

# Thinking critically about the future of water security in Bengaluru, India using Transformative Scenario Planning

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Written by Prathijna Poonacha, Maitreyi Koduganti



The five-year ASSAR project (Adaptation at Scale in Semi-Arid Regions, 2014-2018) uses insights from multi-scale, interdisciplinary work to inform and transform climate adaptation policy and practice in ways that promote the long-term wellbeing of the most vulnerable and those with the least agency.

## KEY POINTS

- A set of 26 stakeholders from across the system brought in varied concerns and perspectives about Bangalore's water situation.
- Participants agreed that collaborative action among different actors and appropriate institutions to manage water resources were the two most important aspects to deal with regarding the future of Bangalore's water.
- Most participants agreed that there was value in such a collaborative effort such as TSP and while they had the opportunity to interact with stakeholders with varied perspectives regarding Bangalore's water, they also learnt about a new methodology in the process.

## Overview

Bangalore's water situation is in crisis. There are several issues plaguing the city which include declining groundwater levels, supply shortages, pollution and contamination of water bodies, frequent flooding of low lying settlements, encroachment of lakebeds and storm water drains. Projected decrease in precipitation and water yield in the Cauvery basin coupled with increased frequency of extreme events indicate elevated levels of water stress thus posing a challenge to the sustainability and livability of the city. Finding solutions to these complex problems in an integrated manner is above and beyond the scope and capacity of any one agency, authority, user or organization, hence necessitating the involvement of all stakeholders.

Transformative Scenario Planning (TSP) offers a useful way forward in addressing such complex, stuck issues. Developed by [Reos Partners](#), TSP is a participatory process that engages with multiple concerned stakeholders, to create a shared understanding of what is happening in their system and what actions the stakeholders can, must and will take to address them. Structured around the development and use of scenarios, it provides a framework and language for strategic conversations within and across stakeholder groups.

Here we provide an overview of the proceedings of the first workshop titled 'Water and You – Bangalore's Future' convened by Indian Institute for Human Settlements in July, 2017.

# The TSP Process



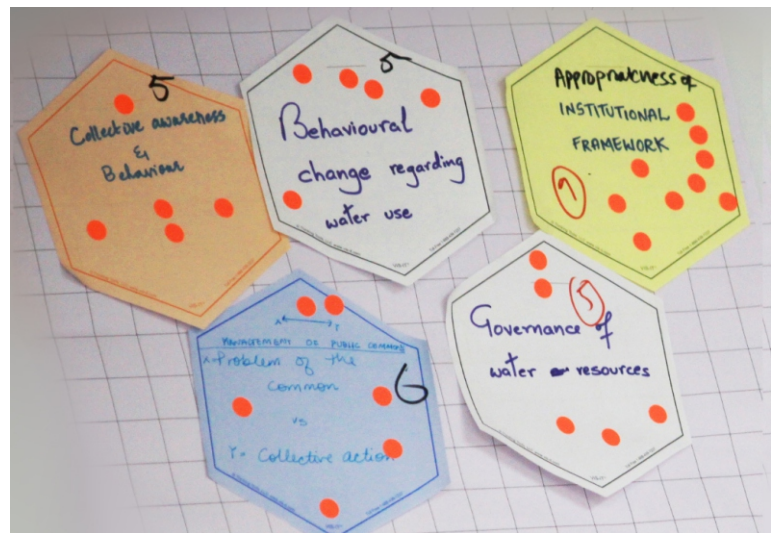
## Step 1: Convene a team across the whole system

The workshop brought together a total of 26 stakeholders all concerned in one way or the other about the future of Bangalore's water. The group was made up of: municipal officials, community leaders, academic experts, NGO representatives, representatives of private organizations, artists, and entrepreneurs. Different participants brought in different concerns about water in the city with key concerns revolving around wastewater reuse, quality and quantity of groundwater, impacts of climate change, regional water resource management and allocation, governance of water resources, political will, citizen engagement for water conservation and pollution of water bodies. To enable multi-lingual participation, some people doubled up as translators to aid the ones not conversant in English. Participants expressed that they were willing to listen more and speak less in order to understand the different perspectives present in the room. They also agreed to 'park their cynicism', be open-minded and learn from one-another during the workshop.



**Stakeholder questions**

- Will we be able to create the right institutions and frameworks for water governance?
- Will the Cauvery continue to flow in future?
- How will the population come under control despite numerous efforts that are being taken?
- Do decisions regarding water security for Bangalore account for climate change impacts?
- Will the elite hijack the process of decision making?
- How can we address groundwater abuse in the light of unregulated extraction of groundwater?



Key Drivers - impacting future of water security in Bengaluru



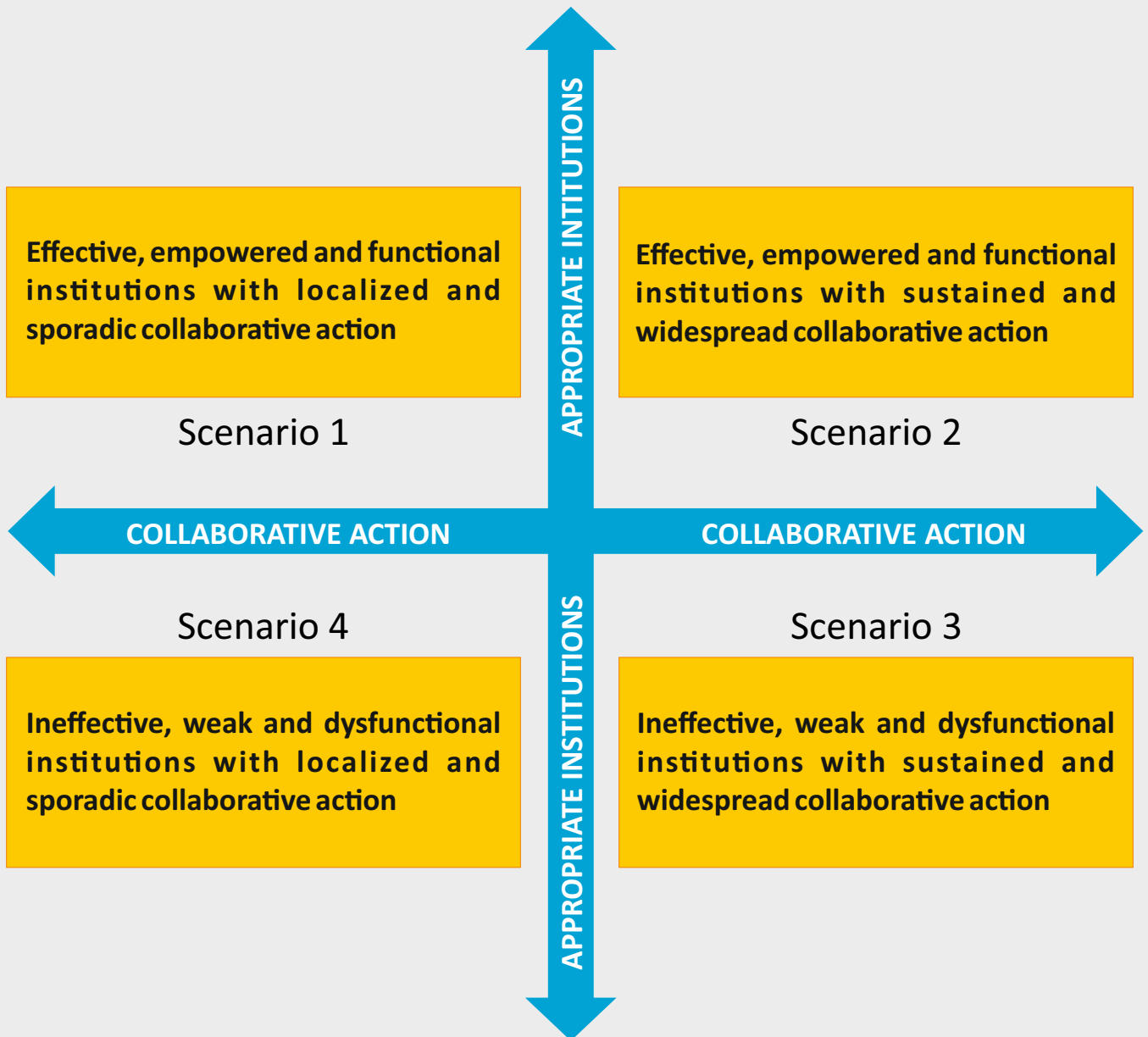
## Step 2. Observe what is happening -Identifying the main drivers of water security in Bengaluru city

In a collective and collaborative exercise, participants used newspaper headlines to illustrate the different aspects of Bangalore's water systems making associations with Social, Technological, Economic, Ecological and Political (STEEP) aspects of the system. Paired walks were used as an exercise to understand the concerns and questions the participants had about the future of water in their city. In an iterative process, more than 35 drivers were identified by the participants which were broadly clustered as: impacts of climate change, social vulnerabilities, water allocation and access, depletion of natural resources, civic involvement, and governance. A voting process helped narrow down the list to five concerns of greatest importance for the participants. Following much debate and discussion, the group decided on two overarching driving forces viz. **'Appropriate institutions'** (that are either effective, empowered and functional or the opposite) and **'Collaborative Action'** (that are either sustained and widespread or the opposite) that formed the axes for the future scenario construction.



### Step 3: Construct stories about what could happen

The stakeholders were divided into four groups to start building the scenarios iteratively based on the interactions of the driving forces plotted on the two axes. Using creative ways such as LEGO building blocks they imagined what the future of Bangalore would look like in relation to its water by 2030 and the steps and events that would unfold, starting from now in to the future in order to get to that end state. At every step the participants were urged to build scenarios that were challenging, plausible and relevant in the context of Bangalore and its present condition. After integrating the feedback from the participants into their scenario, each group presented their story to the plenary in the form of a skit.



## Way forward

The stories constructed during the workshop will be collated and refined by the scenario team in the next few months. Done in an iterative manner, the team will invite suggestions and feedback from all the stakeholders who attended the workshop and other experts in the field, especially to ensure the stories are relevant, challenging, clear and plausible. These stories will serve as the foundation for strategic planning in the second workshop to be held in December 2017 with the aim of identifying how to adapt to, and potentially transform, the future, in relation to Bangalore's water security.





**Back row (from left):** Greeshma Hegde, Tharun Kumar, Adithya Pradhymna, Harpreet Kaur, Harish, Varun Panicker, Veena Srinivasan, Marcella D'Souza, Santosh Raghavan, Nikhil Jain, Harshwardhan, Krishna Balakrishna, Eshwar Kale, Sundar M Senthilnathan **Middle row (from right):** Hemant Pinjan, Prathigna Poonacha, Manjula, Shubha Avinash, Smitha N, Geetika Anand, Shalini Iyengar, Soundarya Iyer, Maitreyi Koduganti **Front row (from left):** Rithwika Basu, Anuttama Dasgupta, Pooja D'Souza, Kumaramma, Teresa Parez, Simar Kohli, Garima Jain, Shobha Reddy, Sankar Subramanyam, M B Krishna, Rajesh Shah  
Missing: Karen Goldberg

## ABOUT ASSAR

ASSAR uses insights from multiple-scale, interdisciplinary work to improve the understanding of the barriers, enablers and limits to effective, sustained and widespread climate change adaptation out to the 2030s. Working in seven countries in Africa and South Asia, ASSAR's regional teams research socio-ecological dynamics relating to livelihood transitions, and the access, use and management of land and water. One of four consortia under the Collaborative Adaptation Research Initiative in Africa and Asia (CARIAA), ASSAR generates new knowledge of climate change hotspots to influence policy and practice and to change the way researchers and practitioners interact.

For more information: ASSAR: [www.assar.uct.ac.za](http://www.assar.uct.ac.za) or email Prathijna Poonacha | [ppoonacha@cariiaa.net](mailto:ppoonacha@cariiaa.net)  
TSP: [www.reospartners.com](http://www.reospartners.com)



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