

Executive Summary

Recommendations on the Draft Climate Finance Taxonomy (CFT)

Submitted by: NFSSM Alliance and ClimateRISE Alliance

25th June 2025

The National Faecal Sludge and Septage Management (NFSSM) Alliance and ClimateRISE Alliance wholeheartedly welcome the release of the Draft Framework for India's Climate Finance Taxonomy. We commend the Department of Economic Affairs, Ministry of Finance and technical partners for this pioneering step in formalising India's climate finance architecture. As cross-sectoral platforms working to advance inclusive, resilient, and climate-aligned sanitation and urban services, our submission seeks to strengthen the taxonomy's relevance and applicability to the urban water and sanitation sector, particularly in the context of India's Net Zero, SDG 6, and Viksit Bharat 2047 goals.

Our recommendations focus on sectoral inclusion, activity classification, institutional mechanisms, and implementation frameworks, particularly with reference to sanitation, wastewater, faecal sludge management, decentralised infrastructure, MSMEs, and digital public infrastructure. **Refer to the detailed recommendations in Annexure below.**

1. Recognise sanitation as a climate-relevant sector

Sanitation is currently underrepresented in the taxonomy, despite its significant role in climate mitigation (via biogas recovery, methane reduction) and adaptation (via flood-resilient infrastructure, disease prevention). We recommend that urban sanitation be formally recognised under mitigation, adaptation, and transition-supportive categories. Eligible activities should include decentralised wastewater treatment systems (DEWATS), faecal sludge treatment plants (FSTPs), climate-resilient containment, wastewater reuse, and biogas capture from waste.

2. Expand sectoral coverage to include sustainable urban development

Given the growing climate risks and emission intensity in urban areas, we recommend that “**Sustainable Urban Development**” be included as a priority sector in the taxonomy. Key enablers of urban development lie in finance & accounting, fiscal event standards, digital public infrastructure (DPI and incentivizing climate resilient urban infrastructure development.

This should cover water, sanitation, solid waste, and stormwater systems recognised for their adaptation value and embedded emissions. A dedicated sectoral annexure will enable climate-responsive investments in urban infrastructure, aligned with national missions such as SBM-U 2.0, AMRUT, and NAMASTE.

3. Acknowledge urban vulnerabilities and decentralised systems

Climate change in India manifests through intensifying heatwaves, erratic rainfall, groundwater stress, and urban flooding. Sanitation systems—especially in informal settlements are highly vulnerable to these shifts. We recommend specific classification of decentralised, modular, and climate-resilient systems under Tier 1 and Tier 2, with performance thresholds and outcome-linked metrics.

4. Embed equity, social safeguards, and Just Transition principles

The taxonomy must adopt a stronger equity lens. We recommend explicit recognition of climate impacts on women and gender minorities, sanitation workers, informal providers, and vulnerable groups as part of Just Transition frameworks. Social safeguards, participatory planning, and community ownership mechanisms must be embedded within the taxonomy’s classification and principles.

5. Enable MSME participation and innovation in sanitation

MSMEs play a critical role in delivering decentralised, low-carbon sanitation solutions but face financing challenges. We recommend a dedicated “MSME Sanitation Innovation Track” and a credit guarantee facility under Tier 1 and Tier 2 to derisk lending, incentivise innovation, and unlock scale. Aggregation platforms, simplified eligibility criteria, and performance-linked incentives can further support the sector.

6. Strengthen monitoring, metrics, and implementation mechanisms

The taxonomy must integrate sanitation-specific indicators into its MEL framework, such as volume of treated wastewater reused, GHG emissions avoided through waste-to-energy systems, and percentage of infrastructure retrofitted for resilience. We also recommend operationalising the “Do No Significant Harm” principle with safeguards tailored to sanitation and environmental risks and leveraging Digital Public Infrastructure (DPI) for real-time tracking, accountability, and transparency.

In conclusion, sanitation systems are a critical pillar of climate resilience and public health. Recognising them within India’s Climate Finance Taxonomy will enable targeted investments, ensure alignment with national missions, and accelerate India’s transition to a just, low-carbon, and resilient future. We urge the inclusion of these recommendations in the final framework and remain available for technical consultations and sectoral collaboration.

Annexure: Inputs to the Draft Framework of India’s Climate Finance Taxonomy

Submitted by National Faecal Sludge and Septage Management (NFSSM) Alliance and ClimateRISE Alliance

Format in which the information/comments may be provided:

Name of organisation/person:	National Faecal Sludge and Septage Management (NFSSM) Alliance and ClimateRISE Alliance		
Contact details:	steeringcommitteenfssm@dasra.org ; secretariat.nfssmalliance@dasra.org ; kaveri@dasra.org		
<p>Category/Description of person giving comments: The NFSSM Alliance is a national working group that comprises 30+ organisations and 120+ experts across India driving discourse on urban sanitation, and support national, state, and city governments towards climate resilient inclusive sanitation outcomes.</p> <p>The ClimateRISE Alliance is a collaborative platform of 70+ partner organisations that aims to accelerate India's journey towards climate resilience, by mainstreaming narratives for intersectional climate action for the most vulnerable and underserved communities through strategic partnerships and collaborative action.</p>			
S. No.	Para/Sub Para No.	Comments	Rationale
Chapter 1: Introduction and Setting the Context			
1.	Para: 1, 1.2 and 3.7 Page: 5, 6 and 19	Recommend explicitly integrating ‘ sanitation systems ’ into the framing of climate adaptation and resilience across the document’s introductory chapters, noting that inadequate sanitation infrastructure (e.g., lack of sewage treatment) worsens climate-related risks, such as waterborne diseases during floods.	Sanitation systems are essential for managing climate impacts such as flooding, water contamination, and disease outbreaks. They play a central role in building urban resilience, yet are often overlooked in adaptation finance, limiting the scope of climate action. Urban sanitation including FSM, STPs, and reuse systems contributes significantly to mitigation by reducing methane and nitrous oxide emissions and promoting circular economy

			transitions. Integrating sanitation aligns with India’s NDCs, IPCC categories, and public health priorities, and strengthens the completeness of climate-relevant sectors.
2.	Para 1.1, 1.2, 1.3 and 1.4 Page: 6 and 7	Recommend reordering the para sequence to: (1.1 NDC), (1.3 Viksit Bharat), (1.2 Development Goals), and (1.4 Sectoral prioritisation).	Reordering the narrative from Net Zero (2070) to <i>Viksit Bharat</i> (2047) reflects the continuum of India’s national targets linking long-term climate goals with near-term development priorities.
3.	Para 1.4, 4.1(g) Page: 7 & 21	Recommend integrating sanitation-related GHG emissions (methane, N ₂ O from untreated waste) into national climate finance tracking systems.	The IPCC recognises emissions from human waste as part of national GHG inventories, yet India’s taxonomy does not account for sanitation’s emissions footprint. Including sanitation in mitigation frameworks would align with science-based targets, enable climate finance for decarbonising wastewater and faecal sludge treatment, and validate carbon reduction contributions from decentralised and nature-based solutions.
4.	Para 1.6, 1.7 Page: 8	Suggest including the following to strengthen the climate equity and justice narratives (Historical responsibility and per-capita emissions): (a) Suggest adding comparisons with peer developing countries to better reflect India’s position among emerging economies and strengthen the argument for differentiated responsibilities. (b) A graph comparing per capita GHG emissions, along with geographical area and population	a) Including these would highlight India’s leadership in emissions restraint and reinforce the equity framing under Common But Differentiated Responsibilities (CBDR) principles. Referencing peer economies like Brazil or Indonesia (at similar development stage) helps contextualise India’s approach within the Global South, and relevant highlight benchmarks. b) Given the inverse relationship between per capita emissions and population, this also strengthens India’s position in

		(c) A graph projecting “peak emission” trajectory for India, if we are not obligated to climate change, and how current actions are reducing the peak.	countering the disproportionate emissions of developed countries. c) Projecting India’s peak emissions can further demonstrate how it is advancing mitigation ahead of many high-income nations.
5.	Para 1.9, 1.10 Page: 9	Suggest including sanitation and FSM systems alongside agriculture and water when identifying vulnerable sectors and planning regional finance allocations. Also integrate institutional mechanisms suited to geographical context such as (Himalayan, coastal, etc.). Recommend integration of vulnerability identification with sectoral investment planning , including sanitation infrastructure.	Sanitation systems are highly sensitive to geography (e.g., high water tables, floodplains). Ignoring sanitation under “vulnerable sectors” or geographic assessments risks service failures. Customising policy and institutional frameworks enable contextual climate investments and outcomes. Identifying vulnerable sectors and geographies is not sufficient unless tied to corresponding financial flows. Including sanitation infrastructure ensures comprehensive urban adaptation and protects the poor from cascading climate impacts.
6.	Para 1.18 Page: 12	Recommend elaborating and the data on Nuclear Energy Mission beyond Solar Modular Reactors (SMRs).	Ensures a balanced representation of nuclear energy sector to include India’s current and future capacity, technologies, policies, and other schemes.
7.	Para: 1.27 Page: 14	Suggest including a comparative overview of carbon taxation across fossil and non-fossil energy.	The comparison by percentage can help to identify the advantage and gap between fossil and non-fossil fuel. This helps frame the market distortions and policy gaps that limit low-carbon investments.

8.	Para: 1.28 Page: 15	Strengthen the progress of India’s 2030 NDC Commitments by showcasing India’s progress and how India compares to both developed and developing countries.	In, ‘be science-based and transparent’, have mentioned defined and disclosed metrics, however it doesn’t show India’s regulatory stance and commitment to transparency. Mention current schemes/frameworks discouraging greenwashing and actions on not following the commitments. Positioning India’s regulatory progress in this space enhances confidence in taxonomy-linked investments and reinforces international trust.
9.	Para: 1 & 6 Page: 5 & 26	<p>Recommend that the taxonomy explicitly recognises heat stress, water insecurity, urban flooding, and hydrological extremes as central climate risks in India’s urban context. Also incorporate “Urban Water and Waste Systems” as a priority sector within the Climate Finance Taxonomy.</p> <p>This should include the following core components:</p> <ul style="list-style-type: none"> • Urban Water Supply (including resilience to drought and distribution equity) • Wastewater Management (with energy efficiency and decentralised treatment emphasis) • Stormwater Management (for climate-resilient drainage and flood control) • Solid Waste Management (as a critical methane mitigation sector) <p>These urban systems should be formally classified under both mitigation and adaptation categories across Tier 1 and Tier 2.</p>	<ul style="list-style-type: none"> • In India, climate change increasingly manifests through intensification of the hydrological cycle more frequent and intense heatwaves, high-intensity short-duration rainfall, groundwater depletion, and in-situ urban flooding. • Urban utilities such as centralised STPs are energy-intensive, often failing due to operational energy costs. Promoting decentralised STPs and FSTPs can reduce emissions, enhance treatment performance, and facilitate large-scale reuse (e.g., Bangalore’s treated water reuse in agriculture). • Climate challenges in India differ fundamentally from those in the Global North; thus, India’s taxonomy must reflect context-specific priorities such as water cycle disruption, urban flooding, heat stress, and drinking water insecurity. • Recognising these systems under sectoral priorities will unlock climate-aligned public and private

			<p>financing, especially for decentralised, inclusive, and energy-efficient urban infrastructure.</p>
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Chapter 2: Objectives of the Climate Finance Taxonomy

10.	<p>Para 2 Page: 16</p>	<ol style="list-style-type: none"> 1. Expand the adaptation and mitigation objectives to explicitly include sanitation systems. Under adaptation, refer to climate-resilient sanitation infrastructure (e.g., flood-proofed toilets, decentralised wastewater systems). Under mitigation, include low-carbon sanitation technologies such as anaerobic digesters, biogas recovery systems, and energy-efficient wastewater treatment. 2. The objectives of taxonomy could be broadened to aim specifically at promoting efforts for biodiversity conservation, resource systems, and community-led initiatives. 	<ol style="list-style-type: none"> 1. Sanitation is integral to both climate adaptation (by reducing water contamination, disease risk, and service disruption during floods and droughts) and mitigation (by abating methane/N₂O emissions and enabling renewable energy from waste). Explicit inclusion of sanitation aligns the taxonomy with real-world climate vulnerabilities and solutions. 2. Biodiversity loss has been recognised as a major threat from climate change, consequently resulting in the loss of livelihood opportunities for communities dependent upon farming, forestry, and livestock. In this context, the document also acknowledges the challenges faced by small and marginal farmers who practise a combination of livelihood activities dependent upon the interconnectedness of different resource systems. Fund mobilisation for community efforts to protect their resources would facilitate decentralised and informed actions by local
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			populations. This approach also represents a core element of sustainable green living.
11.	Para: 2.1 Page: 16	Strengthen the section on greenwashing citing some examples to make the reading easy to understand and relate to practical challenges. Include illustrative examples of greenwashing in infrastructure finance to enhance clarity.	Greenwashing concept should be mentioned in detail as there are different ways that corporates are generally resorting to this phenomenon. Adding examples and clear classification criteria enhances investor trust and regulatory alignment.
12.	Para: 2.1 Page: 16	Ensure consistent use of the term “framework” (not “tool”) throughout the taxonomy document. Also, include a short preamble in the beginning explaining the purpose and usage of the taxonomy, to prioritise investments, address sectoral and geographical gaps, and link climate action with socio-economic outcomes.	Clarity on the taxonomy’s purpose and structure will help stakeholders (public and private) interpret it correctly. As a framework, it must serve as both a classification system and a strategic guide to bridge climate-finance and development imperatives. More than just to direct investment flows, this taxonomy can help in understanding the priority financial investment sector gaps, in relation to people affected (rural and urban) of India and its particular social and climate ecology.
13.	Addition of Para: 2.2 Page: 16	Suggest addition of a sub-para on, Just Transition and Social Equity as Objectives: This can be done by prioritizing climate actions that empower highly vulnerable groups as smallholder farmers, women and gender minorities; affected indigenous communities such as provide climate-resilient tools (e.g., drought-tolerant seeds, micro-irrigation) and access to carbon credit markets or cooperative models to enhance livelihoods. For Micro and Small Enterprises (MSMEs), address pollution from outdated technologies by providing low-interest green loans, energy efficiency audits, technical training on cleaner production, and	It ensures an inclusive shift to a low-carbon economy by prioritizing vulnerable communities like small farmers, MSMEs, and coal-dependent workers South Africa’s Green Finance Taxonomy integrates social safeguards, ensuring equitable outcomes, which India can emulate to protect vulnerable groups. Equity and justice are absent in the current formulation. International frameworks (e.g., South Africa’s taxonomy) explicitly integrate social safeguards. India’s taxonomy should follow suit by ensuring that climate finance flows reach marginalised populations and enable inclusive, localised

		compliance support to meet environmental standards, ensuring reduced emissions and sustained economic viability.	transitions especially in essential service sectors like sanitation.
14.	Para: 2.1 Page: 16	Emphasise the need for the taxonomy to guide investment prioritisation not only by sector but also by region and vulnerability , particularly underserved rural and peri-urban areas.	Climate vulnerability in India is spatially uneven, and sanitation gaps are especially stark in peri-urban and informal settlements. The taxonomy must be able to direct finance to geographies where infrastructure gaps, climate risks, and social exclusion intersect.
15.	Para: 2 Page: 16	Suggest including the following: <ul style="list-style-type: none"> 1) Expand the adaptation objective to explicitly include sanitation activities, such as climate-resilient sanitation infrastructure (e.g., flood-resistant toilets, decentralised wastewater systems). 2) Add a sub-objective under mitigation for promoting low-carbon sanitation technologies (e.g., anaerobic digesters for biogas from sewage sludge). 3) Include sanitation as a means to prevent greenwashing by ensuring investments in sanitation projects meet climate resilience criteria (e.g., reducing groundwater contamination). 	Sanitation contributes to adaptation by enhancing resilience against climate-induced water and health risks. It also supports mitigation through energy-efficient wastewater treatment and biogas production from waste
Chapter 3: Designing India’s Climate Finance Taxonomy			
16.	Para: 3 Page: 17	Suggest integrating sanitation systems into the hybrid qualitative–quantitative classification structure: <ul style="list-style-type: none"> 1. Qualitative Criteria: Define sanitation activities as climate-relevant if they reduce vulnerability to climate hazards or lower GHG emissions (e.g., energy-efficient treatment plants). 	Sanitation contributes significantly to both adaptation and mitigation. Inclusion within both qualitative and quantitative tracks strengthens technical classification and ensures financing reaches climate-sensitive infrastructure, especially for rural and urban poor and marginalised communities.

		<p>2. Quantitative Metrics: Introduce performance thresholds, such as percentage reduction in untreated wastewater discharge or energy consumption in sanitation facilities (e.g., best-in-class wastewater plants achieving 20% energy efficiency gains).</p> <p>3. Inclusivity: Ensure simplified criteria for small-scale sanitation projects (e.g., community-managed fecal sludge treatment) to support MSMEs and local governments, aligning with the taxonomy’s proportionality principle ensuring gender-responsive strategies</p>	Simplified criteria ensure participation of MSMEs and community-managed projects.
17.	Para: 3 Page: 17	Establish a central agency that coordinates and manages issues of green finance.	Currently, management of green finance is fragmented and involves multiple institutions and frameworks that have overlapping priorities and regulatory gaps. To ensure its effectiveness, a central agency that coordinates between state and national level agencies needs to be set up, with sub-nodal agencies at a state level. Such a body can include environmental law experts, cost accountants, policy and sustainability teams, impact finance teams and members of civil society organisations. These bodies will be responsible for managing the green priorities across the country and releasing outcome statements to investors and other concerned stakeholders.
18.	Para: 3 Page: 17	Establish a Green Asset Finance Corporation or Green Guarantor to mobilise capital.	Establishing a Green Asset Finance Corporation or Green Guarantor serves as an intermediary that can facilitate investor confidence and mobilise private sector funds. Such institutions have been set up in the UK and China. This institution will be responsible for attracting investment into sectors that face financing barriers by providing tax incentives, concessional

			finance or credit enhancement measures such as guarantees or insurance.
19.	Para: 3.5 Page 18	FSM and sanitation systems should be prioritized for inclusion in Phase 2 of taxonomy evolution, particularly under adaptation and urban resilience.	<p>Urban poor communities and gender minorities are highly vulnerable to sanitation-related health risks during climate shocks (flooding, waterlogging, droughts). Adaptive sanitation infrastructure (e.g., elevated toilets, flood & cyclone-resilient FSM systems) is critical to enhance climate resilience and reduce public health burdens. Taxonomy should integrate resilient sanitation in line with SDG 6, SDG 11 and SDG 13.</p> <p>Climate change is impacting groundwater by causing salinity intrusion in coastal areas and accelerating groundwater depletion in water-stressed regions. These changes are affecting both the quality and availability of groundwater. Therefore, the taxonomy should also incorporate and promote resilient, smart & sustainable WASH solutions aligned with SDG 6, SDG 11 and SDG 13.</p>
20.	Para: 3.5 Page 18	Recommend introducing ‘congestion pricing’ in urban areas, under the hybrid approach.	Traffic congestion represents one of the most pressing urban challenges of our time, imposing substantial costs across economic, environmental, health, and social dimensions. As cities in India grapple with increasingly gridlocked transport networks, congestion pricing emerges as a proven policy tool that addresses these multifaceted challenges while generating revenue for critical infrastructure improvements.

21.	<p>Para: 3.6 and 4.1 (h) Page: 18 and 22</p>	<p>Support for MSMEs in climate responsive sanitation through green finance:</p> <p>Micro, Small, and Medium Enterprises (MSMEs) play a critical role in delivering decentralised, low-carbon, and adaptive sanitation solutions, particularly in underserved and climate vulnerable areas. Many innovations in the sanitation sector including low-cost treatment technologies and decentralised systems are driven by MSMEs, which often operate with limited access to finance and institutional support.</p> <p>To enable these enterprises to scale climate-positive solutions, the climate finance taxonomy should: Include MSMEs delivering sanitation and water innovations as priority recipients of green or climate finance.</p> <ol style="list-style-type: none"> 1. Make specific provisions for MSME service providers in sanitation, such as desludging entrepreneurs, local technology innovators, and small-scale sewage treatment plant (STP) operators 2. Promote simplified eligibility norms, capacity-building initiatives, and blended finance instruments to enhance MSMEs’ access to climate finance 3. Reflect the capacity constraints and innovation potential of MSMEs, and promote scalable, job generating, decentralised models that support climate resilience and inclusive sanitation 	<p>Many sanitation innovations (especially decentralised systems and low-cost treatment technologies) are delivered by MSMEs. These enterprises require targeted support to scale climate-positive solutions. Climate taxonomy must reflect the capacity constraints and innovation potential within this ecosystem, and promote scalable, job-generating, decentralised models for climate resilience and inclusive sanitation.</p>
Chapter 4: Principles of the Climate Finance Taxonomy			
22.	<p>Para: 4 Page: 20</p>	<ol style="list-style-type: none"> 1) Recommend explicit inclusion of community engagement and stakeholder participation as a foundational principle in the taxonomy, especially for sanitation. 	<p>Ensures that climate-resilient sanitation solutions are locally relevant, inclusive, and equitable benefitting those most vulnerable to climate risks. These inclusions are crucial for</p>

		<ol style="list-style-type: none"> 2) Suggest enabling participatory planning, stakeholder mapping, and regular consultation with local communities, government agencies, civil society, and private sector actors. 3) Recommend that principles explicitly address equity and inclusion, ensuring that investments in urban sanitation prioritise vulnerable and marginalised groups. 4) Consistency with Climate Action: Highlight sanitation’s role in supporting India’s NDCs by reducing health risks and protecting water resources, critical for adaptation. 5) Do No Significant Harm (DNSH): Ensure sanitation projects (e.g., sewage treatment) do not harm ecosystems (e.g., by avoiding river pollution) or increase emissions unnecessarily. 6) Country Context: Emphasize sanitation’s importance in India’s context, where 85% of rural households and urban slums face climate-related sanitation challenges. 7) Science-Based Transparency: Use metrics like reduction in biological oxygen demand (BOD) or coliform levels in treated wastewater to classify sanitation activities. 	<p>effective planning and implementation.</p> <p>Sanitation aligns with several principles, including DNSH, country context, and science-based transparency, as it supports public health and environmental protection without harming other climate objectives.</p>
23.	Para: 4 Page: 20	<ol style="list-style-type: none"> 1. The eight principles which form the basis of wireframe should include a cross-cutting theme of environment sustainability. 2. Add Promote circular economy and resource efficiency" as a principle. 	<ol style="list-style-type: none"> 1. Though the eight principles safeguard the people and profit aspects, the conservation of environment and its resources should also ideally be included. 2. Water and waste management are integral to circular economy goals
24.	Para: 4.1 Page: 20	Operationalize the “ Do No Significant Harm ” (DNSH) Principle: Develop a DNSH methodology with sector-specific safeguards. Renewable energy and agricultural projects must explicitly avoid biodiversity loss, soil organic carbon (SOC) degradation, and carbon	The Do No Significant Harm (DNSH) principle is not very specific and does not have operational details, risking greenwashing. The EU Taxonomy’s DNSH criteria could

		<p>stock depletion through tailored safeguards integrated into Environmental Impact Assessment (EIA) frameworks.</p> <p>For renewable energy, projects like solar parks must prohibit sitting on high-carbon ONEs (e.g., grasslands with >x tC/ha) and prioritise degraded agri lands, using techniques like agri voltaics to preserve SOC and grazing co-benefits, while limiting water use to <x% of local availability. Agricultural projects must ban ONE conversion (e.g., wetland drainage), adopt SOC-enhancing practices (e.g., no-till farming, targeting x% annual SOC increase), and protect water resources through precision irrigation (<x% of local resources) and buffer zones (e.g., x m around wetlands), ensuring compliance via EIA-based checklists embedded in sectoral annexures for taxonomy eligibility.</p>	<p>provide a starting point to follow and can be adapted to India's context.</p>
25.	<p>Para: 4.1 Page: 20</p>	<p>Add skilling, social safeguards and safe mechanization as minimum criteria. Recommend Just Transition screening for projects to protect livelihoods and ensure inclusion of informal workers, tribal communities, and sanitation workers.</p>	<p>There is a high level of intersection between labour informality, multidimensional poverty, energy and food insecurity, regional inequalities, and climate vulnerability in India, particularly for informal workers, smallholder farmers, indigenous communities, and other natural resource-dependent populations. The omission of social safeguards is particularly significant in the context of India's commitments to a just transition, which requires not only technological or sectoral shifts but also equitable socio-economic transformation. A Just Transition screening of projects will protect the rights and livelihoods of workers, recognizing skilling, social security and safe mechanization, particularly in sectors undergoing decarbonization and safeguard communities, especially historically marginalised or climate-vulnerable ones from displacement, livelihood loss, or adverse</p>

			<p>impacts. This could be on the lines of the ASEAN Climate Finance Taxonomy which includes more robust environmental objectives and “social aspects” with principles of “Do No Significant Harm” (DNSH) and “Remedial Measures to Transition” (RMT) eligibility criteria. In the ASEAN framework, the social aspects included are: Respect for Human Rights, Prevention of Forced and Child Labour, and Impact on People Living Close to Investments.</p>
26.	<p>Para: 4.1 Page: 20</p>	<p>Establish a Monitoring and Evaluation (M&E) framework for taxonomy-aligned projects. Recommend use of outcome-based indicators, tracking tools and SDG-aligned repositories.</p>	<p>While the current scope of the taxonomy does not include a framework for monitoring and evaluation, it must be developed to ensure that projects deliver ongoing impact and provide climate benefits and prevent greenwashing. Indicators must be identified that consider outcomes, impacts, and cost-effectiveness of projects. Furthermore, a green repository can be set up to track the projects against the taxonomy and ensure that they align with the SDGs. Emerging digital technologies such as blockchain registries can also track green funds and show real-time utilisation, improving traceability and transparency in the process. Setting up a monitoring and evaluation mechanism ensures the defensibility of the taxonomy and enables decisions to be made on transparent and measurable criteria.</p>
27.	<p>Para: 4.1 and 5.2 Page: 20 and 24</p>	<p>Include local self-governance, particularly in natural resource management as a principle. Empower PRIs, PESA institutions, and ULBs to co-lead adaptation and resource planning—especially in water, sanitation, and forestry sectors.</p>	<p>Effective climate resilience is not merely technological but is also political and ecological. Climate supportive activities and transition supportive activities must emphasise the socio-political drivers of vulnerability including, landlessness, caste and gender-based exclusion, tenure insecurity, and inequitable access to public services, exacerbated by extractive activities.</p>

		<p>The first principle should include the phrase "strengthening local governance institutions and systems" in addition to the development priorities.</p>	<p>By omitting any explicit role for local self-governance institutions or community-led planning mechanisms, the taxonomy fails to leverage the locally transformative role of Panchayati Raj Institutions (PRIs) and Scheduled Area governance under the Panchayats (Extension to Scheduled Areas) Act, 1996 (PESA), Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA). Towards this it must strengthen community-led governance and participatory approaches towards building resilience. This would mean embedding community-led and locally governed adaptation planning and management, particularly in sectors such as agriculture, water, forestry, and fisheries, where extractive pressures intersect with high vulnerability and where local institutions have a legal mandate.</p> <p>India has a robust system of local governance. As a principle, taxonomy should align with this commitment, as this will support climate action as a shared responsibility and coordinated effort between government and community institutions.</p>
28.	<p>Para: 4.1a Page: 20</p>	<p>Align principles with Viksit Bharat @2047 beyond energy, highlighting economic competitiveness, legal foundations, global partnerships, and inclusive service access.</p>	<p>The four pillars of Viksit Bharat - Economic competitiveness, strong national security, secure global partnerships, and robust legal foundations are crucial for achieving development targets, so this should be the entire focus instead of only energy component.</p>

29.	Para: 4.1 Page: 20	<p>Recognise sanitation infrastructure as a mitigation sector. Eligible activities: biogas recovery, low-energy STPs, wastewater reuse, decentralised FSM, and carbon credit generation. Use science-based indicators (e.g., GHG reduction, BOD, coliform levels).</p> <p>Include the GHG mitigation through biogas recovery, wastewater reuse, and low-energy treatment as eligible activities in the examples.</p>	<p>Acknowledges the mitigation potential of well-managed sanitation systems. Supports classification, credit mobilisation, and climate finance eligibility.</p> <p>GHG Mitigation in the sanitation sector is increasingly streamlined in the Indian Sector. For example, Delhi’s Okhla STP generates 4 MW electricity/day from biogas, cutting 52,000 tonnes CO₂/year.</p>
30.	Para: 4.1e Page: 21	Need to detail out and define transitioning activities for each sector which would be required to be undertaken to attain India’s NDC	As this is a taxonomy framework, it would be good to list and define these transitioning activities, so that stakeholders can take up appropriate initiatives.
31.	Para: 4.1f Page: 21	Recommend broadening the scope of the principle of promoting indigenous technology should include indigenous knowledge systems .	India is renowned for its traditions and communities, such as tribal populations, who still practise harmony with nature as a core value. The Honourable President, Mrs Murmu, has mentioned in her speech that we should adopt these practices to address the challenges of climate change. Taxonomy should recognise and be instrumental in mobilising support for indigenous systems and values.
32.	Para: 4.1 (g) Page: 21	<p>Climate co-benefits and emission reduction from sanitation infrastructure:</p> <p>Sanitation infrastructure plays a vital role in climate change mitigation and should be explicitly recognised within relevant taxonomies. The taxonomy should:</p> <ol style="list-style-type: none"> 1. Acknowledge greenhouse gas (GHG) emissions reduction from sanitation systems as a valid mitigation outcome 	<p>Scientific metrics are available to quantify sanitation’s mitigation/adaptation contributions.</p> <p>Referencing internationally recognised methodologies will enable credibility, interoperability, and unlock climate financing (green bonds, climate funds) for sanitation projects. This also helps avoid greenwashing by providing evidence backed classification of sanitation activities. The integration of these measures can yield measurable climate benefits</p>

		<ol style="list-style-type: none"> 2. Include GHG mitigation activities such as biogas recovery, wastewater reuse, and adoption of low energy treatment technologies as eligible examples 3. Permit sanitation utilities to generate carbon credits where applicable 4. Encourage the deployment of low energy and decentralised treatment technologies, including Faecal Sludge and Septage Management (FSSM), which reduce emissions associated with long-distance sewage conveyance 5. Support modern treatment plants equipped with biogas capture and waste-to-energy systems that can offset fossil fuel consumption 6. Recognise that well-managed sanitation systems significantly reduce methane and nitrous oxide emissions resulting from untreated sewage and open defecation 	
331	Para: 4.1(h) Page: 22	Include sanitation MSMEs as eligible recipients of climate finance. Recommend simplified norms, tailored credit mechanisms, and support for technology innovators, desludging entrepreneurs, and small-scale operators.	Sanitation sector is largely MSME-driven. Financing frameworks must offer simplified eligibility and monitoring protocols to ensure participation and resilience of these local actors critical for delivering decentralized and low-emission sanitation services.
34.	Para: 4.2 Page: 22	<p>Establish an “MSME Sanitation Innovation Track” under Tier 2 with streamlined criteria.</p> <ol style="list-style-type: none"> (a) Annual self-certified performance reporting. (b) Concessional finance (interest subsidies) for modular, climate resilient sanitation technologies. (c) Pilot to scale grants for R&D that cut energy intensity by $\geq 50\%$. 	Small and medium enterprises drive decentralised, low-carbon solutions but face finance barriers; a tailored track reduces transaction costs and accelerates deployment.

35.	Para: 4.2 Page: 22	<p>Introduce an “MSME Credit Guarantee Facility” under Tier 1 for small service providers deploying climate resilient sanitation technologies.</p> <p>(a) Financial institutions (including NBFCs and SFBs) to guarantee $\geq 70\%$ of loan value.</p> <p>(b) Simplified application and eligibility criteria requiring only performance certification</p>	Mitigates perceived credit risk for MSMEs, enabling faster scaleup of decentralised, climate resilient technologies.
36.	Para: 4.2 Page: 22	<p>Support “Digital platforms for MSME clustering” under Tier 2.</p> <p>(a) Platforms must aggregate transaction volumes $\geq \text{₹}5$ crore/year and report GHG and performance KPIs.</p> <p>(b) Enable pooled procurement of equipment and shared technical training.</p>	Clustering MSMEs via digital hubs reduces unit costs, standardises quality, and enhances data transparency - key for monitoring co-benefits and unlocking blended finance.
37.	Para: 4.2 Page: 22	<p>Provide Concrete Examples for Transition Activities: Add a table in the framework listing examples under Transition Supportive, linked to sectoral annexures.</p> <ol style="list-style-type: none"> 1. No lifecycle GHG accounting or end-of-life (e.g., solar panel recycling) mentioned. 2. Integrate circular economy standards and lifecycle GHG benchmarks. 3. Standards for sustainable sourcing of minerals and materials need to be put in place to ensure least environmental harm. 4. Add a "Do No Significant Harm" criterion referencing critical biodiversity areas and encourage project siting based on ecological impacts. 	Clarifying transition activities reduces ambiguity for investors. The ASEAN Taxonomy’s Amber Tier provides specific examples, enhancing stakeholder clarity. Climate taxonomy needs to ensure that interventions suggested are climate, ecosystem and biodiversity friendly to the greatest possible extent. Over-extraction of minerals can lead to loss for longer periods of time, and for future generations.
38.	Para: 4.2, Figure: 5 Page: 23	Figure 5 Include ‘water supply and sanitation’ in the climate adaption ‘sectors’ box	Along with agriculture, food and water security sanitation sector also plays a pivotal role in climate adaptation

Chapter 5: Approach to the classification of activities, projects and measures contributing towards India’s climate commitments

39.	Section 5:	<p>Include sanitation activities under the following:</p> <ol style="list-style-type: none"> 1. Climate-Supportive Tier 1: <ol style="list-style-type: none"> a. Activities: Construction of climate-resilient sanitation infrastructure (e.g., flood-proof toilets, decentralized wastewater treatment plants). b. Qualifying Criteria: Absolute avoidance of water contamination (e.g., 100% treatment of sewage in urban areas) or significant reduction in health risks from climate hazards. 2. Climate-Supportive Tier 2: <ol style="list-style-type: none"> a. Activities: Upgrading existing sanitation systems to improve resilience (e.g., retrofitting sewage plants for flood resistance) or energy efficiency. b. Qualifying Criteria: Moderate reduction in emission intensity (e.g., 15% lower energy use in treatment plants) or enhanced resilience with technological constraints. 3. Propose inclusion of decentralised and nature-based solutions: This can apply to multiple sectors, and for sanitation. 4. Recommend that the classification methodology explicitly consider decentralised wastewater treatment, faecal sludge management, and nature-based solutions as climate-supportive activities and prioritise cluster-based solutions. 	<ol style="list-style-type: none"> 1. Sanitation activities can be classified as climate-supportive (for adaptation and resilience) or transition-supportive (for low-carbon technologies in wastewater management). 2. These approaches enhance urban resilience, support circular economy principles, and align with India’s Net Zero and Viksit Bharat goals
40.	Para: 5 & 1 Page: 24 & 6	Recommend adding a dedicated section on ‘Adaptation Finance’, also as an introduction section.	As per the Cities Climate Finance Leadership Alliance’s 2021 State of Cities Climate Finance (SCCF) report highlight that only 9% of global urban climate investments flow to climate change adaptation projects. Another study by the Global

		<p>This may elaborate on various blended finance models, such as parametric insurance, catastrophic bonds, green municipal bonds, and PPP-based investments.</p> <p>It can also showcase India’s progress in this area, including the launch of the Green Bonds Framework and successful issuances of Municipal Green Bonds (e.g., Ghaziabad, Pimpri Chinchwad, etc.).</p>	<p>Commission on Adaptation reports 5that investing USD 1.8 trillion globally in five areas from 2020 to 2030 including strengthening early warning systems, making new infrastructure resilient, and making water resources management more resilient, could generate USD 7.1 trillion in total net benefits.</p>
41.	Para: 5.2 and 7.3 Page: 24 and 31	<p>Establish performance indicators for climate-responsive sanitation projects:</p> <p>To ensure alignment with climate-related taxonomy thresholds and to assess the effectiveness of sanitation investments in delivering intended climate outcomes—both adaptation and mitigation—it is essential to define clear performance indicators and adopt robust Monitoring, Evaluation, and Learning (MEL) frameworks.</p>	<p>Key performance indicators (KPIs) may include:</p> <ol style="list-style-type: none"> 1. Percentage of wastewater safely treated and reused 2. Volume of treated wastewater reused (m³/year) 3. Greenhouse gas (GHG) emissions avoided through biogas recovery or sludge-to-energy systems (tCO₂e/year) 4. Percentage of sanitation infrastructure retrofitted or designed for climate resilience (e.g., raised toilets in flood-prone areas) 5. Number of service disruptions attributed to climate-related events such as floods or droughts. <p>These indicators support data-driven decision-making and help track progress toward climate-smart sanitation goals.</p>
42.	Para: 5.2 & 5.3 Page: 24 & 25	<p>Inclusion of project typologies and metrics to assess climate alignment in sanitation-related finance.</p> <p>Recommend inclusion of sanitation technologies such as decentralised wastewater treatment systems (DEWATS), faecal sludge treatment plants (FSTPs), co-treatment facilities, and reuse infrastructure (treated water for agriculture, landscaping or industry) as eligible under Tier 1 or Tier 2.</p>	<p>Incorporate sanitation-specific metrics aligned with:</p> <ul style="list-style-type: none"> • GHG reduction: e.g., tonnes CO₂ avoided from biogas recovery. • Water reuse/recycling: % treated wastewater reused. • Resilience indicators: Number of communities with climate-resilient toilets, % coverage in flood-prone areas.

		<p>Include “Climate resilient sanitation infrastructure” under Tier 1 (Climate Supportive).</p> <p>(a) Require infrastructure to withstand 1in100-year flood events without service loss.</p> <p>(b) Mandate $\geq 80\%$ uptime under extreme event stress tests (e.g., flood inundation simulation) to ensure resilience of proposed structures beforehand</p> <p>Include FSM, wastewater reuse, and co-treatment plants as Tier 1 and Tier 2 mitigation activities, especially if these involve GHG emission avoidance, methane capture, or energy recovery.</p>	<p>These systems are proven to reduce methane emissions, lower energy consumption, support localised water reuse and nutrient recovery, and build climate resilience in flood-prone and water-stressed areas. Inclusion of these systems aligns with circular economy principles and supports mitigation and adaptation simultaneously. Also addresses vulnerabilities faced by marginalised communities in informal settlements.</p>
43.	<p>Para: 5.2</p> <p>Page:24</p>	<p>Natural resource optimization and circularity should ideally feature as one of the key objectives</p>	<p>With depleting natural resources (clean water) and increasing incidences of climate change, it is becoming more and more crucial to judiciously consume all the available fresh water and also reuse to the maximum extent possible, used water. This should ideally form one of the key objectives for climate supportive activities</p>
44.	<p>Para: 5.2</p> <p>Page: 24</p>	<p>Add “Resource recovery sanitation facilities” as a co-benefit activity under Tier 1.</p> <p>(a) Facilities must deliver $\geq 50\%$ reuse of treated effluent for non-potable applications and recover $\geq 20\text{ kg N} + 5\text{ kg P}$ per ML treated.</p> <p>(b) Recognize decentralised wetlands and membrane systems with $\geq 30\%$ energy savings (Tier 2).</p>	<p>Treated wastewater is a reliable urban water source and nutrient feedstock; explicit reuse targets spur circular economy transitions and relieve freshwater stress.</p>
45.	<p>Para: 5.2</p> <p>Page: 24</p>	<p>Add “Smart monitoring & early-warning systems” as a resilience activity under Tier 1.</p> <p>(a) Require real-time sensor networks and SCADA (real-time monitoring system) integration to detect sewer overflows or pump</p>	<p>Realtime monitoring reduces response times, preventing service disruptions and environmental contamination during floods; early warning systems enhance adaptive capacity.</p>

		failures within 5 minutes. (b) Mandate automatic diversion to storage basins during extreme rainfall events.	
46.	Para: 5.2 Page: 24	Include “Climate smart O&M protocols” under Tier 2 for sewer networks and treatment plants. (a) Protocols must specify pre-emptive inspections before and after extreme events (floods/droughts) and adaptive maintenance schedules.	Proactive, climate informed O&M ensures infrastructure longevity and continuous service even under fluctuating climatic stresses, reducing repair costs and downtime.
47.	Para: 5.3 Page: 25	Include legacy waste remediation and landfill management as transition activities.	Addressing old waste dumps mitigates GHG emissions and environmental harm
48.	Para: 5.3 Page:25	Propose “Indirect potable reuse pilot projects” as a Tier 2 transition activity. (a) Require pilots to meet WHO water quality standards and ≤ 0.1 NTU turbidity. (b) Include community engagement metrics for acceptance.	Demonstrating safe indirect potable reuse builds public trust, unlocks new water sources, and accelerates circular economy in water stressed cities.
49.	Para: 5.3 Page: 25	Add “Onsite green hydrogen generation from biogas” under Transition Supportive. (a) Facilities must produce ≥ 20 kg H ₂ per day and achieve ≥ 60 % energy conversion efficiency. These standards are tentative. Pilot projects on these metrics need to demonstrate in contextual geographies before mandating final standards.	Blending hydrogen into treatment processes can displace fossil fuels, reducing GHGs and showcasing innovative decarbonisation pathways for biogas plants.
50.	Para: 5.3	Classify anaerobic digestion with biogas capture as a “Transition supportive” mitigation activity. (a) Require ≥ 80 % CH ₄ abatement (monitored) and ≥ 0.3 kWh biogas electricity per m ³ treated.	Conventional treatment emits significant CH ₄ and N ₂ O; capturing biogas reduces GHGs and generates renewable energy, aligning with mitigation goals under NDCs

	Page:25	(b) Identify “energy neutral treatment plants” achieving NetZero grid (Tier 1).	
Chapter 6: Sectoral Coverage			
51.	Section 6 Page: 26	<p>To strengthen the framework’s relevance to India’s urban transition and resilience goals, it is recommended that ‘sustainable urban development’ be added as a core focus sector in India’s Climate Finance Taxonomy, with a focus on “Water, Sanitation, solid waste and storm water management” as a priority sector alongside Power, Mobility, Buildings, Agriculture, and Hard-to-abate sectors.</p> <p>Within the urban development sector, the taxonomy should prioritise the following key enablers:</p> <ol style="list-style-type: none"> 1. Urban Finance and Accounting Reforms <ol style="list-style-type: none"> a. Develop green municipal bond guidelines and standards and integrate climate tagging into local accounting systems (e.g., via UPYOG). b. Establish conditional grants tied to transparent climate budgeting and reporting. c. Build capacity through digital training modules for ULBs. 2. Fiscal Event Standards for Climate Finance <ol style="list-style-type: none"> a. Create standard codes for climate-relevant expenditures across tiers. b. Integrate tagging into systems like PFMS, iFIX, and enforce climate performance budgeting and audits (in coordination with CAG and third-party experts). 	<p>Urban areas are critical to India’s climate goals, accounting for significant emissions and vulnerabilities. However, current taxonomy sectors underrepresent urban governance and infrastructure. Embedding “Sustainable Urban Development” aligns with the taxonomy’s adaptation, mitigation, and transition principles by:</p> <ul style="list-style-type: none"> • Enabling ULBs to access and track climate finance through science-based and transparent accounting practices. • Promoting interoperability with national systems (PFMS, iFIX) and global frameworks (e.g., Climate Bonds Initiative). • Bridging current gaps in funding for waste, sanitation, and water sectors—particularly in small and medium towns. • Aligning with national missions (SBM 2.0, AMRUT 2.0, Jal Jeevan Mission, etc.) and enhancing the taxonomy’s usability by sub-national governments. <p>The inclusion of this sector will also operationalise the taxonomy at the local level, strengthen trust in green financial</p>

		<ol style="list-style-type: none"> 3. Leveraging Digital Public Infrastructure (DPI) <ol style="list-style-type: none"> a. Enable real-time climate finance tracking using platforms like UPYOG/DIGIT, PFMS, and GeM. b. Build APIs and public dashboards to enhance transparency, compliance, and citizen oversight. c. Use DPI for automated verification of compliance (e.g., green procurement, energy ratings, water certifications). 4. Incentivising Climate-Resilient Urban Infrastructure <ol style="list-style-type: none"> a. Prioritise blue-green infrastructure, water conservation, decentralised sanitation, and non-motorised transport systems. b. Digitally track compliance, incentives, and outcomes across infrastructure like STPs, FSTPs, desludging systems, and flood-response mechanisms. 	<p>instruments (e.g., green municipal bonds), and support India’s commitments to SDGs 6, 11, and 13.</p> <p>Recognizing sanitation in climate plans is essential to protect communities and attract the funding this sector urgently needs. Aligned with international climate taxonomy: Many countries like Colombia and EU have included WASH as sector in their climate finance taxonomy</p>
52.	<p>Para 6 Page: 26</p>	<p>Add new subsection "6.15 Water, Sanitation and Hygiene (WASH)" covering water supply, sanitation, solid waste management, and stormwater management.</p> <p>WASH Sub-sector Specific Considerations:</p> <ol style="list-style-type: none"> 1. Water Supply Systems: Last-mile connectivity for ensuring access to water connections for all especially vulnerable population; Climate-resilient source diversification; Smart water management technologies; Renewable energy integration for entire pumping and treatment operations; Water recycling and reuse systems 2. Sanitation Systems: Last-mile connectivity for ensuring access to toilets for all especially vulnerable population; Decentralized 	<p>High Climate Vulnerability: WASH infrastructure is extremely susceptible to floods, droughts, and extreme weather</p> <p>Adaptation Critical: Water security and sanitation are fundamental for climate resilience</p> <p>Mitigation Potential: Proper waste management and efficient water systems can significantly reduce GHG emissions</p> <p>Development Priority: Essential for achieving Viksit Bharat@2047 and SDG 6</p> <p>Policy Alignment: Connects with major national missions like Jal Jeevan Mission and Swachh Bharat</p>

		<p>treatment solutions; Resource recovery technologies; wastewater reuse for creating carbon sinks through urban forests, Climate-adaptive toilet and infrastructure designs; Energy-efficient pumping and treatment processes; Faecal sludge management</p> <p>3. Solid Waste Management: Waste-to-energy systems; Circular economy approaches; Methane capture from landfills; Plastic waste management solutions, E-vehicles for door-to-door collection</p> <p>4. Stormwater Management: Blue-Green infrastructure solutions; Flood resilience measures; Groundwater recharge systems; rainwater harvesting, nature-based solutions.</p> <p>5. The gross over-exploitation of groundwater which is one of the biggest challenges in water management across the country, this needs to be included in this section.</p>	<p>Aligned with international climate taxonomy: Many countries like Colombia and EU have included WASH as sector in their climate finance taxonomy</p> <p>WASH systems face comprehensive climate-induced risks requiring dedicated climate financing. The separate classification enables targeted investment flows for climate-resilient WASH infrastructure, essential for protecting public health and ensuring equitable access to basic services</p> <p>Sustainable agriculture aside, even industrial development and human consumption of water are big competing needs for water. With the pollution of maximum surface water sources, the next available option of groundwater is being grossly over-exploited. There should be a coverage of the current groundwater challenges as well</p>
53.	<p>Para 6 Page: 26</p>	<p>The section needs to be expanded with the following descriptors:</p> <ol style="list-style-type: none"> 1. The urban water supply and sanitation have a significant Direct, Indirect and Embedded climate change impacts 2. Direct impact - methane emissions from untreated sewage and faecal waste. 3. Indirect impact – energy consumed in water supply as well as in wastewater treatment systems - the energy-intensive nature of water pumping, sewage conveyance, and the operation of sewage treatment plants (STPs). 4. Embedded impact – from the ferro-cement construction works of sewerage systems and water supply. 	<p>Add a section in the taxonomy to map government sanitation schemes to climate finance eligibility—e.g., co-financing sanitation innovations under Green Bonds, Climate Resilience Bonds, or Adaptation Funds.</p>

		<p>Recognizing this sector would support efforts to mainstream low-carbon and climate-resilient infrastructure planning at the urban level.</p> <p>Recommend inclusion of sanitation technologies such as decentralised wastewater treatment systems (DEWATS), faecal sludge treatment plants (FSTPs), co-treatment facilities, and reuse infrastructure (treated water for agriculture, landscaping or industry) as eligible under Tier 1 or Tier 2.</p>	
54.	<p>Para 6 Page: 26</p>	<p>Acknowledge greenhouse gas (GHG) emissions reduction from sanitation systems as a valid mitigation outcome. Sanitation systems are much bigger sources of greenhouse gas emissions than previously thought but largely ignored in NDCs and Methane Action Plans.²⁰. Recognise that well-managed sanitation systems significantly reduce methane and nitrous oxide emissions resulting from untreated sewage and open defecation</p> <p>Include GHG mitigation activities such as biogas recovery, wastewater reuse, adoption of low-energy treatment technologies, modern treatment plants equipped with biogas capture and waste-to-energy systems that can offset fossil fuel consumption as eligible examples</p> <p>Permit sanitation utilities to generate carbon credits where applicable.</p> <p>Encourage the deployment of low-energy and decentralised treatment technologies, on-site sanitation solutions which reduce emissions associated with long-distance sewage conveyance</p>	<p>Referencing internationally recognised methodologies will enable credibility, interoperability, and unlock climate financing (green bonds, climate funds) for sanitation projects. This also helps avoid greenwashing by providing evidence-backed classification of sanitation activities.</p> <p>GHG Mitigation in the sanitation sector is increasingly streamlined in the Indian Sector. For example, Delhi’s Okhla STP generates 4 MW electricity/day from biogas, cutting 52,000 tonnes CO₂/year.</p> <p>Methane accounts for approximately 16% of global greenhouse gas emissions in CO₂-equivalent terms, yet its high global warming potential—around 25 times that of CO₂ over a 100-year horizon—makes it a powerful driver of climate change. Sanitation-related activities, particularly solid waste</p>

			<p>disposal and wastewater treatment, are significant anthropogenic sources of methane emissions. According to UNFCCC inventory data, Annex I countries reported a reduction in methane emissions from the waste sector, declining from around 22 Mt CH₄ in 1990 to 16 Mt CH₄ in 2021. Despite this progress, the 16 Mt CH₄ still emitted annually equates to nearly 400 Mt CO₂-equivalent, comparable to the total yearly emissions of a mid-sized industrialized country. Capturing just 50% of this methane—through strategies like landfill gas recovery and anaerobic digestion in wastewater treatment—could yield a climate benefit equivalent to avoiding 200 Mt CO₂-equivalent per year, demonstrating the substantial mitigation potential of sanitation-related interventions.²¹</p>
55.	<p>Para: 6 Page: 26</p>	<p>Data Driven & Focus on Hill Cities</p> <p>1. Data driven policymaking and spatial planning by integrating technologies like remote sensing and GIS. This should also lead to technology driven monitoring systems ensuring adherence to planning regulations.</p> <p>2. Hill cities are highly susceptible to hydrological and geophysical hazards due to landslides, floods, earthquakes and exacerbated by pressures of tourism and transportation systems. Deploying digital water monitoring and management system, along with hazard mapping using IoT sensors, remote sensing, real time data analytics, BIM, AI tools and digital early warning system can enable awareness, forecasting and decision-making.</p>	<p>Rapid urbanization trends in hill cities in Indian Himalayas are directly linked to change in Land Use and Landcover, which strains scarce land and water resources. Studies of Shimla and similar cities reveal population growth, illegal construction, tourism and unscientific infrastructure planning result in increased vulnerability to hazards and degradation of natural environment. Scientific literature and international case studies show that digital twin systems are feasible and effective for disaster mapping and management in hill cities.</p>

56.	Para: 6.14 Page: 30	<p>Recommend broadening the scope and definition of agriculture. Agriculture should be explained and focused upon with a more open and inclusive definition, which should include livestock rearing, Non-Timber Forest Products (NTFPs), forestry, fisheries, and other forms of farming.</p> <p>Community resources or commons such as water, genetic pools, and soil are critical for the resilience of farming systems and therefore should be part of adaptation strategies. Alongside this, there should be focused efforts on women farmers as the most vulnerable group. The taxonomy should support greater control by farmers and communities over their practices and resources.</p>	<p>As mentioned in the context, more than 80 per cent of farmers cultivate small plots of land and they practise diverse systems of farming at household and community levels. It is critical to address farming systems with a holistic approach embedded in the social and ecological context of the landscape.</p>
57.	Para: 6.7 Page: 28	<p>Mobility: Include criteria for public transport (e.g., buses with emissions $<x \text{ gCO}_2\text{e/passenger-km}$), and freight decarbonization (e.g., rail reducing emissions by $x\%$).²</p>	<p>The draft focuses on EVs but overlooks broader mobility solutions. The UN's Sustainable Transport Strategy emphasizes holistic approaches, critical for India's transport growth.</p>
58.	Para: 6.9 Page: 28	<ol style="list-style-type: none"> 1. Emphasis on EVs should be accompanied by environmental standards for sourcing of minerals such as lithium, cobalt and other rare earth minerals. 2. Responsible sourcing protocols should be incorporated for critical minerals to be used in EVs and batteries. 3. Government initiatives and focus on improvement of public transport infrastructure and last mile connectivity can improve incentives to use such transport. 	<p>High emphasis on EVs also requires frameworks for sustainable sourcing for manufacturers. On the consumption or user side, there is a need to incentivise and increase popular use of public transport through public campaigns, improving last mile connectivity.</p>

59.	Para: 6.10-6.11 Page: 28, 29	<ol style="list-style-type: none"> 1. Encourage low-carbon materials (e.g., fly ash bricks, bamboo) and require building material disclosures, in line with best practices for locally appropriate materials. 2. Incentivize climate-proof, nature-integrated affordable housing projects in urban and peri-urban zones. 3. Nature-based Urban Design should be stated within the climate taxonomy framework. Currently it focuses heavily on energy but not enough on ecosystem-based adaptation (EbA). This should include a framing for green roofs, permeable surfaces, urban biodiversity gardens, and native landscaping that reduce urban heat and stormwater runoff while supporting biodiversity. 	<p>The draft omits lifecycle emissions and resilience, critical for India’s urban growth. The EU Taxonomy’s lifecycle approach provides a model.</p> <p>With India rapidly urbanising, in the context of rising temperatures and climate change, there is a need for climate-smart architecture. Avoiding heat trapping materials; additionally, green roofs, terraces and walls can play a role in cooling urban spaces. Building complexes should focus on landscaping that leaves soil open rather than using concrete. Additionally, climate finance should be socially just, therefore, there is a need for the government to incentivise affordable housing to combat challenges for vulnerable groups.</p>
60.	6.12, 6.13 & 6.14 Page: 29 & 30	Strengthen linkages between sanitation, water security and agriculture under adaptation measures.	<p>Treated water reuse supports agricultural resilience, conserves freshwater, and contributes to climate adaptation. Same argument holds well with reuse of biosolids being generated from the sanitation value chain. Recognizing this nexus in the taxonomy can unlock finance for reuse systems, especially in water-stressed and peri-urban regions. This is in line with the Draft Liquid Waste Management (LWM) Rule released by the MoEFCC.</p> <p>Resource recovery is critical for safe and green environment; adding the same is necessary and can be adapted from EU Taxonomy Regulation, Annex I and ASEAN Taxonomy, Version 3, 2024.</p>
61.	Para: 6.14	Recommend highlighting how agriculture related finance can be improvise it, since it is decreasing in the sector	Mentioning it as a backbone of our economy and providing it the importance of climate adaptability. but what are the

	Page: 30		constraints that are limiting funding into climate-resilient agrifoods.
62.	Para: 6.14 Page: 30	<ol style="list-style-type: none"> 1. Add nature-based and agroecological solutions including regenerative farming practices, biodiverse, low-input, and climate-resilient cropping systems, community-managed water harvesting and soil health systems to sectoral solutions 2. Add a focus on urban agriculture that can reduce dependencies on rural land, reduce emissions from long supply chains and cold storage, support livelihoods of urban and peri-urban farmers and can promote water efficiency with increased usage of urban recycled water 3. Add local non-market solutions such as participatory governance and co-management of resources, including community grassland management, commons-based water and forest governance, fisheries co-management, community seed sovereignty and biodiversity conservation networks 4. Embed vulnerability-weighted prioritization into the taxonomy 	<p>In the sectoral classification, the taxonomy risks promoting climate-smart agriculture as a technological solution, potentially overlooking other effective nature based, indigenous, and non-market solutions. Building resilience in food systems requires addressing ecological resilience (biodiversity, soil, water, agroecological practices) and social-economic resilience (equity, gender, caste, land tenure and access, income diversification, credit, market access, assets) along with infrastructure investments (irrigation, water infrastructure, storage and transport facilities, etc.). Nature based solutions (NbS) are recognised to be a critical component in watershed development, soil and water conservation, disaster risk reduction, food security, fodder scarcity, biodiversity conservation and carbon sequestration projects, etc. A portion of climate finance should be earmarked for non-market, locally embedded adaptation systems. Such approaches are low-carbon, resilient, and historically effective in India’s diverse agro-ecological zones, but often fall outside the scope of mainstream financing mechanisms. Additionally, while the section notes small and marginal farmers are vulnerable, it does not adopt a vulnerability index towards prioritizing finance based on caste, gender, tenancy, or landholding-based disaggregation. There is a need to embed vulnerability-weighted prioritization into the taxonomy. For example, rainfed districts, projects that benefit tenant farmers,</p>

			cultivators, and women-headed farms should receive enhanced eligibility or risk guarantees.
63.	Para: 6.14 Page: 30	<ol style="list-style-type: none"> 1. Include mitigation criteria (e.g., soil carbon sequestration increasing carbon storage by x tCO₂e/ha/year) alongside adaptation measures (e.g., drip irrigation saving x% water).³ 2. Include a framework to prevent maladaptation by quantifying the total climate risk and environmental externalities for agricultural practices promoted by adaptation finance. This is to ensure that mitigation and adaptation measures in food systems do not further exacerbate environmental degradation. 3. The framework should allow assessing where the crop choices incentivised by climate finance are appropriate to the region's geography. 	The draft focuses on adaptation but misses mitigation potential of agriculture, which is significant per FAO's Climate-Smart Agriculture guidelines. The choice of crop and agricultural technologies can have a complex impact on the ecosystem through multiple channels (water depletion, agrochemical contamination, emissions, biodiversity). Identifying and assessing these channels will ensure that activities promoted by climate-related finance for agrifood systems follow the "Do No Significant Harm" principle and avoid greenwashing. Eg. Promoting solar electricity for irrigation in areas with depleting ground water, or providing drip-irrigation without incentivising the right crops could threaten food and water insecurity.
64.	Para: 6.14 Page: 30	<p>The objective and principles of achieving greater climate resilience in a climate finance taxonomy – must recognise the importance and need for both public and private investment.</p> <p>Again from a global south context, this is very different and particular to India, where given the economic disparities, public investments will remain important in both rural and urban sphere.</p>	For example, agriculture and water security adaptation measures will need more public investment in watershed and water conservation measures and not just new technologies and private investments.
65.	Para: 6.15, 6.16 and 6.17 Page: 30 and 31	Include waste-to-energy and circular economy initiatives (e.g., recycling, composting) as transition-supportive activities	Include Municipal Solid Waste processing and Waste-to-Energy, Biogas, Bio-CNG, compost, and RDF as partly hard-to-abate sectors, with a clear transition plan. Waste management reduces GHG emissions and aligns with India's net-zero goals.

Chapter 7: Public consultation and Next steps

66.	Para: 7 Page: 31	Include a time-bound roadmap for finalisation, consultation and sectoral annexure development. Recommend specifying key milestones Include milestones such as: Q2 2026 for public consultation completion, Q4 2026 for framework finalisation, and Q2 2027 for initial sectoral annexures.	Enhances transparency and predictability, enabling stakeholders to plan aligned sectoral and financial actions. Comparable taxonomies globally have benefited from such planning and clarity.
67.	Para: 7.3 Page: 31	Ensure that upcoming sectoral annexures include urban sanitation as a priority area in the next phase. Recommend formal inclusion of urban sanitation (including FSSM, STPs, wastewater reuse, etc.) in sectoral annexures, with clearly defined climate relevance and eligibility thresholds.	Annexures enable effective execution by detailing sector-specific activities, criteria, and pathways. Including urban sanitation in the initial annexures will formalize its integration into climate finance and clearly signal its priority to financial institutions and state governments.
68.	Para: 7 Page: 31	Recommend formal inclusion of urban sanitation in Phase 2 of sectoral annexures and initiation of a dedicated, multi-stakeholder consultation process for its development. This process to include: 1. A structured stakeholder mapping and consultation process specifically for urban sanitation in the development of sectoral annexures. 2. Include sanitation experts and organizations (e.g., Sulabh International, Central Pollution Control Board, Ministry of Housing and Urban Affairs) in public consultations and Sectoral Technical Committees (STCs) along with ULBs, civil society, think-tanks, MSMEs, and decentralised service providers.	Sanitation is a critical climate-relevant sector with unique institutional structures and implementation models. A dedicated annexure co-developed through participatory processes. It will ensure the taxonomy reflects both mitigation and adaptation opportunities, supports innovation and localised resilience, and aligns with SBM 2.0 and AMRUT 2.0 financing frameworks.

		<p>3. The sanitation annexure should outline taxonomy-aligned DPR models, climate-relevant eligibility thresholds, monitoring indicators, and blended finance mechanisms.</p> <p>4. Recommend that sectoral annexures for sanitation be developed in Phase 2, detailing qualifying criteria and investment needs.</p>	
General Recommendations			
69.	General Recommendations	<p>Develop clear criteria showing how sanitation investments:</p> <ol style="list-style-type: none"> 1. Reduce climate vulnerability (e.g., flood-proof toilets, Water efficient toilets in drought prone areas) 2. Improve water security via reuse 3. Protect health during extreme events (heatwaves, floods) 4. Stormwater management integrated with sewer systems 5. Emergency response protocols for sanitation during climate events. 	<ul style="list-style-type: none"> • Sanitation systems in India, especially in urban and peri-urban areas, are highly exposed to climate hazards such as urban flooding, cyclones, droughts and heatwaves • Frequent flooding damages toilets, septic tanks, sewer networks and treatment plants — leading to contamination and outbreaks • Prolonged droughts reduce water availability for sewer flushing and treatment operations • Supports India’s National Adaptation goals and local resilience building [Para 4.1(g) (Science based/transparent)]
70.	General Recommendations	<p>Promote that safe and resilient sanitation (faecal sludge management, wastewater treatment, and reuse) be formally listed as an eligible sector</p>	<p>Include climate-resilient toilets, flood-proof treatment plants, energy efficient STPs, and reuse for agriculture.</p>

71.	General Recommendations	<p>Strengthening guidance on how the taxonomy can support climate finance at state and local level.</p> <p>In this context, it would be good to consider a separate annex or guideline for ULBs/state governments to use the taxonomy in climate budgeting, green municipal bonds, and state action plans.</p> <p>Promote interlinkage with circular economy, especially for wastewater reuse, nutrient recovery, and energy generation. Coordinate with MoHUA and MNRE to define taxonomy-aligned model DPRs and funding streams for sanitation projects.</p>	<p>Climate finance taxonomy is essential to be drilled down to sub-national and local level as local bodies use municipal budgets as tools for city planning.</p>
72.	General Recommendations	<p>Climate Bond Taxonomy Compatibility for Sanitation</p> <p>India’s taxonomy currently lacks convergence with the Climate Bonds Initiative (CBI) taxonomy, which categorizes sanitation (wastewater treatment, water reuse) under eligible green bond investments.</p>	<ul style="list-style-type: none"> • Develop sanitation-related criteria that match or exceed CBI thresholds for emissions intensity, circularity, and pollution reduction. • This alignment will help Indian municipalities and utilities access international green bond markets to fund sanitation infrastructure. Initiatives taken by Surat Municipal Corporation may refer.
73.	General Recommendations	<p>SDG Alignment – Especially SDG 6, 11, and 13</p> <p>CFT lacks an explicit link to the Sustainable Development Goals, particularly SDG 6 (Clean Water and Sanitation) and SDG 13 (Climate Action), which are often used internationally to frame climate finance outcomes.</p>	<p>Include an SDG mapping in the taxonomy’s sanitation section, identifying contributions to:</p> <ul style="list-style-type: none"> ▪ SDG 6.2 (Access to safely managed sanitation) ▪ SDG 6.3 (Reduce pollution, recycle and reuse wastewater) ▪ SDG 11.5 (Reduce disaster impacts in urban areas) ▪ SDG 13.1 (Resilience of vulnerable communities)