



100-day Water Policy Action

Submission to Hon. Prime Minister's Office to take the much needed policy action that complements the rainwater harvesting by the community

AN OPPORTUNITY TO REVERSE THE WATER CRISIS BY STROKE OF A PEN

Submission to PMO for Water Policy Clean Up by [Water Resources Council of WICCI](#) March 2021

Honourable Prime Minister

I am writing to you on behalf of the Water Resources Council of Women's Indian Chamber of Commerce & Industry (WICCI). The Water Resources Council of WICCI is on a mission to create a water positive & women inclusive India.

In your recent "Mann Ki Baat" you have beckoned the community for a 100 day Rainwater Harvesting Campaign leading up to the monsoon season. We, the community of concerned citizens, have been carrying out our individual efforts in conserving our precious water resources and protecting the local water bodies.

We offer you a 100 day action plan for changing the drought- driving policies and regulations to the ones that can actively restore the quantity and quality of our water resources. We strongly feel our efforts are not bearing the desired outcomes due to ineffective water policies and regulations at National, State and Local Government level. **You may be surprised how much transformation can be enabled simply by the stroke of your powerful pen.** Once the right water policies are in place, every effort by the concerned citizens will see a multiplying effect translating to a transformative impact.

When the national water policies and the action by the grassroots are in sync, then and only then the restoration and reversal of water crisis can be guaranteed. If we do not do this, the future generation will never forgive the lasting blow that our generation of community and elected officials deliver in completely destroying and depleting our rich water legacy that we proudly sing about as "Vindhya Himachal Yamuna Ganga" in our our National Anthem and describe our land as "Sujalam Sufalam" in our National song.

We hope you will open your heart and mind in leading the 100-day action plan by the PMO in creating enabling water policies and regulations that actively restore and continue to protect our water resources.

Yours sincerely



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Policy Suggestions for Safe Drinking Water & Water Based Livelihood Opportunities

Policy Suggestion # 1

CONTEXT: Rampant & indiscriminate sale of Reverse Osmosis based drinking water treatment unit has resulted in

- indiscriminate cumulative damage to kidneys at wide scale by letting citizens drink mineral-free water on a sustained basis, all in the name of cleaning water even where the raw water is not high in salt. That's why the World Health Organisation had to bring out a circular cautioning against indiscriminate use of Reverse Osmosis as a water treatment method.
- High volume of water wastage since RO processes reject 70 to 80 percent of water while providing only 20 to 30 % of raw water as treated water
- Killing of the uptake & sale of low cost hand -made “point of use” water filters that do not use any electricity or mechanical moving parts using highly effective filters that can remove wide range of pollutants and contaminant including microorganisms, iron, arsenic, fluoride, turbidity

SUGGESTED POLICY Prohibit the use of all sizes of RO based water treatment for drinking water except when highly saline water is the source of raw water

Impact of Suggested Policy

- **HEALTH** Prevention of kidney failures of citizens who would be drinking water from RO treatment units over the years. Allowing them to opt for point of use treatment that are more conducive to their health
- **LIVELIHOOD** Increase in livelihood opportunities of rural and urban entrepreneurs who can be making and selling point of use water filters that can provided treated water
- **WATER CONSERVATION** Significant reduction in water that is wastage in the form of Reject Water

Policy Suggestion # 2

CONTEXT - Lack of access to safe water sources is a leading risk factor for infectious diseases, including cholera, diarrhoea, dysentery, hepatitis A, typhoid and polio. It also exacerbates malnutrition, and in particular, childhood stunting. In the chart we see that it ranks as a very important risk factor for death globally.

POLICY SUGGESTION

Introduce a policy that

- a) requires Ministry of Jal Shakti to ensure that the water supplied as part of the Har Ghar Mein Nal scheme is free from arsenic, fluoride, iron or any contaminant at the point of use by households by incorporating appropriate community scale water treatment units as part of the water supply scheme,
- b) Mandates conducting & displaying water quality test results by the community managing the water service on a regular (monthly as a minimum)
- c) Promotes the uptake of low tech point of use family sized and community sized water filters that require no electricity and no mechanical moving parts that have been duly tested and approved by relevant Government agencies.

Impact of Suggested Policy

- HEALTH Prevention of water borne diseases like diarrhea.
- LIVELIHOOD Increase in livelihood opportunities of rural and urban entrepreneurs who can be manufacturing and selling “point of use” water filters that can provide treated water

Policy Suggestions for Restoring & Sustaining Groundwater Levels

Policy Suggestion # 3

Policy that provides conditional and controlled drilling of borewells such that

- Borewell drilling is permitted on the condition that the applicant submits
 - Proof of having built a groundwater recharge structure
 - Proof that the borewell is drilling into a rechargeable shallow aquifer and not un-rechargeable deep aquifers.
 - A borewell water extraction plan that shows that the extraction will be less than the volume of water recharge.
 - Proof of having installed a water meter with a geo-tagging & IoT device that is capable of relaying the volume of water extracted by the well each day to confirm groundwater extraction is lower than the groundwater recharge capability of the recharge structure.
- Borewell drilling that does not meet the above conditions should be considered a criminal offence and reportable to the local police station.

Impact of Suggested Policy

- **GROUNDWATER LEVEL** - Prevention of further depletion of water in the aquifer storage while recharge measures help to gradually refill the storage levels,

Policy Suggestion # 4

CONTEXT: Currently, when a land is owned by the Forest Department including the ones leased out for farming purpose, building a watershed structure requires a complex and lengthy bureaucratic approval process. This has resulted in thousands of acres of land in rural areas devoid of groundwater recharging leaving millions of farmers with no water.

SUGGESTED POLICY

A policy that mandates Forest Department to prioritise (on a war footing & urgent basis) the building of groundwater recharging watershed structures on those lands that have been leased to the farmers.

Impact of Suggested Policy

GROUNDWATER LEVEL - Sustained replenishment and rise of groundwater levels will be the result leading to active reversal of the water stress and prevention of day zero

Policy Suggestions for Creating a Water Literate Generation of Citizens & Building Capacity for Water Relevant Critical Skills

Policy Suggestion # 5

A policy that requires educational institutions

- To develop school curriculum focused on water literacy & science of groundwater to be covered in all classes from year 1 to year 12
- To make water literacy & science of groundwater a compulsory subject to be taught as theory and practice for students of all ages and levels.

Impact of Suggested Policy

CREATING A WATER SENSITIVE & WATER LITERATE GENERATION -

- This will systematically inculcate water literacy & science of groundwater creating a new generation of citizens that respects and values the protection of water resources.
- Increased likelihood of water literate citizens taking up the responsibility for protecting and conserving their local water resources.

Policy Suggestion # 6

[Skill India](#) should add water & soil testing as a skill Organisations such as [Watsan Envirotech Private Limited](#) have the capability to provide hand testing kits and training to any number of individuals esp women across the country.

- [Skill India](#) must procure & accredit the services of such organisations capable of providing such Training.
- Upon receiving the training, the trainees should be accredited as Skilled Soil & Water Testers
- It should be mandatory for local urban and rural governing agencies to employ such testers who are gathering and uploading water and soil quality data that is made accessible to researchers, policy makers and land and water management agencies.

Impact of Suggested Policy

MAPPING OF WATER & SOIL QUALITY DATA & INCREASE EMPLOYMENT OPPORTUNITY

On one hand there is constant lamentation about water and soil quality data being unavailable and on the other hand there is also the problem of growing unemployment. Creating & employing an army of soil and water testers has the capacity to solve both the problems,

Policy Suggestions for Water Sensitive Tourism

Policy Suggestion # 7

Evaluating cities and towns from the point of view of clean water and sanitation and condition of natural assets like trees, quality of water bodies like rivers, ponds and lakes in the city and making the results of evaluation available to Tourists.

Impact of Suggested Policy

WATER SENSITIVE TOURISM & INCREASED TOURISM ACTIVITY & REVENUE

Such an evaluation will

- Incentivise the cities and towns to ensure provision of safe drinking water and to conserve & protect the local water bodies in order to protect & maintain the revenue they receive from Tourism activities.
- Sensitise the tourists to prioritise their touring destinations based on the info that is made available to them on evaluation results. Thus promoting tourism in towns that are water sensitive and water conserving.

Policy Suggestions for Conservation of Water & Restoration of Biodiversity

Policy Suggestion # 8

Impact of Suggested Policy

CONTEXT: Current focus of water body restoration is limited to enhancing the aesthetics & beautification achieved by clean up via dredging & concretization. Rampant dredging & concretization have the potential to adversely impact the biodiversity & groundwater recharge capacity of the wetlands/lakes/ponds. These practices are also resulting in extensive soil mining and illegal activities.

POLICY SUGGESTION

Introduce a policy that

- Explicitly states the objective of water body restoration and rejuvenation as conservation of the water body.
- Mandates submission of a scientific report that provides justification for the dredging and deepening of water bodies along with a statement that the operation would not adversely impact the biodiversity and the groundwater recharge potential
- Also introduces interventions that control pollution at source in the form of gross pollutant traps & rain-gardens in upstream of the water body (structural) as well as behaviour change & awareness raising in the community (non structural)

CONSERVATION OF WATER & BIODIVERSITY

The implementation of the policy will result in conservation of the water bodies as well as biodiversity.

Policy Suggestion # 9

Impact of Suggested Policy

CONTEXT: Educational institutions & students are not being involved in local water body rejuvenation work which is a missed opportunity in local community's capacity building, participation and taking ownership and responsibility for on-going maintenance of cleaned up and restored local water bodies

POLICY SUGGESTION

Introduce a policy that requires all educational institutions to submit

- a time-frame and target to identify a local water body to involve students in cleaning up and work on remediation measures scientifically.& a time-bound plan to work on the remediation of the selected water body and drainage system associated with it.

CONSERVATION OF WATER & BIODIVERSITY

The implementation of the policy will result in conservation of the water bodies as well as biodiversity.

Policy Suggestion # 10

CONTEXT: With more than 20000 small scale sanitation (SSS) systems estimated to be operational today, India represents one of the contexts that is most advanced worldwide in the implementation of decentralised urban wastewater treatment solutions. The current SSS infrastructure is largely funded, implemented, owned and operated by private sector & civil society stakeholders, with limited guidance and supervision from government agencies. Government departments at all levels need to seize the opportunity & take control of the on-going SSS scale-up process. In order to unlock the potential of SSS as a scalable solution for healthy and water-secure cities, the weaknesses in the governance framework need to be addressed in a systematic and collaborative effort. Priority actions have been recommended for effective governance & scale up of SSS in a research report titled “[small-scale sanitation scaling-up](#)” (4S)

POLICY SUGGESTION: The Ministry of Housing and Urban Affairs should explicitly recognize small-scale sewage treatment and reuse systems as a key solution for urban sanitation and water security

Impact of Suggested Policy

WATER CONSERVATION & HEALTHY CITY

Effective scale up of small scale sanitation systems have the potential to make cities and towns free of water pollution as well as make way for reuse and recycle of water for non potable water users, thus reducing the pressure of ever increasing demand of water services of growing population on the centralised long distance water supply and sewerage infrastructure.

Policy Suggestions for Water Sensitive Development Controls

Policy Suggestion # 11

Impact of Suggested Policy

CONTEXT: Currently urban development is approved in isolation without taking cognizant of the impact the development is expected to have on water demand and local flood management infrastructure. This has culminated in cities where flash floods have become a norm and water availability is consistently falling short of the growing water demand.

POLICY SUGGESTION

Introduce development controls that

- Mandates incorporation of water efficiency fixtures, rainwater harvesting & on site water recycling.
- Stipulates incorporation of minimum ratio of hard paved surface area to soft permeable landscaped area (E.g 30:70 or 40:60)
- Requires the developer to submit a report showing pre and post development rainwater balance of the development site to demonstrate how the increased runoff volume is managed in a way that the post development runoff volumes are not exceeding pre-development volumes.

CONSERVATION OF WATER & PREVENTION OF URBAN FLOODS

The implementation of the policy will result in conservation of the water bodies as well as biodiversity.

Policy Suggestions for Sustainable Water Management through Water Accounting

Policy Suggestion # 12

Impact of Suggested Policy

CONTEXT: One of the root causes behind mismanagement & unaccountability of water wastage is the fact that water is not sufficiently measured either at supply side or at the demand or consumption side. Measurement is fundamental to management and accountability. In order to have an effective management through effective measurement, it is imperative to have in place water accounting mechanism.

There is a surge of new technologies that now make it possible to measure, track and map water quantity & quality remotely and in real time. These technologies can be put to good use while also creating a demand for water measurement solutions by water users thus also promoting responsible water use and self accounting of water for better management.

POLICY SUGGESTION

Introduce a water policy that

- Mandates that all residential apartment & house based water communities, water using facilities that are used by companies & other private and public organisations to file an annual water return along with proof of their water consumption recorded through a certified smart water meter
- Mandates all water utilities and urban local bodies to make water plans that are based on evidence from measured water supply and consumption data

CONSERVATION OF WATER & BETTER PLANNING FOR WATER INFRASTRUCTURE

As more and more water using facilities start to measure water consumption and water utilities start to measure water supply, it will reduce the water wastage. The data thus collected will pave way for evidence based planning for water infrastructure.

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Water Resources Council of WICCI

On a Mission to Build

Water Positive & Women Inclusive India

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