnership building, GFST will establish and host multiple communication platforms for exchange of knowledge and ideas. It will set up Task Force/ Working Groups around each of the 5 strategies proposed here by inviting sectoral thinkers and practitioners to join and contribute. GFST will also create and host five online discussion groups around these 5 strategies to make ease for contributors to provide their inputs. A series of stakeholder consultations/ symposium/ webinars/ etc. may be organized by GFST for more structured discussions on specific aspects to elicit specific inputs towards finalizing the 5 strategizes. Based on reviews, comments, inputs received across all these multiple communication platforms, GFST will then consolidate the ideas and revise it into a final publication for forging coalition for definitive future actions.

To take this initiative in formulating the 5 Ideas for India 2047 to a successful and doable conclusion, GFST hence solicits your time, knowledge and experience in putting together a sincere effort towards a vision of DEVELOPED INDIA by 2047.

GFST

Global Forum for Sustainable Transformation

Corporate Office: #409, Fourth Floor, Plot No: 14
Shangrila Plaza, Road No. 2, Banjara Hills, Hyderabad, Telangana – 500034

Visit us on www. gfst.in
info@gfst.in / gfst2022@gmail.com

gfst_official @gfstofficial gfst