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PF 7 :

Jal- Sanskriti & HARIT Pathways: India's Water Heritage for a Resilient Future

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Does Jal Sanskriti & Green Pathways were part of our Culture and Philosophy?

The core ethos of Jal Sanskriti (water culture) and Harit Pathways (green trajectories) can be related to the ecological perspectives expressed in Indian philosophical traditions, including Bhagavad Gita.

The Gita and Nature

- The Gita presents nature (Prakriti) as an integral aspect of the material world.
- The Divine presence through elements and natural phenomena.

Philosophical Alignment: Gita, Jal Sanskriti & Harit Pathways

Water as a Divine Expression (Raso 'ham apsu):

- **Gita (Chapter 7, Verse 8)**: Krishna states, *"Raso 'ham apsu Kaunteya"* — "I am the taste of water." The verse places water among the natural manifestations through which the Divine is described
- **Jal Sanskriti Relation:** This perspective relates with India's traditional water culture, where water bodies such as baolis/stepwells, johads and tanks have historically served practical water-management and community needs. The connection is therefore between the cultural value of water and its practical role in sustaining communities, rather than treating water infrastructure only as a utility.

Reciprocity and the Ecological Cycle (*Yajna*):

Bhagavad Gita (Chapter 3, Verses 12–14): Describes a cycle of **reciprocity and responsible action**. It states that the necessities of life are received through a larger natural and social order, and cautions against enjoying these gifts without giving back. Verse 3.14: **food sustains living beings, food comes from rain, rain is associated with Yajna, and Yajna arises from action.**

Contemporary Relevance: This principle emphasis on **responsible use of natural resources, conservation, and actions that maintain ecological balance**. These ideas are consistent with the objectives of **Mission LiFE**, which promotes mindful and deliberate resource use and sustainable lifestyles.

Policy Integration: Mission LiFE translates this broader principle into **individual and community-level environmental action**, including saving water and energy, reducing waste, single-use plastics, and promoting sustainable food systems.

Concept of Jal Sanskriti & Harit Pathways

Jal Sanskriti:
- India's traditional and culturally rooted practices.
- Locally adapted systems such as johads, stepwells and tanks.
- Shaped by regional ecological and climatic conditions.



Transitioning from Commodity to Life-Force

Centralized Concrete Grid:
- **Water as Commodity :** Extracted, piped, and billed
- **Top-Down Infrastructure:** High maintenance capital works
- **Alienated Citizens:** Low local accountability and maintenance

Jal Sanskriti Model:
- **Water as Living Heritage :** Sacred commons managed collectively
- **Decentralized Networks:** Cascading tanks, Johads, and Stepwells
- **Community Ownership:** Hype-local stewardship and resilience



Pond construction under Water and Climate Resilience Program (WACREP) in 2014 by IWP (GWP-India) & Dhan Foundation

Kondamma (Errapalli village), Tamil Nadu

Decentralization & Community Governance (Jan Bhagidari): Paradigm Shift

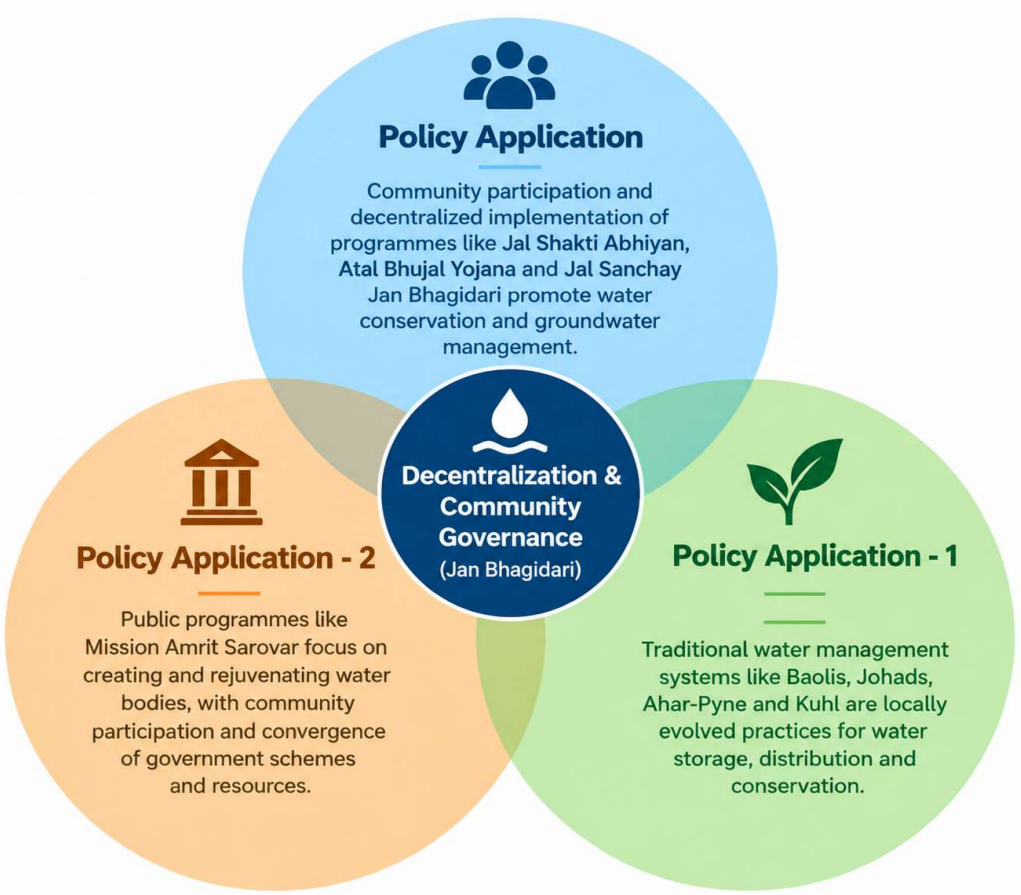
Decentralization & Community Governance (Jan Bhagidari): Paradigm Shift

Policy Application: Water governance is increasingly supported by community participation and decentralized implementation.

Revival of Traditional Ecological Knowledge (TEK)

Policy Application-1: Recognising and restoring traditional systems can complement contemporary approaches to local water management.

Policy Application-2: Focus on rejuvenation of existing water bodies and creation of new water bodies for water conservation and development of water-related assets.



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Key Question 1: How Can Policy Integrate Cultural & Ecological Values?

Policy Significance of Jal Sanskriti (Water Culture): Linking Cultural Practices with Water Governance

From Traditional Practice to Public Policy

Traditional water-management systems within contemporary governance, such as **Kuhls in Himachal Pradesh, Eri tanks in Tamil Nadu, Kere systems in Karnataka, and Baolis/Kunds in Rajasthan,** demonstrates locally adapted approaches to **water storage, distribution, irrigation and community management**.

Jal–Jangal–Zameen: Integrated Resource Management

Strengthens linkages between **water, forests, land and local communities** through participatory approaches. **Atal Bhujal Yojana** is a contemporary example of community-led groundwater management and convergence of government schemes in water-stressed areas.

Ecological Flows & River-Catchment Planning

Integrates **ecological requirements:** by maintaining appropriate river flows and considering catchment conditions. India has notified **minimum environmental-flow requirements for the Ganga**, monitored by the Central Water Commission.

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Policy Significance of Harit Pathways (Green Trajectories)

***Harit Pathways* policy mechanisms align;**

Economic growth with ecological equilibrium, circular economics, and low-carbon infrastructure.

Sector-Specific Green Transformation:

The Harit Sagar Green Port Guidelines, decarbonize maritime logistics by incorporating renewable energy, circular waste management, and shoreline ecosystem protection into port infrastructure. Agricultural policies like HARIT promote conservation practices (e.g., crop residue management to halt stubble burning).

Operationalizing "LiFE" (Lifestyle for Environment):

Harit frameworks anchor sustainability in reduced consumption (*Aparigraha*) and life-centered design over resource exploitation. Policy shifts- end-of-pipe pollution control to encouraging circular economies, zero-waste targets, and eco-friendly manufacturing.

Climate Resilience & Just Transition:

Incorporating green pathways ensures infrastructure resilient to climate risks (e.g., extreme weather, sea-level rise) while safeguarding local community livelihoods.


Efforts for Restoration of Bobhtati River and Plantation along the River banks by India Water Partnership (IWP) and Yuva Gram Vikas Mandal (Yuva) in 2023-24.
Bobhati River, Beed District, Maharashtra

Demand-Side Management vs. Supply Expansion:

Policies focus on supply expansion (pipelines, dams). ***Jal Sanskriti*** focuses on water literacy, behavioural change (**Namami Ganga Programme**), and demand management (e.g., micro-irrigation under PMKSY or the Bureau of Water Use Efficiency (to promote, regulate and control efficient water uses across the irrigation, domestic and industrial, power generation).

Comparative Policy Perspectives

Dimension	Jal Sanskriti (Water Culture)	Harit Pathways (Green Development)
Core Focus	Local water security, traditional water harvesting, and water conservation ethics.	Carbon mitigation, clean energy transitions, and eco-friendly infrastructure.
Policy Strategy	Community-led governance (Jan Bhagidari), decentralization, and behavioral change.	Regulatory guidelines, technological adoption, green finance, and circular design.
Key Frameworks	Jal Shakti Abhiyan, Mission Amrit Sarovar, Atal Bhujal Yojana.	Harit Sagar Guidelines, Panchamrit Goals, National Green Hydrogen Mission.

Q-2 What are the barriers to scaling community led models?

Scaling community-led models present a structural paradox: how to scale up decentralization without centralizing it.

While grassroots pilot projects succeed because they are deeply tailored to local contexts, attempts to replicate or scale them nationally across policies and programes like MGNREGA, Atal Bhujal Yojana, or Jal Shakti Abhiyan frequently hit institutional, financial, and structural bottlenecks.

Systemic bottlenecks in Community-Led-Models

Technocratic Engineering Bias
Preference for major dams and piped systems over traditional catchment structures.

Land Encroachment & Tenure
Urban expansion obliterates feeder channels, catchment zones and stepwell commons.

Financial Fragility
Gram Panchayat water user groups lack dedicated recurring funds for long-term maintenance.

Institutional Fragmentation
Conflicting jurisdictions among Irrigation, Revenue, Forestry, Water, and other allied departments.

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"Projectization" and Short Timeframes:

Community-led models take years to mature, while short public policy funding cycles often withdraw support before local institutions become self-sustaining.

Capacity, Technical & Scale Mismatches:

Standardized policy mandates undermine community-led models by imposing rigid blueprints that ignore diverse local ecological and hydro-geological realities, causing systemic failures.

Lack of Direct Financial Devolution:

While policies delegate responsibilities to local institutions, funding remains controlled by state or central agencies, limiting communities' financial autonomy to sustain long-term operation and maintenance (O&M).

Technical & Data Asymmetries:

Local communities often lack advanced technical data like hydro-geological mapping, while technical experts frequently overlook traditional ecological knowledge (TEK).

Q-3 How Youth & technology support HARIT Pathways?



Youth and technology are the Primary catalysts: to operationalize HARIT Pathways (green growth trajectories) and scale Jal Sanskriti (cultural water conservation) from hyper-local pilots into nationwide policy.



Young innovators act as bridge-builders: using digital tools (tracking water bodies, deforestation, or crop burning).



Drive socio-environmental stewardship: Youth-led crowdsourced platforms and mobile apps democratize data collection, awareness, funding for rejuvenation and conservation as well as create youth networks).



Youth as Ambassadors: To support Digital Citizen Science & Environmental Monitoring.



Aquifer & Water-Body Mapping: Use open-source GIS tools and smartphone sensors to geotag and map traditional stepwells (Baolis), Johads, and wetlands under Mission Amrit Sarovar and Catch the Rain campaigns.



Community Air & Soil Sensors: Youth networks deploy low-cost IoT sensors to monitor real-time soil moisture and air quality, feeding local data into state-level green budgeting decisions.



Scaling Green Agri tech & Circular Economy: Transitioning agriculture toward sustainable, tech-driven and economically viable practices through Harit Pathways.Youth-led agripreneurs connect farmers with Happy Seeders, bio-decomposers and precision tools via mobile platforms.



Waste-to-Value Supply Chains: Young entrepreneurs establish digital platforms linking urban organic waste and rural crop residues to biofuel and compressed biogas (CBG) plants under the GOBARdhan scheme.

Behavioural Nudges & Digital Mobilization: Platforms like MY Bharat leverage youth volunteer networks to organize digital awareness campaigns around local water heritage (Jal Sanskriti) and forest restoration.

Youth Led Eco Enterprise Facilitation support: To set up eco -friendly and sustainable business (Green Entrepreneurship): Organic products, Biodegradable Bags, waste recycling, renewable energy or Sustainable farming through Youth Co: Lab and Startup India.

Integrating youth and technology converts Jal Sanskriti from historical nostalgia into an active digital movement, while accelerating Harit Pathways through market-ready, tech-driven solutions. Governance transitions from state-directed enforcement to a dynamic, tech-enabled public partnership (Jan Bhagidari).

CONCLUSION & VISION

Bridging centuries of ecological wisdom with modern technology and youth leadership

Policy	Community	Youth & Tech
Protect Cultural & Eco Commons	Enable Decentralized O&M Funds	Scale Digital Restoration Tools

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THANK YOU!

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