

Bengaluru Rivers and the Water-Energy-Waste Nexus

Panel Discussion (Webinar)

Co-hosted by



PUBLIC AFFAIRS FOUNDATION
Partnership for Better Governance



Friday, September 25, 2020

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Background

To celebrate the World Rivers Day which is annually observed on the last Sunday of September every year Public Affairs Foundation (PAF) and Bangalore Political Action Committee (B.PAC) co-hosted a Webinar titled, *Bengaluru Rivers and the Water-Energy-Waste Nexus* on Friday, September 25, 2020. Coincidentally the World Rivers Day was celebrated on Sunday September 27, 2020 this year.

The Webinar highlighted the water crisis issues including groundwater supply and conservation of river basins in Karnataka state. The webinar was attended by over 30 participants.

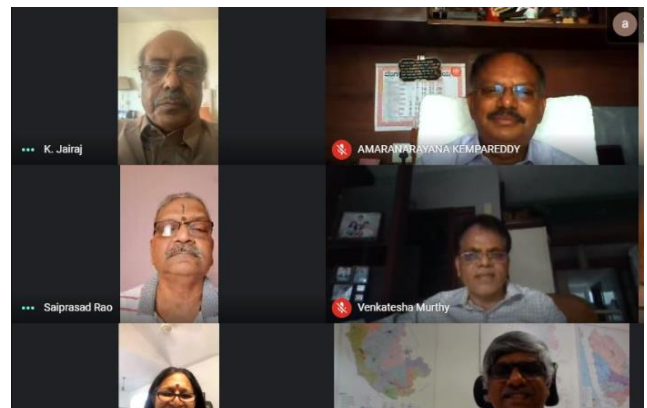
Dr. Annapoorna Ravichander, Executive Director, Public Affairs Foundation welcomed all the panelists and participants and briefly introduced, the purpose of the webinar. She also introduced the eminent list of panelists.

A trailer on the documentary SuryaGanga was shared with the audience. (https://www.youtube.com/watch?v=H5Yd_rhyI04)

Suryaganga showcases the epic conflict between India's land, energy, water and people. It also depicts a wild and intense ride of three curious citizens who attempt to unravel the connection between India's vanishing rivers, massive energy projects and the quiet rise of renewable energy. The documentary is produced and directed by Valli Bindra.

The event began with Dr. Annapoorna Ravichander, Executive Director of PAF welcoming the Panelist and the audience, she then introduced the panelists who included:

- Mr K. Jairaj, IAS, Retd. Addl. Chief Secretary, GoK & Addl. Chief Secretary, Energy Dept., GoK
- Dr P. Somashekar Roa, Director (Technical), (ACIWRM), GoK
- Mr. Vishwanath S, Trustee, Biome, Environmental Trust
- Dr. Meena Nair, Head-Research, Public Affairs Centre





Revathy Ashok, Hon. CEO, Bangalore Political Action Committee (B.PAC) moderated the Webinar. She set the stage by broadly raising the following:

1. How are renewable energy resources which is available to?
2. How can we curb water scarcity issues?
3. What measures are needed to be taken to address water scarcity?
4. How effective sewage water treatment can play a crucial role in uplifting water quality?

Response from Panelists

Revathy Ashok began the panel discussion by asking a question to Mr. Jairaj

Question: Nexus between water-based energy and waste management and how should Karnataka government should be at some of these issues which are so critical and Bangalore in particular

In this water-energy-based nexus, there are a lot of issues such as pollution, scarcity etc., hydroelectric power has a large resource of energy in Karnataka this has always been contentious with so many litres above the sea-level. How do you see the role of hydroelectricity in Karnataka in the coming days, and how solar energy has raised ahead in Karnataka?

Mr. Jairaj shared a brief history of hydropower and energy in Karnataka, drawing from his vast experience as a retired Additional Chief Secretary overseeing the energy portfolio. He commented that while the state has been a pioneer in hydro power, recent knowledge of the impact of these projects on the environment, coupled with the expansion of solar and wind point towards a future of less dependence on hydro and greater investments in solar and wind in Karnataka. He also added that efficient usage of water and better demand management would also be critical in ensuring long term water security in Bengaluru, as well as establishing some limits to the growth and expansion of the city itself.



The following points were also highlighted:

- Karnataka state is largely dependent on hydro resources accounting to 2/3rd of hydro projects such as giant Sharavathi projects

- Challenges such as non-availability of coal resource in the state after 1950; non-working condition of Raichur Thermal plants led to the development of Hydropower projects
- During the Sharavathi project, vast forest regions were occupied for dams and various others constructions for which disputes on payment settlement are still unresolved

"Over the last 25 years, there is a drastic change in Hydro resource utilisation. Karnataka is the first state to have Solar & Hydro projects. Sooner things will make a shift from Hydro to Solar. There is a lot of untapped solar potential in the north Karnataka region."

"Many Analysts are today predicting scarcity of water due to the burgeoning population and increasing per-capita water consumption assumed to be less than 100,"

The next question was posed to Dr. Somashekar Rao.

BWSSB boards are the main water supplier sources to only 50% of Bangalore's population and remaining device water on their own, how can this be possible? We also observed that water tankers supply to the remaining population, how do they manage to get water when the authorised body could not arrange



Dr. Rao responded, in our country, we have planning for development of cities, transportation and industry, while we lack a proper focus on Water Resource Planning though it vastly contributes to the GDP. A lot of city expansions, new layouts formation occurs every year and water connectivity in these city expansions are presumed to be managed by BWSSB Board, bore wells and ground water.

He also added that tanker business accounts for approx. 6000-7000 crore market size. They manage to procure water from city peripherals and nearby places of big cities. To track these activities an app-based technology can help to capture the data from where water is procured and to whom it's supplied. This will settle a lot of issues and ensure transparency into water supply in real-time.

Water budgeting planning such as data collection on how and from where water is procured will give transparency to real issues and create a sense of purpose amongst people and debates will take place, thus leading to a creation of water policies with legal.

He concluded by saying waste water treatments should also get some subsidies just like solar powers. BWSSB will set specific goals to initiate subsidies for a few sectors that take up water recycling and water saving.

Dr. Rao emphasised the importance of making water planning integral to a city's masterplan, and also talked about how this is rarely the case in the current scenario. Transportation, economic development, and housing take precedence and water resource management is de-prioritized despite being central to growth in a city. He also discussed the need for strong measurement and data openness and transparency to inform better decision making. He also mentioned that a River Health Index was being developed by his department and would be shared in the near future.

Revathy Ashok posed the next question to Vishwanath Srikantaiah.

How can rainwater harvest save the depleting water levels in rivers like Rishabhavathi & Sharavathi? Is rain water harvesting a bigger way and a policy by the government for water harvesting?

Vishwanath, who is popularly known as Zenrainman shared his perspective covering the history on how rivers and water bodies that are indigenous to Bengaluru have deteriorated and as a result this has affected the city with drought and famine for three consecutive years. During these catastrophic events, lakhs of people lost their lives.



Between 1894-1996 Cauvery became the source of water and people started moving away from local water sources associated with Hessarghatta Lake, Dakshina Pinakini River and Rishabhavathi. Later Bengaluru city got electricity in 1911 using water and water meters and volumetric for water in 1930.

Talking on the current water quality issues - only 2% of fresh Cauvery water is available to Bengaluru. As local water bodies are ignored by citizens and the government, these local water bodies are used as dump yards and as a result sewage water flows and mixes with ground water resources supplied by tankers. This can be addressed by using water treatments and strengthening water networking to supply clean water in Bangalore.

The quality of water can be improved by investing in the projects taken up by the World Bank and Swiss. Surprisingly, the wastewater treatment is currently fed to 130 tanks in 110 drought affected areas of Kolar.

The central role of the political economy in prioritizing water management. He said that correct pricing of water - ensuring it is both accessible as well as fairly priced to incentivize conservation - is key to scaling water efficiency. He also discussed how inadequate capacity and funding are the fundamental reasons for BWSSB being unable to scale water access, treatment, and other programs to all users sufficiently and also the main reasons for the deterioration of rivers which we see today.

Dr. Meena Nair the next panelist was asked to share on the consumer study she led in partnership with BWSSB a few years ago.



Dr. Meena Nair covered various aspects of consumer's grievances concerning water consumption, connectivity of water to households, and measurement of water quality parameters.

One of the key observations from the study included that the plumbers employed to provide water connection to households charged more than two thousand rupees. It was interesting to realise that the plumbers employed who were actually licensed plumbers, who went to places directly to give the water connection. Many people were charged a huge amount by the plumbers, who went for repairs, leakages and rectifying other water connectivity issues.

She added a better application and data collection process to track such anomalies or illegal activities is important. People are aware of water taxes and still continue paying huge sums of money for water connections illegally because of their need. Some of the people that we interviewed were actually staff members who are aware of water thefts and motors being planted to draw water illegally.

She also added that there are many recommendations supported by the controller and auditor general of India, which was put forth in the report stating that 40% percent issues captured were related to water leakages, and overflows.

Several recommendations were made for improvement that came directly from BWSSB. Some of these included streamlining registrations for new connections, instituting a 24x7 leak repair team, and addressing inequalities in water supply between zones. Another recommendation suggested was water used in construction sites is mostly groundwater and this decreases the drinking water supply to the population. One best way is to recommend using treated water for construction and decrease the usage of groundwater. This should be adopted at a large-scale and this was also accepted by then Chairman of BWSSB

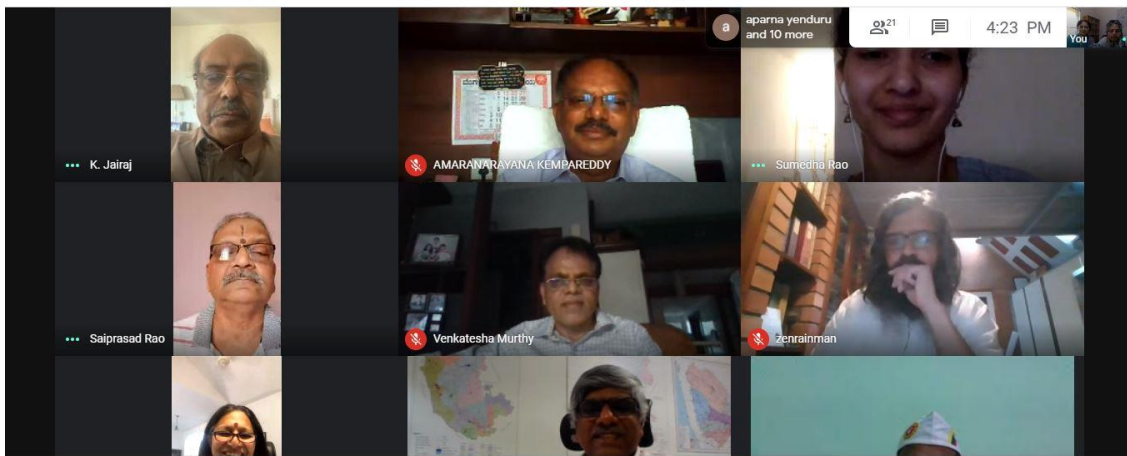
Conclusion

The panel discussion concluded with Revathy Ashok inviting all the panelists with a parting thought and the following recommendations were shared:

"Water quality is a systemic issue all over the Karnataka state. River Kaveri is one of the pristine water resources and economic engines which drives 50% GDP of Bengaluru. It is our responsibility to preserve and restore our state's own natural resources," Vishwanath Srikantiah

"In a practical view, I would like to caution people to use water effectively. Be it for corporates or industrial or any household purpose. So that, the availability of water in slum areas of Bengaluru is at the normal-level, if not at the larger level" Jairaj

"Bangalore has been very active in terms of various associations and committees concerning water management. Maybe a kind of bottom-up awareness and governance-related awareness campaigns will help to reduce conserve water. It is high time we bring in resident welfare associations and committees that can ensure efficient water supply to localities," Dr. Meena Nair,



PANELISTS

Mr K. Jairaj, IAS

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GoK & Addl. Chief Secretary,
Energy Dept., GoK

Dr P. Somashekar Rao

Director (Technical),
(ACIWRM), GoK

Mr Vishwanath S.

Trustee, Biome
Environmental Trust

Dr Meena Nair

Head-Research,
Public Affairs Centre

MODERATORS

Dr Annapoorna Ravichander

Executive Director, Public
Affairs Foundation (PAF)

Ms Revathy Ashok

Hon. CEO, Bangalore Political
Action Committee (B.PAC)

A vertical poster for a B.PAC webinar. At the top left is the Public Affairs Foundation logo. At the top right is the B.PAC logo with the tagline 'Let's Be Better'. The main text reads 'B.PAC WEBINAR IN PARTNERSHIP WITH THE PUBLIC AFFAIRS FOUNDATION BENGALURU, RIVERS, AND THE WATER-ENERGY WASTE NEXUS'. Below this, it says 'FRIDAY SEPT 25 2020 | 3 PM'. At the bottom, it says 'JOIN THE SESSION @ https://meet.google.com/asq-fzcf-hfg'.





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