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gamma
YEARS OF EXCELLENCE
a decade of trust, partnership,
and shared success...

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a decade of trust, partnership, and shared success…



H.E. Ms May-Elin Stener

Ambassador of Norway to India

FOREWORD

Ensuring clean and healthy oceans is a key priority for the Norwegian Government. As a nation with a long maritime heritage, we believe that oceans are not simply an anchor for global trade and exploration, but also a vital part of our culture and economy. Most importantly, they are a shared global responsibility. Oceans sustain ecosystems and support economic growth worldwide. The global ocean economy is estimated to contribute more than USD 2.5 trillion to global GDP annually and sustains at least 350 million jobs worldwide. Recognizing this vital role, sustainable ocean management, in line with the Sustainable Development Goals (SDGs), is a cornerstone of Norwegian development policy.

Reports and studies point to staggering amounts of litter, including plastic and microplastics, in the world's oceans. Between 9 and 14 million tonnes of plastic are released into the world's oceans each year. Aside from potentially devastating effects on marine life, human health is also compromised. Norway is committed to efforts to prevent plastic and marine pollution through comprehensive domestic initiatives, targeted international development aid, and high-level diplomatic engagement.

Combating marine plastic is one of the major focus areas for Norwegian ocean aid. Through its aid program against marine litter, Norway supports developing countries, civil society and researchers to actively address challenges posed by plastic pollution.

India is tackling plastic marine pollution through a comprehensive legal and policy framework that includes bans on certain single-use plastics,

the implementation of Extended Producer Responsibility (EPR), and flagship programs such as Mission LiFE and Swachh Bharat Mission. I commend India for its strong commitment and proactive measures to protect our shared marine environment.

The India-Norway Marine Pollution Initiative, an integral part of the bilateral agreement between the Governments of India and Norway, supports India's efforts on waste management. The initiative promotes projects that are innovative, catalytic and collaborative, with the objective of reducing marine litter and other pollutants, while fostering more sustainable waste management practices, particularly with regard to plastic waste.

Mu Gamma Consultants, headed by Dr. Girija Bharat, is a partner in the initiative and plays a leading role in the India Norway Capacity Building Project to Reduce Plastic and Chemical Pollution in India (INOPOL). Mu Gamma's contribution to research, advocacy and training support in the INOPOL project on plastic waste management, hazardous chemicals and circular economy, has been significant and commendable. Norway values and appreciates Mu Gamma's association with Norwegian institutions for over a decade.

I congratulate Mu Gamma Consultants on reaching this successful 10-year milestone. Here's wishing that the next decade deepens your impact, expands your partnerships and further advances our shared commitment to clean, healthy and productive oceans.



Ms Supriya Sahu, IAS

Additional Chief Secretary,
Environment, Climate Change & Forests Department
Government of Tamil Nadu

MESSAGE

As Mu Gamma Consultants completes ten years, it is a good moment to acknowledge their steady work in simplifying environmental challenges and offering clear, practical insights. Their engagements across climate resilience, pollution management, and circular economy have supported meaningful decision making.

In a time when evidence-based solutions are essential, Mu Gamma's grounded approach has been useful to many institutions and governments. Their recent works, a Baseline Report on "Plastic Waste Management in Tamil Nadu - Perspectives and Pathways", "Hazardous but Invisible- Baseline Report on Persistent Organic Pollutants (POPs) in Tamil Nadu, India" reflect this clarity and commitment to strengthening environmental governance.

I wish them the very best as they continue their efforts in the years ahead.



Laura Sustersic
Project Director
SGR Phase 3, GIZ India

MESSAGE

It gives me immense pleasure to extend my heartfelt congratulations to Mu Gamma Consultants Pvt. Ltd. on completing a remarkable decade of impactful work. Over the years, Mu Gamma has established itself as a trusted knowledge partner, committed to promoting sustainable and inclusive development through innovative, environment-friendly solutions.

Our collaboration with Mu Gamma under the SGR project has truly been enriching and rewarding. Over the years, we've had the privilege of working closely with their dedicated team on developing the National Safe Reuse of Treated Water (SRTW) Framework for India and SRTW Policies for the states of Uttarakhand and Uttar Pradesh, on the creation of trainings on River Basin Management and knowledge exchange on waste-water-based-epidemiology (WBE) during COVID-19. In these joint efforts, we have come to appreciate Mu Gamma's strong technical expertise and also their deep understanding of local contexts and ability to adapt global knowledge to address local needs. The Mu Gamma team has always brought great professionalism, openness, and a genuine spirit of collaboration to every stage of our work together, making the entire process both productive and enjoyable.

As they celebrate this significant milestone, I would like to acknowledge Mu Gamma's role as a valued consultant and partner in advancing sustainable policy frameworks and facilitating constructive policy dialogues. We at GIZ sincerely appreciate their dedication and look forward to continuing this fruitful partnership in the years ahead. Congratulations once again, and best wishes for an inspiring journey ahead!



PREFACE

Dr Manish Kumar

Chairperson, Mu Gamma Consultants

As Mu Gamma Consultants commemorates its 10th anniversary, we look back on a remarkable decade shaped by unwavering diligence, innovation, and commitment to safeguarding our environment. What began as passionate environmental conversations between like-minded individuals has grown into an organization working hard and with sincerity at the forefront of pollution reduction, climate resilience, and sustainable development. Each milestone in our journey reflects a deep belief that meaningful environmental change requires both scientific rigor and bold, forward-thinking ideas.

Innovation has been our compass. Over the years, we have embraced cutting-edge tools, advanced research methodologies, and creative problem-solving approaches to address some of the most pressing ecological challenges of our time. An opportunity that has lately come our way, and which we are embracing enthusiastically, is the integration of artificial intelligence. Through AI-powered modeling, predictive analytics, and intelligent monitoring systems, we are unlocking new possibilities, enabling faster, more accurate assessments, and empowering our clients and communities with actionable environmental insights. This digital transformation has strengthened our capacity to anticipate change, design smarter solutions, and scale sustainability in ways once unimaginable. Most importantly, it has given us the opportunity to democratize scientific knowledge, amplifying capacity building potential through the launch of Mu Gamma Knowledge and Skills Academy.

This Coffee Table Book captures the depth of that journey. Within these pages are the stories of pioneering projects, application of technologies for human well-being, and collaborative efforts that have shaped our identity. It celebrates not only our achievements, but also the partners, innovators, and communities who have walked alongside us.

As we look toward the next decade, our purpose remains clear: to continue pushing boundaries, leveraging AI and innovation responsibly, and championing sustainable development as an essential pathway to a healthier, more resilient world.

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01

The Advent



01 The Advent

Genesis

Mu Gamma was born out of the vision: to combat environmental pollution and champion the conservation and preservation of natural resources. In November 2015, this vision took shape with unwavering passion, perseverance, and patience.

The name itself reflects our ethos: the precision of deliverables symbolized by **μ (mu)**, and the far-reaching impact represented by **γ (gamma).** Thus, **μγ** was conceived with a modest purse, but a bold dream—and an even bolder purpose: to build a greener, healthier planet.

As fate would have it, opportunities began to emerge. Past clients and collaborators supported and slowly, the scattered puzzle pieces started to align. Our team grew organically, expanding in both strength and reach.

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Narratives from the Past

Our commitment to excellence spoke louder than words. It earned us visibility and trust, leading to new assignments from esteemed institutions such as The World Bank, USAID, the National Institute for Urban Affairs (NIUA), and Deloitte.

Then came a pivotal moment—a call from **Dr. Luca Nizzetto** of the Norwegian Institute for Water Research (NIVA), Oslo. He proposed a multi-year, high-impact research collaboration on Endocrine Disrupting Chemicals (EDCs) in food and drinking water. We were unsure if NIVA would partner with a newly formed organization,





which just got incorporated. His response was unforgettable:

"We want you, irrespective of Mu Gamma being a new organization."

That affirmation became our first stepping stone— a milestone that propelled us forward. We immediately put together a consortium of partner organizations in India. The project, funded by the Research Council of Norway (RCN), was our first big project. It was delivered with both head and heart, yielding far-reaching outcomes. We remain deeply grateful to Dr. Luca Nizzetto for that initial breath of oxygen, and to **Dr. Thorjørn Larssen**, Deputy Managing Director, NIVA for the first collaboration with NIVA during the Founder's tenure at TERI, which unfolded into several high impact projects in the 15 years of association with NIVA. **Mu Gamma, a spin-off company, nurtured by the Indo-Norwegian partnership**, owes its very existence to Norwegian support - The Research Council of Norway, Royal Norwegian Embassy in New Delhi, NIVA and NORAD.


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WATER AND WASTE MANAGEMENT CONCLAVE
FEBRUARY 06, 2024
INDIA HABITAT CENTRE, NEW DELHI
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CHEMICALS



02

The Journey



02 The Journey

Milestones and Moments

2015–2025: A Decadal Timeline of Milestones and Transformation

From water, sanitation and hygiene to resource management, from riverine to marine pollution, and from emerging contaminants in water to food—we experimented it all. The first five years, 2015–2020, shaped our resilience and sharpened our focus.

Another major turning point came with the **INOPOL project,** under the India-Norway Marine Pollution Initiative supported by **Royal Norwegian Embassy** in New Delhi and **Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India**. Under INOPOL, we are building capacity of the Central and State Pollution Control Boards of India to reduce plastic and chemical pollution. NIVA is the Project Lead, Mu Gamma is the India Lead and we have collaboration with SRM Institute of Science &



Technology, Central Institute of Petrochemical Engineering and Technology (CIPET) and Toxics Link. This project marked our metamorphosis from a start-up to a stand-up. We remain deeply grateful to the Norwegian Embassy for their trust and for giving wings to our aspirations.

Another landmark project was the **Safe Reuse of Treated Water (SRTW)**, commissioned by **Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH** and the **National Mission for Clean Ganga (NMCG), Ministry of Jal Shakti**, under the India-EU Water Partnership. At the time, we couldn't have imagined that developing the National Framework on SRTW for India would so profoundly **reshape India's circular economy landscape** and we would get several opportunities in this sector. Soon, we were invited to draft the SRTW policies for multiple Indian states, and the term "SRTW" became a buzzword across the water sector.

Timely delivery and unwavering commitment earned us trust and credibility, enabling us to undertake high-impact work that translated into real-world transformation.

Our team's sincerity, cohesion, and professionalism became the bedrock of our culture. We walk the talk—MGCians are magicians. Our reputation grew, not just within India but across international platforms.







Maps and Footprints

A visual journey tracing our global impact—from India to Canada to Dubai.

The years 2020–2025 brought new dimensions: fresh projects, new publications, expanded funding, and unexplored territories. Yet, the support from the Norwegian Embassy and NIVA remained unmatched.

Mu Gamma Consultants became an ISO: 9001 Certified organization



From India to Canada to UAE

MGC India

Water Resource Management, Marine pollution, Climate Change, Plastic Pollution, Safe Reuse of Treated Water, Emerging Contaminants



MGI Canada

ESG training

Sustainability

MGC UAE

Environmental Pollution

Skill Development

AI and innovation in research

Then came an unexpected honor to our Founder for the **"Women Transforming India" (2021) award** by **NITI Aayog and the United Nations**. This recognition opened doors to further accolades. IIM Bangalore and the Indian School of Business (ISB) chose her among 75 women entrepreneurs of India for fully funded leadership programs—experiences that proved invaluable in the entrepreneurial journey.

Our publications in high-impact journals and reports appreciated on global platforms gave us a powerful boost.







During the COVID-19 pandemic, we pivoted **wastewater-based epidemiological studies** to monitor SARS-CoV-2 in community wastewater. NITI Aayog invited us to present our findings to their expert committee, which then shared our research findings with the Chief Secretaries across all the States and Union Territories of India. This study, supported by the **Swiss Agency for Development and Cooperation (SDC),** was another proud moment for Mu Gamma.

MGC colleagues received various awards



Avanti Roy Basu
received the
Aqua Excellence Award
under the category of
Women in Water – Private Sector, 2022



Nathaniel B Dkhar
received the
Save the Environment (STE) Green Excellence Award, 2023



Dr Sonia Grover
received the
Aqua Excellence Award (Water & Environment)
under the category of
Professional Excellence (Individual), 2024



Avanti Roy Basu
received the
Save the Environment International Achiever Award, 2024

MGC colleagues received OMLAS Fellowship



Dr Kriti Akansha



Nathaniel B Dkhar

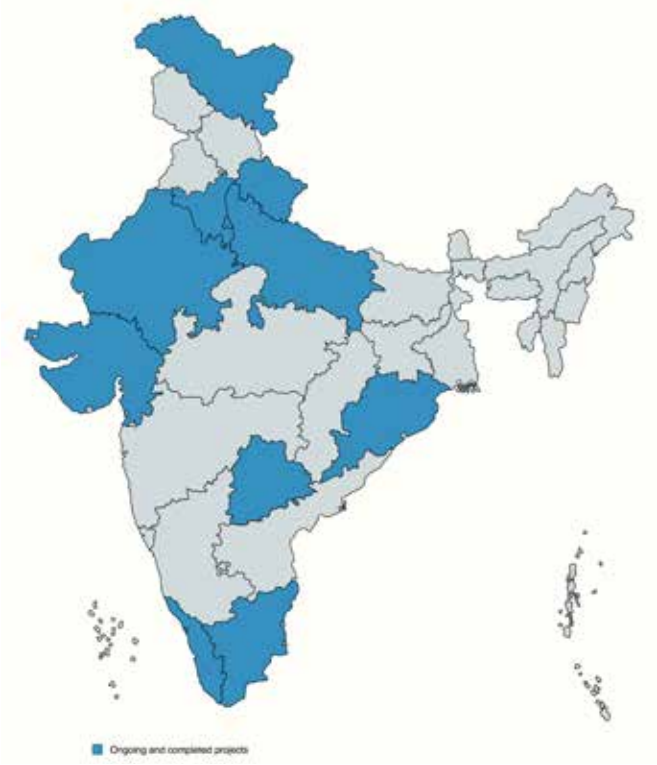
OMLAS
One Million
Leaders Asia



Anagha Krishnan



Manisha Jain



By this time, we had ongoing and completed projects in Gujarat, Haryana, Odisha, Ladakh, Tamil Nadu, Uttar Pradesh, Uttarakhand, Rajasthan, Telangana, Kerala and Delhi.

We have partners in Norway, Switzerland, Sweden, Germany, Georgia, Belgium, USA, Canada, Australia, Republic of Georgia and UAE.





Our work further expanded into **climate change** and our **Discussion Paper titled: "Climate Resilience in Water Resource Management in India: A Conceptual Framework for Action"** was unveiled during the 8th India Water Week in September 2024.

Wherever we went, we left a strong footprint and we continue to do so....

Our Growth in Numbers



From a two-member team to a vibrant group of 21, our numbers and our reach continue to grow.

In 2023, we launched **Mu Gamma International** in Kamloops, British Columbia, **Canada**, offering services in the Environment, Social, and Governance (ESG) space.

Most recently, we established **Mu Gamma UAE** in Dubai, focusing on environmental consulting, skill development, and AI-driven innovation.





03

The Impact



03 The Impact

FLAGSHIP PROJECTS

Theme 1 Plastic Pollution and Emerging Contaminants







A. India-Norway Cooperation Project on Capacity Building for Reducing Plastic and Chemical Pollution in India (INOPOL) (2019-2026)

Support

Royal Norwegian Embassy in New Delhi and MoEFCC, Govt of India under the India-Norway Marine Pollution Initiative

In collaboration with

NIVA, SRMIST, CIPET, TERI, Toxics Link

Aim

To address interconnected challenges of marine litter, plastics, and Persistent Organic Pollutants (POPs) through a science-based, capacity-building approach.

Highlights

- **Science & Knowledge:** Developing technical methods, and to monitor and analyze plastics and POPs pollution.
- **Capacity building and awareness generation:** Of industries, government agencies and civil society organisations.
- **Policy Support:** Evidence-based inputs for informed decision-making. Baseline, Strategy reports, Action Plans

Geographic focus

- *First phase (2019–2022)*: Tapi River (Surat) & Daman Ganga River (Vapi), Gujarat
- *Second phase (2022–2026)*: Cauvery River (Chennai, Tamil Nadu) & Uttarakhand

Impacts

- Strengthened river monitoring capacity and POPs/plastic waste management insights.
- Generated datasets on plastics & POPs in riverine (and marine) ecosystems.
- Enabled evidence-based policy making and research collaboration.

B. Multi-scale Analysis of the Health Attributes of plastic recycling in India (MAHAT) 2025-2028

Support

Research Council of Norway (RCN)

In collaboration with

NIVA, SRMIST, Norwegian Institute for Air Research (NILU)

Aim

To reveal the public health implications of plastic waste recycling in India, with a special focus on vulnerable groups involved in the informal and quasi-formal recovery sector. The project aims





to illuminate a so far overlooked segment of the waste handling sector - **the plastic scraping-sorting-repelleting industry (PSSRI)** - which employs hundreds of thousands of individuals in India.

Highlights

- This study is relevant to achieve SDG 3, Target 3.9, which aims to significantly reduce the number of deaths and illnesses from hazardous chemicals in air, water, and soil.
- This study will specifically develop and deploy an integrative multi-scalar framework to assess vulnerability and potential health implications for two groups in an urban Indian setting: workers in the PSSRI industry and the residents of communities neighbouring these industrial sites.
- We will investigate both the direct toxicological pressure posed by the pollutants released to air and water by this industry, and the indirect social and environmental determinants of health.
- Elucidating these cross-scalar linkages is key to understanding underlying vulnerabilities and design effective health protection interventions.

Geographic focus

Chennai, Tamil Nadu

Impacts

By employing an interdisciplinary and multi-scalar approach, integrating theories and methodologies from environmental chemistry, international environment and development studies, complex systems and public health science, MAHAT seeks to provide critical insights into the health equity implications of plastic recycling within the context of a just transition and a circular economy.



C. Pilot study for plastic and biomedical waste management during COVID-19 pandemic in Surat and Delhi (2020)

In collaboration with

NIVA, Toxics Link

Aim

To analyse how the COVID-19 pandemic impacted plastic and biomedical waste generation, and its effects on waste management systems and informal workers in India.

Highlights

- Examined surge in single-use plastics & personal protective equipment (PPEs) and its impacts on the informal waste workforce.
- Proposed measures to support the informal waste management sector and reduce associated health risks.

Geographic focus

- Surat, Gujarat
- South Delhi Municipal Corporation and East Delhi Municipal Corporation

Impacts

- Revealed environmental burden of pandemic-driven waste generation.
- Identified gaps in biomedical & plastic waste management.
- Identified the vulnerabilities of informal waste workers.
- Informed policy and practice to strengthen resilience in future health emergencies/ pandemics.



D. Asian Scientific Alliance for Plastic Pollution and Value Network Management (ASAP) (2020-2024)

Support

Research Council of Norway

In collaboration with

NIVA, GRID-Arendal (Norway), SALT (Norway)

Aim

To establish a regional knowledge hub - **International Knowledge Hub Against Plastic Pollution** (IKHAPP) - on plastic pollution and waste value networks, integrating data and research on sources, pressures, impacts, and socioeconomic dimensions.





Highlights

- Bring together an international community of scientists.
- Build a database of peer-reviewed information on plastic waste.
- Focus on pollution conditions, drivers and mechanisms as well as the effectiveness of solutions.

Geographic focus

- Norway, India, China, Indonesia as priority countries.

Impacts

- Provide science-based support to three Asian governments in their efforts to address plastic pollution.
- Enhance stakeholder access to state-of-the-art research.



E. Endocrine Disruptors in Indian Food: Minimizing Children Exposure and Fostering a Safer Space for Agriculture and Food Market (EDIFY) (2018-2021)

Support

Research Council of Norway

In collaboration with

NIVA, SRMIST, TERI, Toxics Link

Aim

Protect human health in India by reducing exposure to endocrine-disrupting substances (EDS) through food and drinking water.

Highlights

- Assessed exposure pathways of EDS in food and water.
- Studied climate and human activity impacts on EDS levels in water and agriculture.
- Identified strategies to reduce exposure, especially for children.
- Built a knowledge base for sustainable, EDS-focused policies, prioritizing vulnerable groups.
- Linked food safety with agricultural resilience.





Geographic focus

- Delhi and Dehradun

Impacts

- Conducted first assessment of EDS in Indian diets, linked to socio-economic & climate factors.
- Developed a Discussion Paper to reduce EDC exposure.
- Produced EU–India policy analysis to strengthen regulatory alignment.
- Promote safer diets and new markets.





Theme 2 Water, Sanitation and Hygiene (WASH) Systems Strengthening

A. Developing an actionable Roadmap on hand hygiene for Odisha (2023)

Support

UNICEF-Odisha

Aim

To accelerate universal and equitable access to hand hygiene in households and institutions of the Government of Odisha by 2030.

Highlights

- First state-level actionable roadmap dedicated to hand hygiene.
- Co-created a state-level, time-bound strategy for sustaining hand hygiene post-COVID-19.
- Integrated infrastructure (handwashing stations, reliable water supply, soap availability) with behaviour change strategies (awareness, training, community participation).
- Defined interventions, stakeholder roles, targets, financing mechanisms, and tailored communication messages for six key State Departments to ensure effective implementation.







Geographic focus

Entire state of Odisha, encompassing both rural and urban communities.

Impacts

- Identified pathway for improved public health outcomes by reducing water-borne and hygiene-related diseases.
- Contributed to strengthening WASH sys-temsacross schools, health centres, and communities.
- Increased resilience against future health emergencies and pandemics.
- Contributed to achieving SDG 6.2 on sanitation and hygiene.



B. Sustainable Water Supply and Sanitation Sector Development Program (2023-2024)

Support

United Water Supply Company of Georgia (UWSCG), Republic of Georgia, and the Asian Development Bank (ADB)

Aim

To improve and expand the laboratory services of UWSCG for its water and wastewater operations, upgrade compliance of its operating service centers, and laboratories to international standards.

Highlights

- Comprehensive assessment of UWSCG laboratories, staff skills, and equipment, including gap analysis.
- Development of a Mid- and Long-Term Master Plan for modernizing laboratory infrastructure and building staff capacity.
- Recommendations for institutional adjustments, including potential commercialization of laboratory services.

Geographic Focus

Across Georgia, benefiting urban and rural populations through a national-level laboratory network.







Impacts

- Upgraded laboratories meeting national and international water quality standards.
- Skilled workforce trained in modern testing processes and equipment.
- Optimized use of resources through centralization and standardization.
- Enhanced credibility of UWSCG laboratories, supporting both public services and commercial opportunities.
- Master Plan for sustainable laboratory development across Georgia.





C. Creating high-impact activities for strengthening WASH ecosystem (2024)

Support

JHPIEGO (a Johns Hopkins University affiliate); funded by USAID.

Aim

To enhance visibility and advocate for WASH interventions under NISHTHA, a flagship health systems strengthening project, to facilitate the scalability of their work.

Highlights

- Stakeholder mapping and tailored advocacy for policymakers, experts, influencers, and the public.
- Knowledge sharing through policy briefs, articles, conference presentations, podcasts, op-eds, and social media.
- High-intensity awareness campaign to integrate WASH into the healthcare ecosystem.

Geographic focus

Five project states (Madhya Pradesh, Jharkhand, Chhattisgarh, Sikkim, and Nagaland)

Impacts

- Long-term transformation of hygiene and healthcare practices.
- Policy influence through stakeholder feedback on key briefs.
- Stronger partnerships enhancing scalability of WASH interventions.





Theme 3 Safe Reuse of Treated Water (SRTW) and Water Circularity

A. National Framework on Safe Reuse of Treated Water

Support

National Mission for Clean Ganga (NMCG), Ministry of Jal Shakti, Govt. of India and *Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH*

Aim

To co-develop the National Framework on Safe Reuse of Treated Water (SRTW)

Highlights

- Mainstreaming SRTW and encouraging States to adopt the necessary enabling environment and actively promoting its implementation.
- Contribute to the Government's commitment to environmental sustainability and achievement of SDG 6.3 by improving water quality through increased recycling and reuse



Geographic focus

Pan India

Impacts

- **Improved water security and economic benefits**: Enables safe, predictable reuse across agriculture, industry and urban uses—reducing freshwater demand, lowering costs, encouraging investments in reuse infrastructure, and promoting **circular-economy** opportunities.
- **Strengthened public health & environmental protection**: Establishes uniform treatment standards, monitoring and risk-assessment protocols that reduce pathogen/contaminant exposure, prevent water-body pollution, and build regulatory oversight to protect communities and ecosystems.

B. Developing State policies on SRTW for the State of Uttar Pradesh and Uttarakhand

Support

NMCG and *Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH*





Aim

To develop policy on Safe Reuse of Treated Water for the state of Uttar Pradesh and Uttarakhand in line with the National Framework for SRTW

Highlights

- Review of the National Framework for SRTW and all existing National and State specific policies to align the State SRTW policy with them
- Extensive Stakeholder consultations to discuss the draft policies, potential areas of reuse, roles and responsibilities in implementing policy.

Geographic focus

Uttar Pradesh and Uttarakhand



Impact

The gradual implementation of this Policy across the State is expected to deliver transformative outcomes. Impact created would be significant for:

- **Resource security and environmental sustainability**: SRTW will enhance water security, reduce pressure on freshwater resources, improve sanitation and water quality, lower pollution, cut energy use and emissions, and foster ecological resilience.
- **Socio-economic and institutional transformation**: SRTW will generate employment, create revenue streams, boost food safety, drive innovation and technological advancement, and strengthen institutional capacity through cross-sectoral collaboration.







C. Business Models on end-uses of SRTW in Panipat and a Compendium of India and EU business Models of Safe Reuse of Treated Water



Support

NMCG and *Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH*

In collaboration with

University of Applied Sciences and Arts Northwestern Switzerland (FHNW), Switzerland and WASH Institute (India)

Aim

Implementing Safe Reuse of Treated Water (SRTW) in Panipat, India focusing on SRTW business model recommendations and the development of a SRTW Compendium considering approaches of the European Union.

Highlights

- Develop Business models for fit-for-purpose end-uses in Panipat and develop a Solution document
- Cover comprehensive range of business models for treated wastewater reuse, drawn from case studies in India and Europe.
- These models are tailored to different end-uses—industrial, agricultural, urban, environmental, and within/between industry uses

Geographic focus

India and Europe

Impact

- National Mission for Clean Ganga, Ministry of Jal Shakti (MoJS), Government of India. (2023). **Co-developed the Compendium of Business Models on Safe Reuse of Treated Water (SRTW)**.
- National Mission for Clean Ganga, Ministry of Jal Shakti (MoJS), Government of India, (2023). Co-developed the Solution Document on **Safe Reuse of Treated Water (SRTW)** for Panipat City.





Theme 4 Integrated River Basin Governance

A. Strengthening policy dialogue between India and EU for exchange of experiences and development of common approaches to global issues in the water sector

Support

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

In collaboration with

VITO, Belgium



Aim

To Strengthen policy dialogue between India and EU for exchange of experiences and development of common approaches to global issues in the water sector

Highlights

- Support India -EU Policy Dialogue by extensive review of existing policies, programs, areas of cooperation, potential collaboration
- Organize India -EU Missions and facilitate peer to peer exchange for institutionalizing River Basin Management (RBM) approach by sharing experience on successful RBM plans
- Organize India EU Water Forum and Co-creating Policy Dialogues

Geographic Focus

India and Europe

Impacts or Expected Outcomes

- **Enhance India–EU relations** through active support to cooperation activities under the India–EU Water Initiative
- Facilitate **impactful Water Sector Missions** that showcase best practices, highlight ongoing projects, and explore avenues for future collaboration.
- Promoting sustained policy alignment by analyzing India's water management landscape, identifying key gaps, and fostering long-term, results-oriented cooperation.

B. Support Ganga Rejuvenation (SGR) – Training Programme on the River Basin Management (RBM) Cycle

Support

National Mission for Clean Ganga and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

In collaboration with

AHT Global (Germany)

Aim

To support Ganga Rejuvenation Initiative by developing and implementing training program on river basin management cycle

Geographic Focus

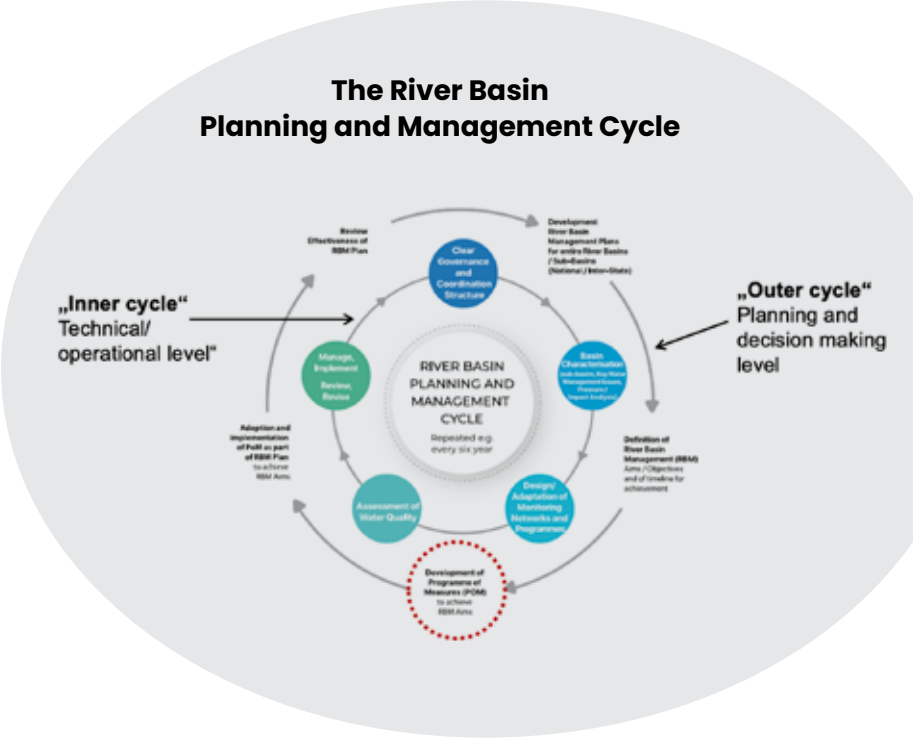
India and Europe

Impact

The project strengthened institutional capacities by introducing the River Basin Management Cycle in the Indian context, enhancing knowledge, skills, and coordination among decision-makers and practitioners for effective basin-level water governance.

Highlights

- Developing and implementing a training programme to introduce the River Basin Management Cycle as adapted to the Indian context to serve as a steering and management instrument.
- The RBM Cycle Training Series included three strategic discussion sessions and training with various Target Groups ranging from high-level decision-makers to professionals involved in the implementation of measures.



Theme 5 Innovations in Wastewater and Public Health Monitoring

A. A comprehensive study on decentralized wastewater management systems

Support

Bureau of Indian Standards (BIS), Government of India

Aim

To develop a comprehensive framework for Decentralized Wastewater Management Systems in India



Highlights

- Extensive data primary collection from survey, Key Person Interviews, consultation with technology providers, field visits to Urban Local Bodies, to bring diverse perspective
- Develop a framework for effective management of DWM systems that incorporates best practices and performance indicators
- Review existing ISO and IS standards to extract and contextualize relevant provisions for application within the Indian framework.

Geographical focus

Pan India

Impacts/Expected Outcomes

- Enhanced understanding of DWM Systems in India
- Comprehensive framework for developing IS standards for DWM Management in India







B. Monitoring of community wastewater for early signalling the spread of COVID-19 in Chennai city (2020-2021)

Geographical focus

Chennai, Tamil Nadu, India

Support

Swiss Agency for Development Corporation (SDC)

In collaboration with

SRM Institute of Science & Technology and TERI

Aim

Monitor SARS-CoV 2 viral load in wastewater samples from STPs of Chennai City, Adayar and Cooum rivers as well as groundwater samples to detect early signals

Highlights

- Quantification and analysis of wastewater samples to detect early signals
- Produced high-quality knowledge products: peer-reviewed journal article, policy brief, policy bulletin, scientific articles
- Generated strong interest among policymakers, scientists, NGOs, media, health professionals, and academia in India and globally.





Impacts

- Established wastewater-based epidemiology as a credible early warning tool to improve pandemic preparedness
- Informed national and state-level policy uptake through engagement with: Ministry of Jal Shakti, MoEFCC, Ministry of Health and Family Welfare (MoHFW), State Governments, ICMR, CSIR, NITI Aayog, Chief Secretaries of States and UTs.
- Supported knowledge exchange at national and international forums, shaping future policy recommendations: national brainstorming event (MoHUA) and international knowledge exchange event [GIZ and NMCG (MoJS)].



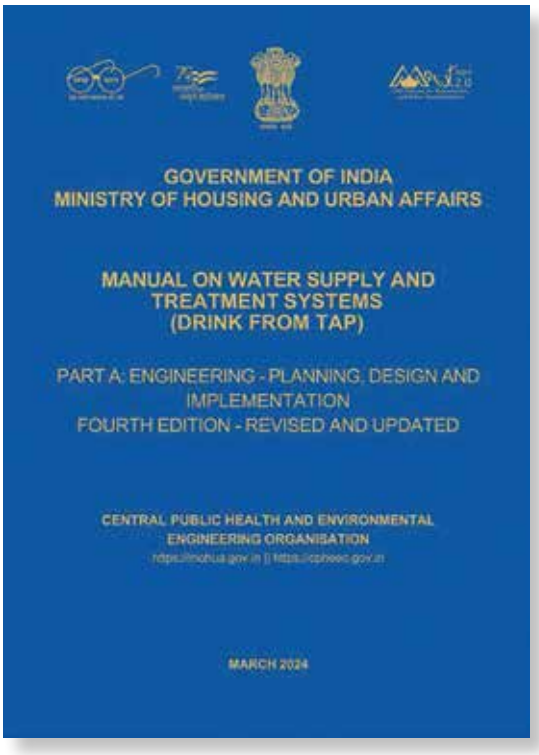


Theme 6 Urban Water Management

A. Development of e-modules for dissemination of Water Manual and developing framework for an Urban Water Association (2024-2025)

Support

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH



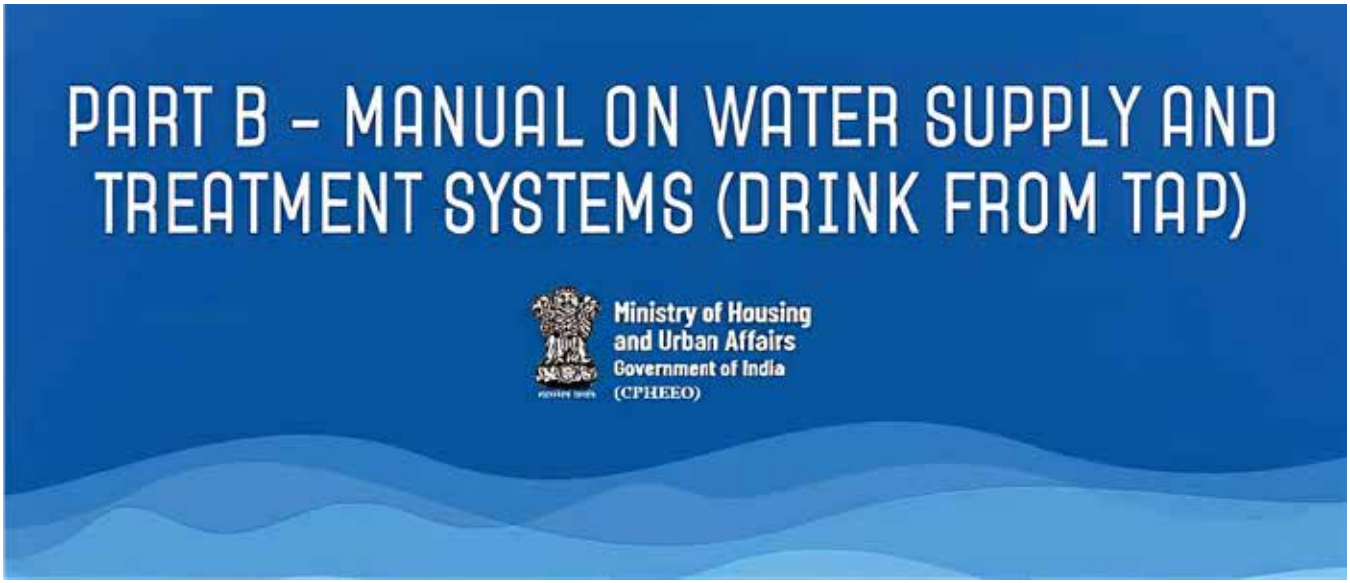
Aim

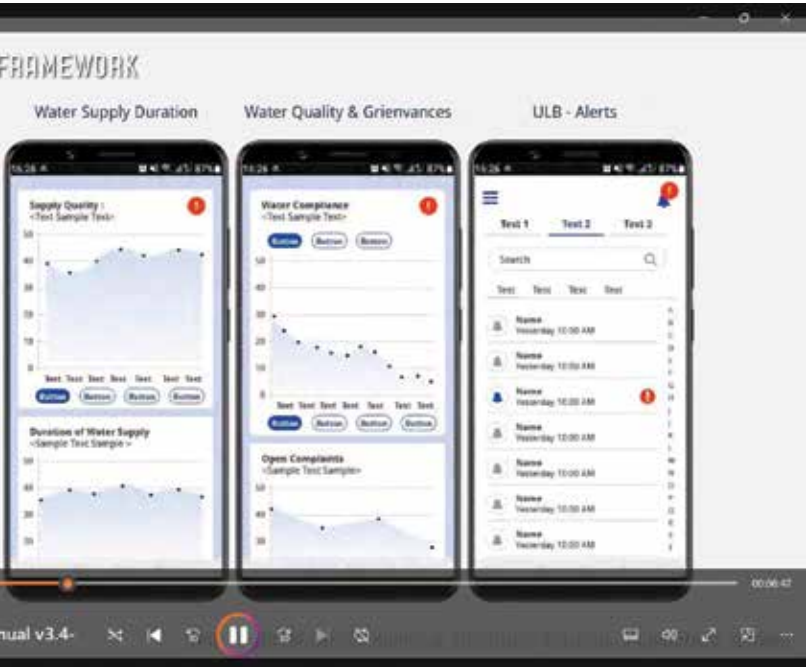
Disseminate key topics from the "Revised Manual on Water Supply and Treatment Systems (**Drink from Tap**) and develop a framework for establishing an Urban Water Association (UWA), aligning with the national priorities (India) and international best practices.

Highlights

- Developing and disseminating key features of revised CPHEEO water manuals through accessible, interactive e-modules that include videos, infographics, and case studies in regional and national workshops
- Regional and national level webinars to organise stakeholder consultation for brainstorming and deliberating with the expert committee, officials from water resources department and related government and nongovernment institutions to develop a robust framework for "Urban Water Association".







Geographical Focus

Pan India

Impacts/Expected Outcomes

- **Enhanced knowledge dissemination** through interactive e-modules (videos, infographics, case studies) and regional/national workshops based on revised CPHEEO water manuals.
- Improved stakeholder capacity through blended and inclusive learning approaches
- Strengthened knowledge exchange at national and regional levels
- Institutionalized learning and peer-topeer collaboration for sustainable water management

B. Water Sensitive Cities and Partnerships (2024-2025)

Support

The World Bank

Aim

Technical support in key areas related to water sensitive cities, gender aspects, jobs and support partnerships and coordination with stakeholders in India.

Highlights

- Assessment of the Drink-from-Tap scheme of Odisha, other schemes of Rajasthan and Telangana
- Riverfront development of major rivers of Odisha and Situational analysis reports, Assessment reports.

Geographical Focus

Odisha, Rajasthan and Telangana

Impacts/Expected Outcomes

Enhanced knowledge on water sensitive urban design in the states of Odisha, Rajasthan and Telangana



Innovation

Leveraging data and research-led policy insights

We are specializing in innovation for data-driven policy by integrating research, data analysis, and strategic advocacy to inform more effective and impactful public policies. Our approach leverages rigorous evidence, tailored expertise, and modern analytical tools to address complex policy challenges, especially within the context of environmental and social development.





What Sets Us Apart

Our firm acts as a knowledge creator, customizer, and connector, drawing on both global research and local insights to customize policies that are both innovative and practical.

Our methodologies emphasize a research-led, evidence-based approach, ensuring policies are grounded in thorough data analysis rather than assumptions or anecdotal evidence.

Our work includes creating advocacy materials, policy briefs, discussion papers, and training modules based on rigorous research, aiming to stimulate informed debate and lead to actionable policy recommendations

Sustainability



Mu Gamma's commitment to contributing to the UN-SDGs.

Mu Gamma is dedicated to advancing sustainability by contributing meaningfully to several United Nations Sustainable Development Goals (UN-SDGs). Through developing precise targets, implementing sustainable strategies, and fostering cross-sector collaborations, Mu Gamma ensures that its operations effectively support impactful progress toward these global goals.



04

People & Culture



04 People & Culture

The Culture of Connection

Mu Gamma blends knowledge, innovation and out-of-the-box ideas. From India, Canada, the United States, United Arab Emirates (UAE), our colleagues share vibrant snapshots of workspaces that reflect our dynamic culture, proving that distance fuels creativity, connection, and a truly global mindset.



Team Voices



Building Mu Gamma brick by brick has been an exciting experience and a rewarding journey. The PASSION of our multidisciplinary team, striving towards excellence in every PROJECT we undertake, is truly remarkable. Executing each project with PRECISION and witnessing its PERVASIVE impact is our IKIGAI. Our PARTNERS, PROMOTERS, and PEOPLE have been instrumental in shaping Mu Gamma into what it is today.

– Girija K Bharat



It has been an incredible journey of learning and engagement. For me, it has been a personal one, as I have grown with MGC, translating ideas into action and impact, and contributing to meaningful change.

– Avanti Roy-Basu



Joining MGC as a fresher, I found more than a workplace, I found a community. Growing together, sharing knowledge, and supporting one another made this journey truly enriching and enduring." Proud to be part of this incredible decade.

– Kriti Akanksha



My journey with MGC has been truly a meaningful one. Each step has shaped me, given me a space to grow, create and connect. It's a chapter I will always cherish. I am grateful to have been part of MGC's journey filled with purpose, learning, and meaningful impact alongside an inspiring team.

– Anagha Krishnan



Being part of Mu Gamma Consultants for the past six years has been an inspiring journey of growth, learning, and collaboration. Seeing us reach the ten-year milestone is truly special. It's a privilege to be part of a team that values excellence and people in equal measure. Congratulations to everyone who made this possible!

– Manisha Jain



At Mu Gamma, I'm empowered to ideate and brainstorm without limits, seeing ideas transform into reality. I deeply value our commitment to strong ethics and sustainability, always with a generous splash of humor. It's truly inspiring to learn from incredible women who tackle every responsibility with such meticulous dedication; this can-do, noego space celebrates our collective journey to learn, grow, and evolve.

– Neha Lakhwan



Being part of Mu Gamma's amazing journey has been incredibly rewarding—filled with continuous learning, unwavering support, and meaningful connections. Grateful to grow with such an inspiring team and purpose. This place has a unique magic that helps you achieve the perfect balance between personal and professional life.

– Sonia Grover



Advisor's Messages...

Celebrating a Decade of Dedication and Impact



K Rajagopal

As we mark the 10th anniversary of our organization, Mu Gamma Consultants Private Limited, I want to take a moment to express my heartfelt appreciation for this incredible journey.

Being part of Mu Gamma has been both an honour and a privilege. Over the past decade, Mu Gamma has grown not just in numbers, but in strength, purpose, and impact. It has been truly inspiring to witness the passion, resilience, and collaboration that have defined Mu Gamma's culture and driven its success.

The best part of the organization is its human asset – the team is dynamic, assertive, and aggressive, and remarkably united - qualities that have consistently propelled the Mu Gamma forward. This milestone of successfully completing a decade is a testament to the collective efforts of every individual who has contributed to MGC's mission. MGCians are really magicians and they are really the reason behind MGC's success.

I deeply respect and salute Dr. Girija Bharat for her unwavering commitment, her belief in her vision, and the camaraderie that makes Mu Gamma truly special. Her leadership has been a guiding light, and her dedication continues to inspire the team and Mu Gamma's stakeholders.

As we celebrate this milestone, let us also reflect on the values that have brought us here – integrity, innovation, and inclusiveness. Each challenge Mu Gamma has overcome and each success it has achieved has been a result of the team's untiring hard work and relentless pursuit of excellence. The awards bestowed on Dr Girija and the organizations is evident of its excellent performance.

Advisor's Messages...

I am glad that Mu Gamma's efforts and performance have been recognized by many organizations who have become Mu Gamma's partners. It is also time to thank and acknowledge the support of Mu Gamma's sponsors, partners, and well-wishers who have placed their trust in the organization and walked alongside the organization in this journey.

Let this anniversary not just be a celebration of the past, but a stepping stone to an even brighter future. May Mu Gamma continue to grow, evolve, and make meaningful contributions to society and the world at large.

My best wishes to Dr. Girija Bharat and the entire team for continued success and achievements in making the society and the world a better place to live."

K Rajagopal
Advisor



Dr Joseph X Ravikumar

I commend Manish, Girija, and their colleagues at Mu Gamma for the exemplary work. Rather than the run-of-the-mill work, they have chosen to tread paths not taken by others. Their work is focused on emerging areas of concern, and their work is cutting-edge. Their guidance documents are well respected and have earned them a name and respect in the watsan sector. It has been a pleasure working with them and I wish them greater laurels in the coming years.

Joseph X Ravikumar
Advisor

Advisors Messages...



Shyam Dave

Glad to learn that Mu Gama Consultants (MGC) is celebrating a decade of its impactful work, that has been very well and strategically documented in a coffee table book format and being presented to the key stakeholders. It is indeed an immense moment of pride to witness and see the wonderful development journey, a testament to an unwavering commitment to fostering green development and enhancing the quality of life for communities. Since the inception, MGC team have strived to blend global knowledge with local contexts, creating sustainable solutions that resonate deeply and endure meaningfully.

This book encapsulates the milestones, challenges, and triumphs of the journey as an ISO 9001-certified organization. It reflects the collective efforts of the dedicated professional team, partners, and the communities they serve, who have been integral to the mission of promoting sustainable progress. Each page tells a story of innovation, resilience, and shared purpose, highlighting key achievements that have shaped the path over the past ten years.

As MGC marks this decadal milestone on November 28, 2025, I look forward to continuing its pursuit of excellence, driven by its vision to create better, greener future. May this book inspire reflection, spark new ideas, and reaffirm the shared commitment to transformative change.

With gratitude and optimism,

Shyam Dave
Advisor

Advisor's Messages...



Venkatesh Raghavendra

Hearty Congratulations to Mu Gamma on its tenth anniversary. While many quality of life indicators are trending south due to a variety of factors, Mu Gamma has quietly dove into helping reverse these trends through solid research and awareness building. It has contributed to policy refinement, demystifying scientific principles into relatable ideas and enabled action for positive change. May the contribution of Mu Gamma towards global betterment and human well-being continue to grow exponentially over the years to come.

Venkatesh Raghavendra
Global Social Entrepreneur and Philanthropy Advisor
Washington DC



Rajnish Kumar

10 years may seem like a tiny drop in the ocean of time for earth, but it is no longer so in a world facing intensified effects of climate change and continued loss of natural habitats due to deforestation, pollution, and ecosystem destruction. Mu Gamma has in the last 10 years since inception, added immense value towards creating a sustainable environment and society. As we look back with pride at what Mu Gamma has achieved so far under the visionary leadership of Dr Girija Bharat, we are humbled by the realization that our environment continues to face multiple challenges and Mu Gamma being in the fore front of environment research, must play a key role to mitigate these through policy support, research, community action, and education."

Rajnish Kumar
Director, Finance

Behind the Scenes







Where ideas take shape, teamwork thrives, and everyday moments build our extraordinary journey together. It's in these unseen moments—brainstorms, laughter, and quiet dedication— that the true spirit and strength of Mu Gamma shines through.

Equal Roles

Celebrating women leaders at Mu Gamma means honoring the strength, resilience, and vision they bring every day. Here, inclusion is not just a value but a lived experience—where every voice matters, opportunities are equal, and leadership is shared. Together, we foster impact, spark innovation, and build a future that empowers all.









05

Our Collaborators



05 Our Collaborators

Partner Spotlights



Mr Sujoy Mojumdar

Senior WASH Specialist
UNICEF India

I extend my warm congratulations to Mu Gamma Consultants on completing ten successful years of service and excellence.

Over the past decade, Mu Gamma has established itself as a trusted agency in advancing sustainable development, delivering high-quality technical support, and fostering innovation across sectors.

In the domain of water, sanitation and hygiene (WASH), where evidence-based solutions and context-specific approaches are critical, Mu Gamma's

contributions have been noteworthy. Their ability to combine technical rigor with practical insights has supported governments, institutions, and development partners in strengthening systems and scaling impactful initiatives. Such dedication has not only enriched sectoral knowledge but also enhanced the effectiveness of programmes aimed at improving lives and building resilience.

Over the years, I have deeply appreciated Mu Gamma's professionalism, integrity, and commitment to excellence. Their work reflects a rare balance of technical expertise, responsiveness, and a strong sense of purpose. These qualities have positioned Mu Gamma as a credible institution in the development landscape.

On this milestone occasion, I wish Mu Gamma continued success and growth. May the next decade further strengthen their role as a catalyst for positive change and contribute to the vision of a more equitable and sustainable future.

Partner Spotlights



Mr Satish Sinha

Associate Director

Toxics Link, India

Hearty congratulations and best wishes to Girija and all staff members of Mu Gamma Consultants on having completed a decade as environmental experts and for bringing out this magnificent Coffee Table Book to mark this important milestone in their journey. I have had the privilege of watching their journey from close, also partnering with them on multiple occasions. The organisation has grown in strength and evolved as a professional and responsible entity, making impactful contributions on issues of chemicals, water and plastics management. I have deeply admired the credibility of data and information on complex chemicals issues generated by the organisation and contribution in shifting the policy landscape of environmental management and public health. These achievements are noteworthy and a testimony of dedication, hard work, cohesive team effort and a focused and positive leadership.

I look forward with delight to working closely with Mu Gamma in future on issues of common interest, driving sustainability and also making a difference in the lives of people.

Here's to 10 remarkable years and many more ahead! Keep up the good work.

Partner Spotlights



Ms Paramita Datta Dey

Head (Resources and Waste),
National Institute of Urban Affairs (NIUA), India

It gives me immense pleasure to congratulate Mu Gamma Consultants on completing ten remarkable years of dedicated work and impact. Over the past decade, Mu Gamma has grown into a trusted partner for governments and development institutions alike—bringing technical depth, practical wisdom, and a genuine commitment to sustainability.

In the complex world of urban development, water, and sanitation, Mu Gamma has stood out for its clarity of purpose and ability to turn ideas into action. What makes their work truly special is not just the rigour of their analyses or the quality of their solutions, but the thoughtfulness and empathy that underpin every engagement. Having known Girija and her team, I have always admired their professionalism, patience, and deep sense of purpose. Girija's leadership—quiet yet firm, visionary yet grounded—has been central to shaping Mu Gamma's credibility and culture. She embodies the balance of intellect and humility that defines impactful leadership.

As Mu Gamma celebrates this milestone, I wish the entire team continued success in their journey ahead. May the next decade bring new partnerships, wider influence, and even greater contributions toward a more sustainable and equitable urban future.

Congratulations once again to Girija and the Mu Gamma family on this inspiring ten-year journey!

Partner Spotlights



Dr Luca Nizzetto

Chief Scientist,
Norwegian Institute for Water Research (NIVA),
Norway

On a white, snowy February day in 2011, while I was working in my office in Oslo, an email quietly appeared in my inbox. It was the first message I'd ever received from India, sent by Dr. Girija Bharat from the TERI Institute in Delhi. That email was the start of a journey that blossomed into a lasting professional partnership and friendship. Over the years, Girija's bold move from TERI to founding Mu Gamma transformed a fledgling startup into a cornerstone of India's environmental research landscape. Mu Gamma now stands as a reality that supports high-quality research and delivers tangible impacts for India's development.

As Mu Gamma celebrates its 10th anniversary, I'm delighted to share this story and extend my best wishes for many more years of success. And I hope I'll continue to be part of this story, looking forward to many more research adventures and positive impacts that we can generate together.

Partner Spotlights



Prof Christopher Hugi

Head of Sustainable Resources Management Group
University of Applied Sciences and Arts Northwestern Switzerland, Switzerland

For a decade already, Mu Gamma has built partnerships that turn vision into impact. The fruitful collaboration of the University of Applied Sciences and Arts Northwestern Switzerland with the Indian consultancy led by Girija, a truly inspiring leader, and her colleague Nathaniel, stands as a milestone in our journey toward sustainable water management.

Together we explored how to transform water scarcity into opportunities. From colourful water tankers crawling along slowly through busy streets to high-tech treatment plants where every valve and membrane speaks of innovation, we witnessed the challenges to turn good ideas into realities.

At the lakeshore, where floating intake systems draw life back into the city, we were reminded that technology alone is not enough – it is people like Girija and her team who make change possible. Their commitment to reuse, efficiency, and equitable access to water embodies the spirit that defines Mu Gamma.

This partnership taught us that water connects cultures, disciplines, and dreams. What begins as a drop of cooperation can become a current of transformation and lasting friendship – one that carries both our organizations forward into the next decade we are very much looking forward to shaping together.

Happy Birthday Mu Gamma, all the best for the future and miss our wonderful Indian meals together.

Partner Spotlights



Dr Jonathan Demenge

Research Policy Advisor
Head of Cooperation 2020-2024,
Swiss Agency for Development and Cooperation (SDC), Switzerland

Back in 2020, in the middle of the COVID-19 Pandemic, delivering an early detection system to identify virus loads in urban communities that would be affordable and could be deployed at scale was the need of the hour. Mu Gamma rose to the challenge, testing and deploying wastewater-based epidemiology solutions in Chennai with scientific expertise, commitment, pragmatism and the support of the Swiss Agency for Development and Cooperation (SDC). Mu Gamma then successfully advocated for the method's use in all states and territories across India, demonstrating its efficacy. Working with Mu Gamma's dedicated and capable team has been a privilege, and on this 10-year anniversary I would like to congratulate and thank them for their commitment to communities and environmental causes.

Partner Spotlights



Dr Paul Campling

International Business Development Manager VITO, Belgium

I would like to extend my warmest congratulations to Mu Gamma Consultants on reaching this 10th Anniversary milestone. I've only had the pleasure of collaborating with Girija and Mu Gamma since the beginning of 2025, but it was immediately clear, when we first met, that there is a strong ethos of hard work and dedication in the team. It was also clear that over the first 10 years Mu Gamma has built up an important expertise and track record in delivering capacity building, policy advocacy, and specialized advisory services in the sustainability and development space.

I very much look forward to collaborating further with Girija and her colleagues, in the years to come, to deliver environmentally sustainable and socially inclusive development strategies.

On this 10th Anniversary, I wish Mu Gamma further success and growth. I am sure that the next 10 years will further establish Mu Gamma as an important collaborative partner in the development landscape.

All the very best!

Partner Spotlights



Mr Simon Tilleard

General Manager- International
Alluvium Group and General Manager
Alluvium Consulting Australia

The Alluvium Group warmly congratulates Mu Gamma on a decade of innovation, leadership, and impact. Our partnership has been defined by shared values, creative collaboration, and a commitment to delivering meaningful outcomes for communities and the environment.

Mu Gamma's Managing Director, Dr Girija Bharat, has played a pivotal role in this journey—not only guiding MuGamma's vision with clarity and purpose, but also contributing her expertise as a Non-Executive Director with Alluvium's Indian subsidiary. Her insight, integrity, and systems thinking have enriched our work and strengthened our global perspective.

Congratulations to Girija and the entire Mu Gamma team on this milestone. It's been a privilege to walk alongside you, and we look forward to many more years of collaboration!

Partner Spotlights



Dr. Paromita Chakraborty

Professor & Head, REACH
SRM Institute of Science & Technology,
Chennai, India

A Scientist's Meditation on Time, Toxins, and Tomorrow

"Every molecule hums a memory — a testimony to our brilliance, our greed, our recklessness. The planet listens in silence, archiving every trace we leave behind — in air, water, and bone. To be a scientist is to walk that fine line between creation and aftermath — to confront what refuses to vanish and decode the stubborn chemistry of consequence. At Mu Gamma Consultants, they carry this belief forward — that progress is not in cleanup, but in foresight, accountability, and design. And yet, in every toxin lies a truth: that creation and destruction share the same spark — it is our wisdom that decides which burns longer."

Partner Spotlights



Dr Smita Mohanty

Director, LARPM,
Central Institute of Petrochemicals Engineering & Technology, Bhubaneswar, India

It gives me immense pleasure to extend my heartfelt congratulations to Mu Gamma on completing 10 remarkable years of impact and inspiration. As the Principal Director and Head of CIPET: SARP–LARPM, Bhubaneswar, I have had the privilege of collaborating closely with the Mu Gamma team under the India–Norway INOPOL Project. Our shared journeys, from Gujarat to Tamil Nadu for sampling micro and macro plastics, exchanging ideas, and learning from one another, have been truly enriching. I deeply value the professionalism, dedication, and support that the team has consistently demonstrated.

Mu Gamma stands out as a collective of deeply committed professionals with rich experiences spanning The World Bank, United Nations, Indian Administrative Service, CSIR, TERI, and other globally respected institutions. Under the dynamic leadership of Dr. Girija Bharat who is an exemplary scientist, thought leader, and recipient of numerous national and international accolades, the organization continues to champion sustainable social and economic development with clarity, compassion, and vision.

As you celebrate this milestone, I extend my best wishes for your continued growth and success. I look forward to many more years of meaningful collaboration, shared learning, and collective effort toward reducing plastic and chemical pollution and building a more sustainable future for India.





06

Thought Leadership



06 Thought Leadership

Driving Research, Policy, Practice, and Impact

Over the past decade, MGC has been a leading voice in the sustainability and environmental governance sectors. We influence transformative dialogues and drive significant outcomes by combining evidence-based research, policy advocacy, and multi-level capacity building. Our thought leadership continues to evolve, not just as a voice of knowledge and expertise, but as a catalyst for systemic change.



Featured highlights

- Development of national/state action plans, roadmaps, and strategy reports that inform policy and sectoral programming
- Peer-reviewed publications and landmark research on PFAS, POPs, plastics, water reuse, WASH, gender, and climate
- Thought leadership at global/national knowledge forums – Stockholm World Water Week, World Sustainable Development Summit (WSDS), India Water Week, and World Bank/UNEP/GIZ platforms
- Capacity building of government agencies, regulators, industries, civil society organizations, and community stakeholders through structured training and technical knowledge exchanges

Key takeaways

Key Takeaways from MGC's Knowledge Contributions

- ***Managing Emerging Contaminants***: MGC leads research and policy advocacy on managing emerging contaminants, such as endocrine disrupting chemicals (EDCs) and persistent organic pollutants (POPs). Our work combines rigorous exposure assessments with actionable recommendations, focusing especially on vulnerable populations like



informal workers (especially women), and children. As the India lead for the Indo-Norwegian INOPOL-project and a core partner in Project EDIFY, we are generating critical knowledge on reducing marine litter and promoting value chain transparency in plastics and POPs management, enhancing knowledge bases on food and water-based exposure to EDCs, and supporting gender-responsive policy frameworks.

- **Addressing PFAS by Bridging Science and Policy**: We recognize the urgency of regulating 'per- and polyfluoroalkyl substances (PFAS) in drinking water sources in India' through a robust science-policy interface. Our policy brief on PFAS in India and ongoing dissemination of the INOPOL project findings help to elevate stakeholder awareness, enhance institutional coordination, and push for science-based regulatory action in India.
- **Advancing Plastics Circularity**: MGC's work on plastics is rooted in circularity, systems thinking. As part of a Research Council of Norway project, we are conducting multi-scale analyses of health and environmental dimensions of plastic recycling in India. Our engagement with global frameworks, such as the FAO's Code of Conduct on agricultural plastics and the ASAP International Knowledge Hub on marine litter, has helped mainstream circularity in plastic governance. In the past, we have spotlighted issues like COVID-19

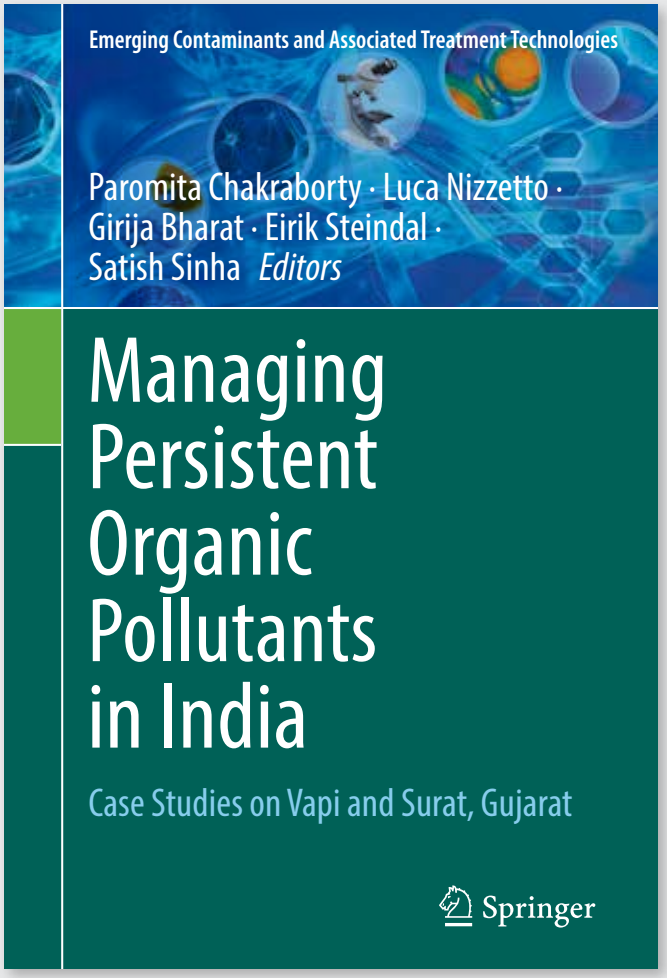


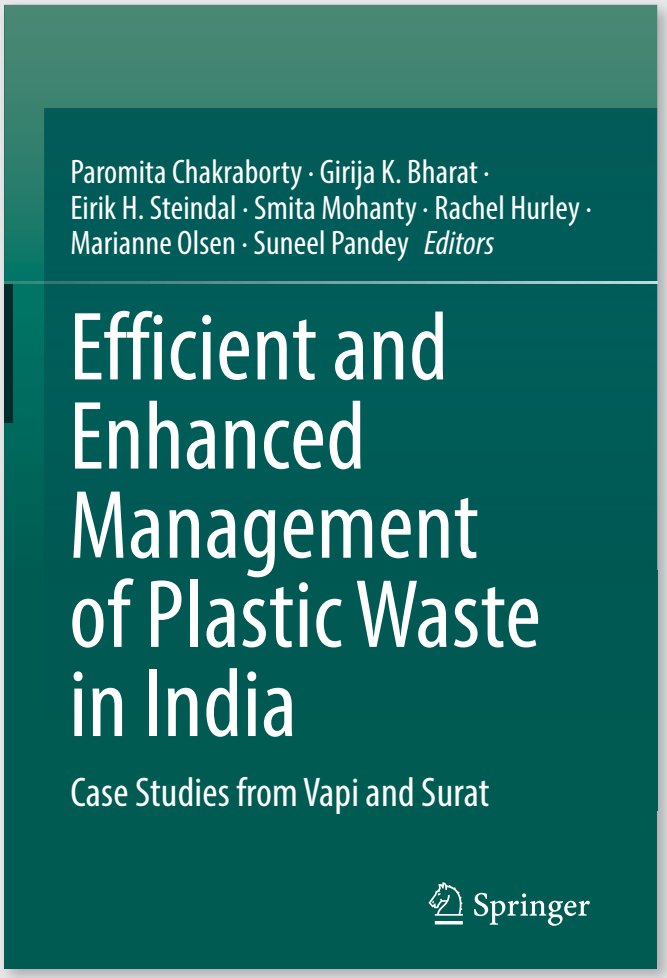
pandemic's impact on informal waste workers, advocating for just and inclusive value chain models.

- **Strengthening WASH Systems**: Water, Sanitation, and Hygiene (WASH) has been a cornerstone of our work, and our contributions span the research and policy continuum, from designing national and state-level guidelines and action plans to developing e-learning modules for dissemination of the Water Manual and frameworks for decentralized wastewater management systems. Partnering with institutions like BIS, GIZ, the World Bank, USAID, UNICEF and ADB, we have advanced urban and rural WASH solutions, promoted hand hygiene behavior change, and supported integrated WASH planning for different states of India.
- **Pioneering Safe Reuse of Treated Water (SRTW) Policy Formulations**: MGC played a key role in formulating India's National Policy Framework on SRTW, which was unveiled by the Hon'ble Prime Minister of India. Our subsequent work under the India-EU Water Partnership includes developing a national SRTW Compendium, scalable business models, and State Policies for Uttar Pradesh and Uttarakhand, charting pathways for sustainable and safe reuse of treated water.
- **Climate Resilience**: Climate resilience is embedded in all our projects, especially those on water research and governance. We have developed training content on climate adaptation in water management for all Urban Local Bodies in India (for NIUA and UNIDO); Synthesizing City Climate Plans under Accelerating Climate Action through the Promotion of Urban Low Emission Development Strategies (Urban-LEDS II) and developing case studies to showcase climate action by cities in India and Bangladesh; and published a Discussion Paper for India Water Week -2024, demonstrating our commitment to aiding institutions with the knowledge and tools to adapt in the face of a changing climate.

Co-developed

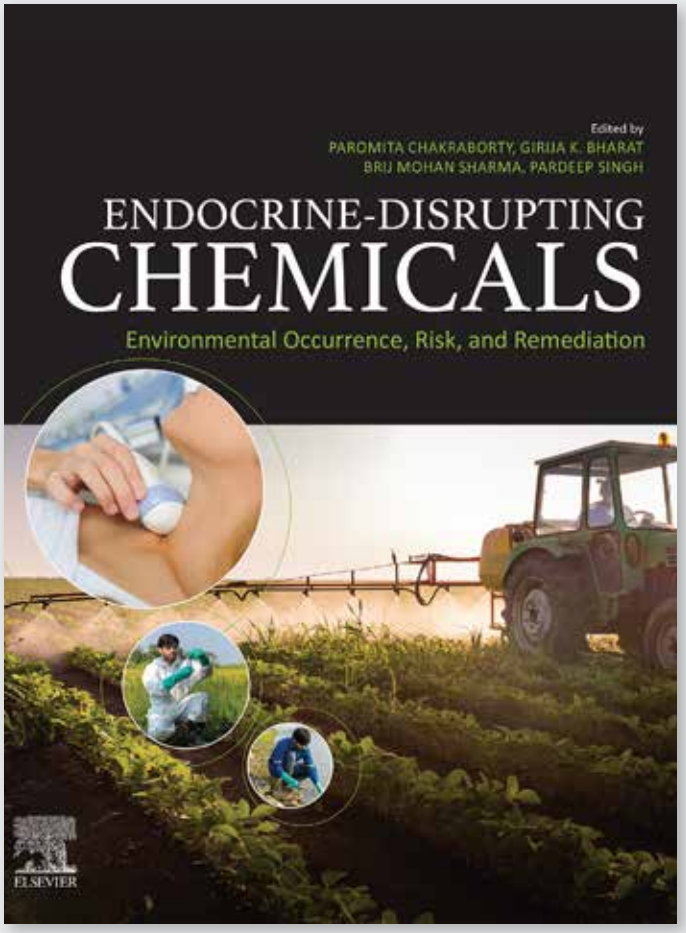
Publications

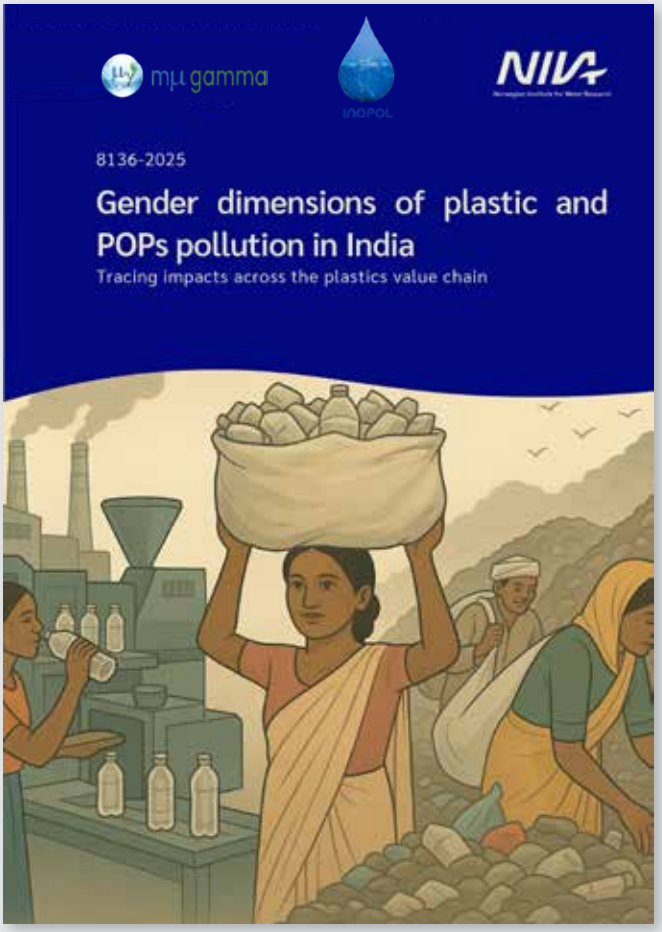




Co-developed

Publications





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Publications





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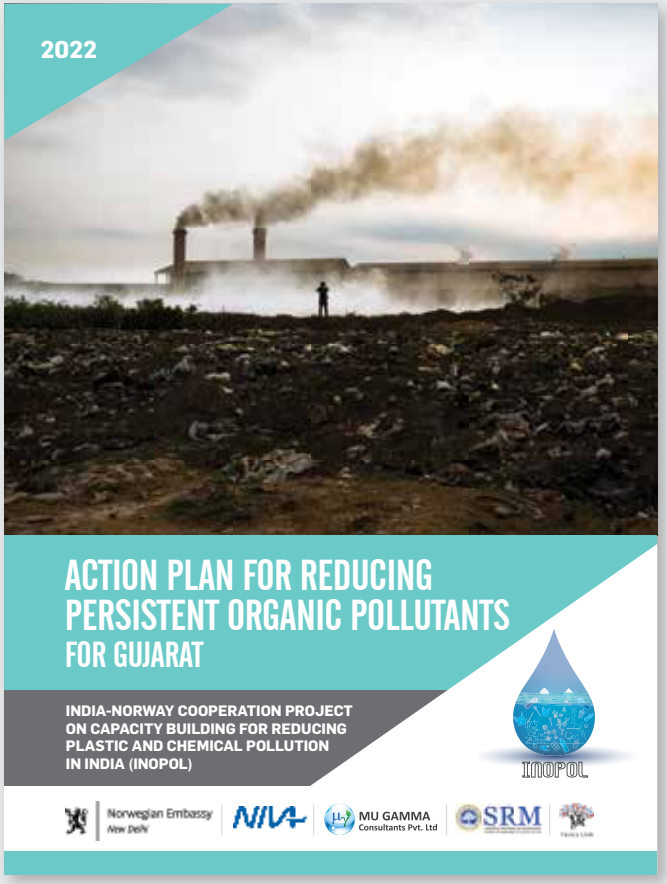

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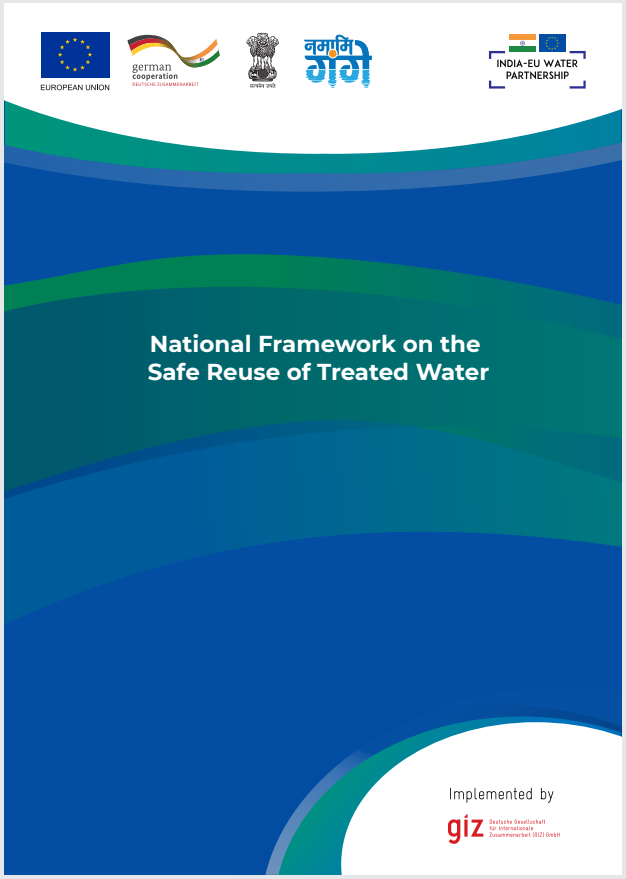
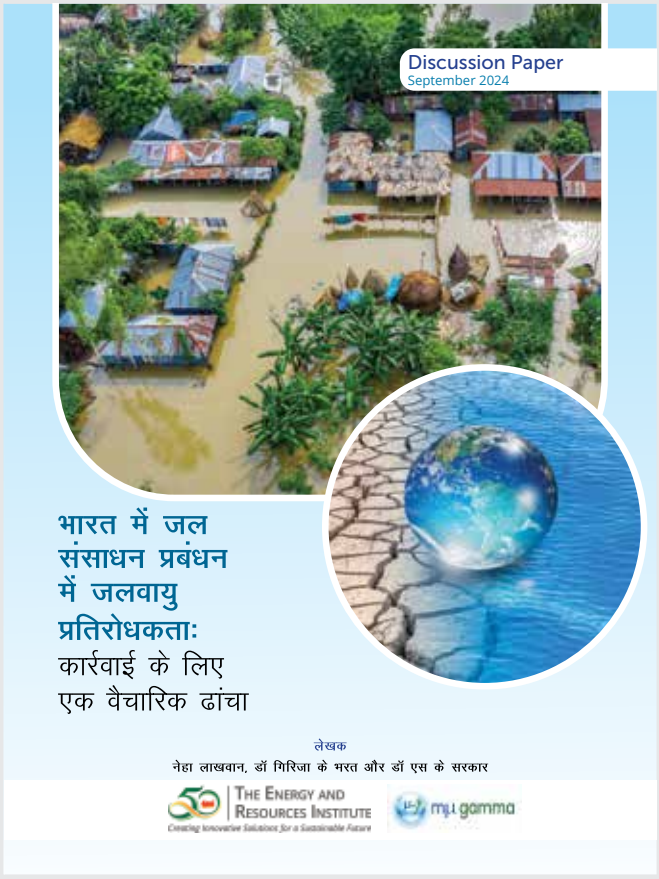
Publications







07

Looking Forward



07 Looking Forward

Vision 2035 of Mu Gamma

We step into the next new decade with humility and motivation. The challenges and opportunities that lie ahead are many – the AI revolution, climate uncertainty, urban transitions, emerging contaminants, future pandemics – all of which seek innovation and sustainable leadership at its core.

In essence, Mu Gamma's **Vision for 2035** is a roadmap that embraces positive change:

- Scaling impact by expanding our reach in water, waste, and climate solutions through Artificial Intelligence (AI)-enabled tools, predictive analytics, global collaborations, and grassroots partnerships.
- Utilizing AI to forecast pollution pathways and exposure levels, optimize resource reuse, model climate risks, and support evidence-based decision-making. Our goal is not to use AI as just a tool, but a reliable medium for working with governments, businesses, and communities.
- Strengthening our role as thought leaders in environmental and water governance by influencing policies at all levels, as well as developing management frameworks and action plans, based on scientific data-driven insights.
- Creating and innovating adaptive solutions that combine scientific research, technology, and policy, to ensure resilience and inclusivity.
- Empowering our team, encouraging a younger workforce, and building a diverse group of changemakers who are proficient both in sustainability and digital intelligence.

Voices of the Future

The core of Mu Gamma lies in our people. Younger colleagues bring in fresh perspectives and determination, as evident from these reflections:

"Mu Gamma blends science, technology and innovation. It is inspiring to be part of a workspace that constantly evolves."

Anagha Krishnan, Research Scientist



"Mu Gamma is not just a workplace - it is a space that nurtures curiosity, a limitless platform where the highest form of human skill, rationale, meets the rarest form of talent, heart. It constantly nudges me to pause and ask: How does this alter the world? Can it make it better?

Every day, I draw inspiration from my colleagues, who gracefully juggle personal responsibilities while delivering professional excellence—never losing sight of their individuality, never dimming their unique personality. Together, we create not only outcomes but also meaning, weaving purpose into practice."

Neha Lakhwan, Research Scientist

Our Pledge

As we chart the course for the next decade, we make a pledge to:

- Stay committed to our efforts to promote sustainability and inclusivity.
- Put research, policy, capacity building, and responsible AI at the forefront of our work.
- Build collaborations that cut across boundaries, sectors, and generations.
- Develop a workplace culture that values growth, innovation, and general well-being.

Mu Gamma is dedicated to walking this path with responsibility and hope for a better world.



Viksit Bharat 2047

Viksit Bharat envisions an India that is:

- Economically prosperous and self-reliant (*Atmanirbhar*),
- Technologically advanced,
- Socially equitable and inclusive,
- Environmentally sustainable,
- And globally respected.

Through its research, publications, and training programs (e.g., Microplastics, Riverine pollution, River Basin Management Cycle, SRTW business models), Mu Gamma can:

- Act as a **national think tank** on water reuse, pollution control, and environmental AI.
- Provide **technical advisory and training** to central/state government officers in alignment with Viksit Bharat's *Capacity Building Commission*.
- Lead **youth innovation challenges** on green technologies in partnership with NITI Aayog's Atal Innovation Mission.

Mu Gamma's **Vision 2035:** expanding AI-enabled water and climate solutions, empowering youth, and building a diverse workforce aligns with the 2047 milestones.

MGC can serve as a **"knowledge-to-impact catalyst"** by:

- Creating a *National Environmental Data & Policy Hub* integrating AI, citizen data, and research.
- Supporting *district-level climate resilience and water reuse roadmaps* under NITI Aayog's Viksit Bharat strategy.

Partnering in India's *Mission LiFE (Lifestyle for Environment)* to mainstream behavioral change.



ABOUT US

We are an ISO 9001: 2015 recognized research and consultancy organization specializing in WASH, water resources management, waste management, climate change, and sustainable development. We develop leading-edge advocacy documents, capacity-building programs, and conduct global outreach events, enhancing community quality of life through eco- friendly solutions by leveraging and adapting international best practices.

Our team includes former staff members from The World Bank, the United Nations, the Indian Administrative Service, CSIR, reputed institutions and universities.

We are a registered consulting firm with affiliated operations in India, Canada and the UAE.



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