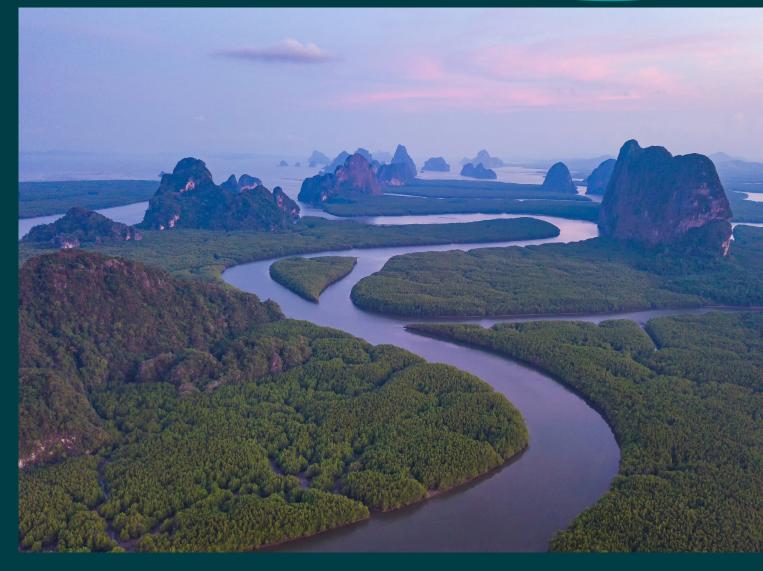
# **CLEAN** RIVERS

Navigating Currents of Change: The Intersection of Philanthropy and River Conservation

White Paper | October 2024



## Table of Contents



1. Foreword	03
2. Executive Summary	04
3. Introduction	06
4. The Urgency of Addressing River Plastic Pollution	
5. Philanthropy's Role in River Rejuvenation & Conservation	16
6. Donor Alignment Gap	21
7. Community Engagement	22
8. Private Sector Engagement	24
9. Transitioning to a Circular Economy	25
10. Conclusions and Key Recommendations	26
11. References	



## 1. Foreword

Clean Rivers is a non-profit organisation committed to combating river plastic pollution. Our vision is a world where waterways are free from plastic waste and communities are empowered by sustainable circular economies. This white paper explores the role of philanthropy in making it possible.

Clean Rivers is a global non-profit organisation dedicated to tackling the millions of tonnes of plastic waste entering the world's oceans from river systems every year. To rejuvenate and conserve rivers, we must adopt a holistic approach that leverages philanthropy to drive technological innovation and support community engagement to achieve these objectives.

Furthermore, innovative solutions are emerging. Innovators are designing advanced filtration systems that capture plastic waste before it can reach the ocean. Start-ups are turning collected river plastics into building materials, creating a circular economy that cleans the rivers and provides sustainable business opportunities.

Deploying philanthropic capital can act as a catalyst in alleviating and solving some waterway stress. Despite the critical need for intervention relative to other philanthropic causes, a study showed that only 3% of philanthropic capital in the USA is allocated to environmental causes. Understandably, different regions have different donor attention focuses. However, broadly, the allocation of capital towards environmental causes is still relatively low and significantly smaller concerning river conservation on a global scale. This highlights a significant funding gap; redirecting philanthropic capital to address river pollution is an urgent issue that needs immediate attention, as well as the potential headroom to accelerate river conservation and the reduction of pollution from plastics.

Philanthropy is critical in the fight against plastic pollution and river restoration. The river's story teaches us that we can revive our waterways' health through collaboration and commitment.

As you read this white paper, envision the river as a body of water and a symbol of life and connection. Our rivers' health reflects our environmental stewardship and commitment to future generations.



Roundtable discussion hosted by Clean Rivers at the 2024 Asian Venture Philanthropy Network (AVPN) Global conference. The discussion highlighted philanthropy's crucial role in combating riverine plastic pollution and enhancing ecosystem resilience. It also explored synergies with technological innovations and stakeholder collaboration.

# 2. Executive Summary

**Plastic pollution in rivers is a critical environmental issue** with far-reaching impacts on biodiversity, public health, and economies worldwide. Clean Rivers aims to address this urgent problem through a comprehensive strategy that combines philanthropy, community engagement, corporate responsibility, and international collaboration.

Philanthropy is not just a player but a pivotal force in funding research and development, supporting innovative technologies, and empowering local communities to participate in conservation efforts. By leveraging philanthropic capital, we can drive significant progress in river conservation and the transition to a circular economy.

Community engagement is essential for effective river conservation. Local knowledge, volunteer efforts, and educational campaigns help raise awareness and foster a sense of stewardship among communities. Examples of successful community-led initiatives demonstrate the power of collective action in addressing river pollution.

Corporate engagement through Corporate Social Responsibility (CSR) initiatives and adopting circular economy principles can significantly reduce plastic waste and create sustainable business opportunities. By aligning their practices with environmental goals, companies can enhance their brand value, reduce waste management costs, and contribute to developing valuable by-products.

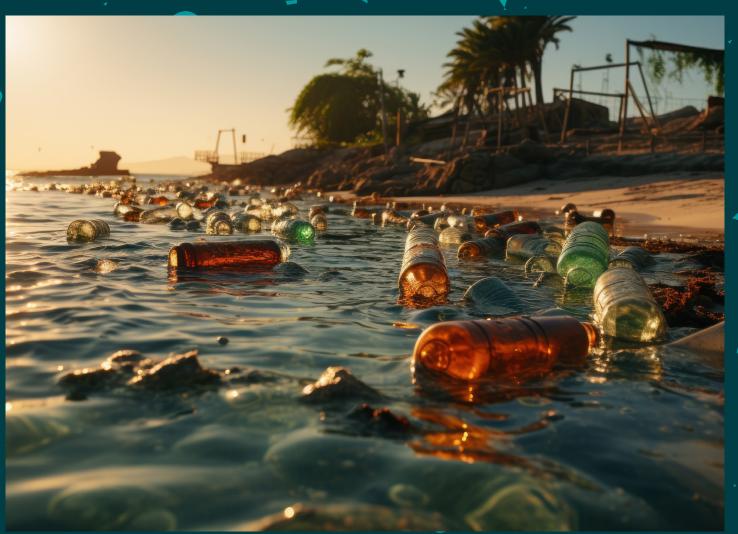
International collaboration and policy influence are crucial for tackling the global challenge of river plastic pollution. Cross-sectoral partnerships, technology exchanges, and advocacy efforts can drive the development and implementation of practical solutions worldwide.

This white paper outlines the urgency of addressing river plastic pollution. It provides a roadmap for leveraging philanthropic efforts, community engagement, corporate responsibility, and international collaboration to achieve cleaner, healthier rivers.



Navigating Currents of Change: The Intersection of Philanthropy and River Conservation





## **Key Points**

- Plastic pollution in rivers is a critical environmental challenge that severely impacts biodiversity, human health, and the global economy.
- Philanthropic capital is essential for driving innovation, supporting community efforts, and advocating for necessary policy changes.
- Success in river conservation requires coordinated efforts across government entities, non-profits, the private sector, and local communities.
- Clearly defined targets for pollution reduction, community engagement, and financial investments are crucial for measuring progress.
- Specific actions for stakeholders include funding research and development, supporting community initiatives, and promoting sustainable practices.



## 3. Introduction

Deborah Backus, Clean Rivers CEO: "Addressing the challenge of plastic leakage into waterways requires a collaborative approach, engaging stakeholders and donors across all sectors."

River ecosystems are vital to the health of our planet, supporting biodiversity, providing fresh water, and sustaining communities. However, these ecosystems are threatened by plastic pollution, which has reached alarming levels in recent years. The consequences of this pollution are far-reaching, impacting the environment, public health, and economic stability.

Plastic waste in rivers originates from various sources, including mismanaged waste disposal, industrial discharges, and urban run-off. Once in the water, plastics can travel long distances, eventually reaching the oceans and contributing to the global marine plastic pollution crisis. Addressing river plastic pollution requires a multifaceted approach that involves various stakeholders, including governments, NGOs, the private sector, and local communities. This white paper explores the role of philanthropy in river conservation, highlighting successful initiatives and providing recommendations for future actions.

This paper also reviews the urgent issue of plastic pollution in river environments. It examines the multi-layered approach and considerations of philanthropic capital and its role in addressing plastic pollution. This includes accelerating advancements in river technology, supporting community engagement, and capacity building.





The following chapters offer an overview of the current state of river pollution, followed by an examination of how philanthropic efforts across various stakeholders can support and significantly drive conservation efforts. The paper further discusses the transformative impact of philanthropic investments in community involvement, the promotion of circular economy principles to reduce waste, and the importance of cross-sectoral and international collaborations in effectively responding to this global issue.

We aim to offer actionable insights and recommendations to bridge the funding gap while demonstrating how collaborations with partners from various sectors can be effectively implemented. We strive to facilitate collaborative dialogue driven by philanthropic leadership to foster innovative and sustainable solutions to one of our time's most pressing environmental challenges: water sustainability.





# 4. The Urgency of Addressing River Plastic Pollution

River ecosystems, vital arteries of the planet's biosphere, are under significant threat from escalating levels of plastic pollution. As rivers flow into seas, they act as primary conduits for transporting plastic waste to marine environments and, subsequently, the ocean. This transfer has severe repercussions, harming biodiversity, ecosystem functionality, and human health. Plastics in river systems disrupt habitats and introduce harmful pollutants, which accumulate up the food chain, affecting aquatic life and the human populations dependent on these water bodies for sustenance and economic activity.

A 2019 study by researchers at the Helmholtz Centre for Environmental Research in Leipzig, studying the Yangtze River, found that the river alone was responsible for transporting nearly 1.5 million tonnes of plastic waste into the ocean annually. Much of this plastic waste originating from far-flung cities and towns ends up in the stomachs of marine animals, entangles wildlife, and eventually breaks down into microplastics that infiltrate our food chain.



The effects of river plastic pollution extend beyond environmental degradation, influencing global economic stability and public health. Communities living near polluted rivers face increased risks of health issues due to contaminated water supplies. Children are growing up with ailments caused by the toxins that plastics release into their drinking water. Local fishermen, who once thrived on the river's bounty, now find their nets filled with more plastic than fish, threatening their livelihoods and food security. The economic impact is also profound, as pollution can diminish biodiversity that many local economies rely on, such as fisheries and tourism. Additionally, visible pollution can reduce waterways' aesthetic and recreational value, further impacting community well-being and local businesses.

Despite this grim reality, the river's story is also one of resilience and hope. Communities around the world are beginning to recognise the dire need for change. For example, in Jakarta, Indonesia, local organisations have mobilised thousands of volunteers to clean the Citarum River, one of the most polluted rivers globally. Their efforts have removed tonnes of plastic waste, demonstrating the power of collective action.



### **Recent Research and Data on River Plastic Pollution**

Recent research reveals the alarming global scale of plastic waste flowing into our oceans yearly through river systems. Various studies estimate that rivers worldwide contribute around 0.4 to 2.8 million metric tonnes of plastic annually to marine environments. This significant influx of pollutants primarily stems from mismanaged waste in countries with inadequate waste disposal and recycling infrastructure<sup>1</sup>. The distribution of river plastic varies between countries, with specific rivers identified as significant contributors. For instance, research published in Nature Communications highlights that just ten river systems, primarily in Asia and Africa, are responsible for most plastics delivered to the oceans. These include the Yangtze, Indus, Yellow River, Hai River, Nile, Ganges, Pearl River, Amur, Niger, and the Mekong<sup>2</sup>. Such findings underscore the necessity of targeted intervention strategies that are geographically and culturally specific.





# 4.1 Linking River Health to Broader Environmental and Public Health Outcomes

The health of river ecosystems is intrinsically linked to broader ecological and human health outcomes. Contaminated rivers impact drinking water quality, agricultural productivity, and fisheries, critical for food security and economic stability in many regions.

#### **Environmental Impact**

Plastic pollution in rivers affects aquatic life not only through ingestion and entanglement but also acts as a carrier for various pollutants, including heavy metals, microplastics, and harmful chemicals such as Polychlorinated Biphenyls (PCBs), which adhere to the plastic surfaces and concentrate in the aquatic food chain. These pollutants threaten biodiversity and disrupt the ecological balance of river habitats through the following means:

#### **Bioaccumulation of Toxic Compounds**

When plastics carry pollutants such as heavy metals and PCBs, these substances can enter the bodies of aquatic organisms. As these plastics break down into smaller pieces, known as microplastics, they become more manageable for a broader range of organisms to ingest. Once ingested, the toxic substances attached to these plastics can accumulate in the organisms' bodies, progressing the food chain through biomagnification. This accumulation can result in harmful effects such as hormonal disruptions, reproductive failure, and even mortality in fish and other wildlife, ultimately impacting the entire food web.

#### **Alteration of Habitats**

Plastics can also alter river environments. When significant amounts of plastic waste accumulate, they can change the flow of rivers and streams, affecting the habitats of organisms reliant on specific flow conditions. These changes may affect sedimentation patterns, potentially impacting the breeding and feeding grounds of fish and other aquatic life, thus diminishing their populations.

#### **Threats to Aquatic Plant Life**

Plastics can cover and smother aquatic plants, reducing their ability to photosynthesise and produce food. This food is crucial for their survival and provides oxygen and habitat for marine organisms that rely on them.





#### **Invasive Species**

Plastics can act as rafts, carrying organisms to parts of rivers where they would not naturally occur. This species transportation can introduce invasive ones, which compete with native species for resources, further threatening local biodiversity and disrupting the ecological balance.

#### **Reduction in Genetic Diversity**

The toxic effects of pollutants from plastics can reduce the reproductive rates of affected species, leading to smaller populations that are more genetically homogenous. This reduction in genetic diversity can make populations more susceptible to diseases and less adaptable to environmental changes, increasing the risk of local extinctions.

Additionally, when plastic waste accumulates in rivers, upon reclamation of the plastics in the rivers, it often becomes incinerated due to the difficulties and the cost-effectiveness of recycling. Burning plastics releases toxic pollutants and greenhouse gases into the atmosphere, contributing to air pollution and climate change.

#### **Public Health Impact**

Communities relying on river water for drinking, bathing, and other domestic uses face increased health risks from contaminated water sources. Several studies have found microplastics and associated toxins in drinking water, posing unknown risks to human health<sup>3</sup>. Furthermore, the economic implications of polluted rivers are profound, affecting industries such as tourism and fisheries, which depend on clean water for their viability<sup>4</sup>.

Addressing river plastic pollution is urgent, not just because it conserves nature but also because it protects human health and maintains economic stability. To effectively manage and mitigate this pressing issue, an integrated approach that combines scientific research, community action, regulatory frameworks, and international cooperation is needed.



Navigating Currents of Change: The Intersection of Philanthropy and River Conservation



#### 4.2 Effective Waste Management

The pressing issue of plastic waste accumulation necessitates a robust plan for effective waste management. Managing plastic pollution involves removing and establishing long-term systems to handle waste responsibly and sustainably.

While communities often face the challenge of managing non-recyclable plastics, the long-term solution lies in prioritising the circular economy principles of reduce, reuse, and recycle, embracing innovative waste reduction technologies, and fostering community engagement to prevent burning as a disposal method.

The adoption of a circular economy should be integrated and aligned with local government policies and supported by adequate funding and infrastructure to ensure its sustainability and effectiveness. Such an approach will help mitigate the adverse effects of plastic waste on our health and the environment in the long term.

#### 4.3 Economic Opportunities for Addressing Effective Waste Management

From a business standpoint, historically, the limited cost-effectiveness and weak economic case for recycling have posed significant barriers to entry into the recycling industry. However, the advent of newer sustainable technologies has transformed the landscape, making the recovery of plastic waste from rivers a viable opportunity.

This approach not only supports environmental restoration but also offers substantial economic benefits. By converting a problematic pollutant into a valuable resource, the recovery process is accelerated. International organisations are now rethinking their business strategies to include the circular economy concept, thus driving advancements in the following areas:





#### **Creation of a Circular Economy**

Recoverable waste, particularly plastics, can be transformed into raw materials for the chemical industry and other sectors. This reduces the reliance on virgin materials, decreases environmental degradation from raw material extraction, and lowers overall carbon footprints. The process supports transition from a linear to a circular economy, where waste is reintegrated into the production cycle, enhancing resource efficiency.

#### **Innovation and New Markets**

Privatising recoverable waste encourages businesses to innovate in recycling technologies and methods. Companies can develop and market technologies for more efficient waste separation, purification, and reprocessing. This innovation has domestic benefits but has the potential for global scalability, opening new markets and expanding business operations internationally.

#### **Job Creation**

Recovering, processing, and reusing waste can create numerous jobs across various levels of the economy. The need for skilled and unskilled labour increases from collection and transportation to high-tech processing. This can significantly benefit local economies, particularly in regions where job creation is needed.

#### **Regulatory Incentives and Financial Support**

Governments can encourage the corporate sector to invest in waste recovery operations through incentives such as tax breaks, subsidies, or even direct financial support for research and development in waste management technologies. Such incentives can make it financially attractive for companies to invest in recovery operations and contribute to environmental sustainability.

## Corporate Social Responsibility (CSR) and Brand Value

Engaging in waste recovery helps companies meet their CSR objectives and enhances their brand value. Consumers are increasingly favouring companies with strong environmental credentials. By investing in waste recovery, companies can improve their public sustainability image, appeal to environmentally conscious consumers and investors, and bolster customer loyalty.

#### **Reduced Waste Management Costs**

By investing in technologies that enable the recovery of materials from waste, companies can reduce the costs associated with waste disposal. Lower waste management costs can lead to significant savings, particularly for industries that produce large volumes of waste.

#### **Creation of Valuable Byproducts**

Through the processing of recovered plastics, companies can produce by-products that are useful in other industries, such as construction, agriculture, and other consumer products.



## 4.4 Global Efforts in Tackling the Urgency of Plastic Pollution

The urgency of addressing river plastic pollution is evident from various impactful projects across Africa, South America and South East Asia. In Africa, the Nile River Cleanup Project in Egypt mobilises local communities, NGOs, and government agencies to tackle plastic waste, significantly reducing pollution and raising awareness about river conservation.

In Indonesia, The Restoration Project involves local communities, environmental NGOs, and the government working to clean the Brantas River. This project has significantly reduced plastic pollution and improved the river's health.

Similarly, the Let's Do It! Africa initiative, part of an international movement, orchestrates coordinated cleanup events in Kenya, Uganda, and South Africa. These events involve millions of volunteers and remove tonnes of plastic from rivers and other ecosystems. Kenya's Dandora Waste to Energy Project exemplifies an innovative approach by converting waste, including plastics, into energy, thereby mitigating pollution in the Nairobi River.

In South America, the Amazon River Cleanup Initiative engages local communities and environmental groups to address plastic pollution in the world's largest river, preserving biodiversity and supporting local livelihoods. The Restoration Project in Colombia focuses on cleaning the heavily polluted Bogotá River, improving wastewater treatment, and promoting sustainable waste management. In Peru, The Lima River Cleanup Campaign involves local volunteers and the municipal government in regular cleanups and educational programmes to significantly reduce plastic waste and promote environmental stewardship.

However, river conservation involves much more than just removing plastics; it requires the collaboration of multiple stakeholders, including governments, NGOs, the private sector, and local communities. Addressing this challenge means tackling pollution sources, implementing sustainable waste management practices, restoring natural habitats, and encouraging community participation.

These types of collaboration play a role in shifting value chains towards a circular economy, setting new industry standards, and significantly contributing to overall river restoration efforts.

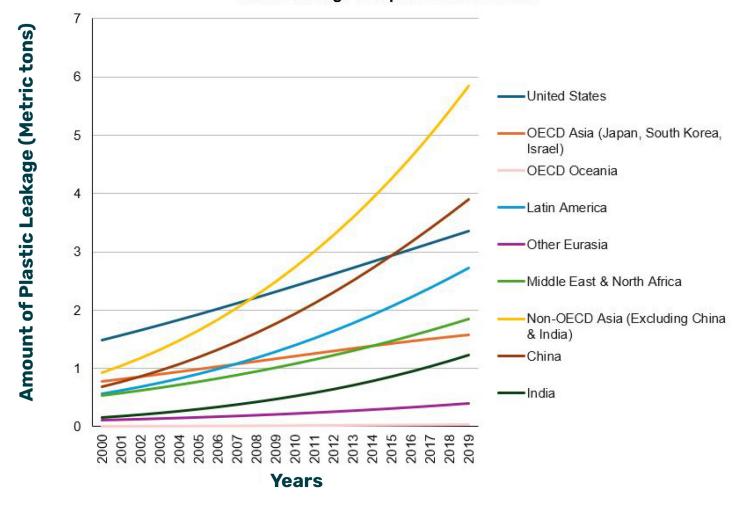




This graph highlights the growing concern of plastic pollution in aquatic environments, with significant contributions from several key regions, particularly China and the United States.

Data showing the upward trajectory in plastic leakage into aquatic environments (2000 - 2019) :

- The United States and China show the steepest increase in plastic leakage, with China's value being the highest in 2019.
- OECD Asia and Latin America also exhibit significant growth in plastic leakage.
- Other regions like OECD Oceania, Other Eurasia, and the Middle East & North Africa show relatively slower growth.
- Non-OECD Asia (excluding China & India) shows moderate growth.
- India and OECD Oceania have the lowest leakage values among the regions listed.



#### Plastic leakage to aquatic environments



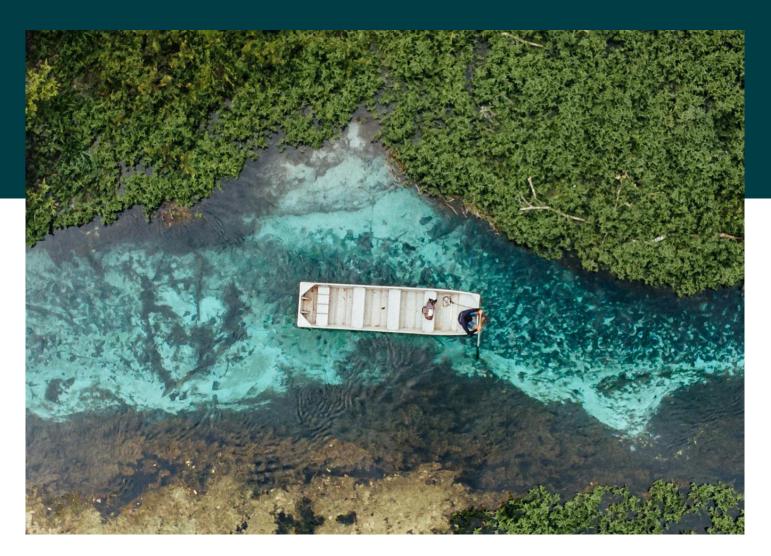
# 5. Philanthropy's Role in River Rejuvenation & Conservation

## 5.1 The Importance of Philanthropy

Philanthropy is crucial in addressing environmental challenges, particularly river and water conservation. Philanthropic contributions naturally align with sustainability and the pursuit of societal and global welfare. Concerning river conservation, this effort supports the UN's Sustainable Development Goal 6, ensuring access to water and sanitation for all. Foundations such as the Gates Foundation have played an active role through extensive funding for water sanitation and hygiene projects, which indirectly affect river health by improving waste management practices in critical regions<sup>5</sup>.

Key philanthropic stakeholders in river conservation include corporations, foundations, private capital, and micro-donors. Through the investment of capital these stakeholders enable partnerships and initiatives between government entities.

Collaborative ventures, often initiated with philanthropic capital funding and further supported by multilateral and non-government agencies, are vital for achieving the systemic changes needed to sustain river ecosystems over the long term.





#### 5.2 Philanthropic Donors

According to research by Citibank Group, an estimated \$2.4 trillion of assets under management globally are within the philanthropic sector. With only about 3% of philanthropic capital allocated to environmental causes, it is reasonable to conclude that less than \$72 billion is directed towards river conservation. Therefore, as Clean Rivers, we have a role to actively engage philanthropic stakeholders in increasing awareness, attention and capital flows into river conservation efforts.



Philanthropy raises funds from diverse donors, each contributing through different mechanisms that collectively fuel charitable initiatives. Private and university foundations, play a significant role in philanthropy, particularly in river conservation. These foundations possess substantial financial resources, often accumulated over generations, enabling them to contribute significantly to environmental causes. Their ability to provide long-term funding is vital for the success of river conservation projects, which frequently require extended periods to achieve meaningful results.



Corporate philanthropy is a cornerstone of modern sustainability efforts, mobilising substantial resources to address pressing social and environmental issues. Companies often establish dedicated foundations to manage their charitable activities, focusing on broader sustainability and social impact agendas. These foundations, alongside CSR programmes, allocate a portion of business profits towards environmental and social causes, making significant contributions to longterm projects and innovative research.

Private foundations, created by wealthy individuals or families, and universities also play a crucial role by providing substantial grants. Direct contributions from individuals, driven by personal conviction and commitment, add another vital stream of capital for philanthropic causes. Public donations are typically solicited through diverse fundraising campaigns, events, and online platforms, engaging a broad and diverse donor base. Additionally, grants from NGOs and international organisations supplement these efforts, supporting specific projects aligned with their missions.

Corporate foundations are a significant source of philanthropic capital. Companies establish these entities to manage their charitable activities, often focusing on the broader sustainability and social impact agendas. Similarly, CSR programmes play a crucial role, as businesses allocate a portion of their profits to environmental and social causes as part of their operational expenses. Additionally, private foundations created by wealthy individuals or families and universities provide substantial grants for long-term projects and innovative research.

Direct contributions from individuals should not be underplayed and provide another vital stream of capital for philanthropic causes. People often donate out of personal conviction and commitment to causes that resonate with them. Public donations are typically solicited through fundraising campaigns, events, and online platforms, engaging a broad and diverse donor base. Grants from NGOs and international organisations further supplement these efforts, supporting specific projects aligned with their missions. Each of these sources brings unique advantages and perspectives.

### 5.2 Philanthropic Donors

Corporate philanthropy is one of the largest and most important agents for capital and resource deployment for change. Often conducted through CSR initiatives, corporate philanthropy increasingly integrates environmental sustainability considerations into strategic business directions.

Companies that utilise substantial natural resources recognise the necessity of sustaining healthy river systems for operational sustainability and regulatory compliance. Corporate philanthropy has become a standard and impactful means for businesses to contribute to societal well-being, surpassing traditional foundations and charities in prevalence and influence.

Several factors drive this trend for example, corporations leverage philanthropy to enhance their brand image and reputation, using social contributions to improve public perception and customer loyalty.





Philanthropic activities also serve as effective marketing and public relations tools, helping companies reach broader audiences and distinguish themselves from competitors. Additionally, corporate philanthropy boosts employee morale and retention, as employees feel proud and connected to employers who support social causes.

Companies often align their philanthropic efforts with strategic business interests, creating synergies that benefit the community and their operations. With more significant financial resources than most foundations and charities, corporations can support larger-scale initiatives and make substantial contributions. Tax benefits further incentivise charitable giving by reducing taxable income.

Stakeholders, including customers, employees, investors, and communities, increasingly expect CSR. Philanthropy helps meet these expectations and build trust.

Moreover, corporations' agility and responsiveness allow them to quickly address urgent needs and emerging issues. With a global reach and influence, large corporations can drive significant positive change on a broad scale, reinforcing the importance and prevalence of corporate philanthropy in today's business environment.

Furthermore, regarding river plastic pollution, companies like Adidas and Parley for the Oceans have collaborated to create products from recycled river plastics. This initiative reduces plastic waste in rivers and promotes a circular economy.

Another notable example is the Ocean Cleanup project, which focuses on removing plastic from rivers before it reaches the ocean. By deploying advanced cleanup technologies in some of the world's most polluted rivers, they significantly mitigate the flow of plastic waste into marine environments.

## 5.4 Success of Philanthropy in Other Sustainability Causes

More broadly, the successful adoption of corporate philanthropy in natural sustainability can be seen in several notable examples. One instance is The Nature Conservancy's partnerships with various corporations, where they have protected and restored millions of acres of critical habitats worldwide.

Another example is the Bezos Earth Fund, established by Jeff Bezos, which has committed \$10 billion to support scientists, activists, and organisations working on climate change and biodiversity protection.

Patagonia's Action Works initiative also serves as a rallying point, connecting environmental NGOs with volunteers and donors. This platform empowers individuals to contribute directly to grassroots efforts, underscoring the pivotal role of private funding in conserving rainforests and oceans and promoting sustainable agriculture and renewable energy projects.

Taking lessons learnt from other areas of nature philanthropy and replicating and adapting their approaches to bring relevance to water conservation is a good starting point to build upon.





#### 5.5 Foundations

Private and university foundations play an essential role in philanthropy, particularly in river conservation. These foundations possess substantial financial resources, often accumulated over generations, enabling them to contribute significantly to environmental causes. Their ability to provide long-term funding is vital for the success of river conservation projects, which frequently require extended periods to achieve meaningful results.

Private foundations bring a wealth of expertise and their vast networks and knowledge to implement innovative solutions and best practices in water management. University foundations leverage their access to cutting-edge research, academic expertise, and innovative technologies to drive impactful initiatives. One of their primary contributions is funding and conducting extensive research on river ecosystems. This research is vital in understanding the complex dynamics of river pollution, identifying its sources, and assessing its impacts on the environment and human health.

For instance, Oxford University's Environmental Change Institute, funded by its foundation, has provided valuable insights into the effects of plastic pollution on river systems and developed models for predicting pollution trends. By advancing scientific knowledge, university foundations lay the groundwork for developing effective conservation strategies and innovative solutions.

University foundations also significantly train the next generation of environmental scientists, engineers, and policymakers. Through scholarships, grants, and funding for academic programmes, these foundations ensure that students receive the education and skills needed to address future environmental challenges. Graduates from these programmes often go on to lead significant conservation projects and policy initiatives.



# 6. Donor Alignment Gap

One of the significant challenges in philanthropic efforts for river conservation is the need for coordination among donors. Many philanthropic initiatives operate in silos, with limited communication and collaboration between different organisations and stakeholders. This fragmentation can lead to duplicated efforts, inefficient use of resources, and missed opportunities for synergistic impact.



## 6.1 Enhancing Collaboration

Enhancing collaboration among donors is essential to maximise the impact of philanthropic investments in river conservation. Establishing platforms for knowledge sharing, joint funding initiatives, and coordinated action plans can help align efforts and create a more unified approach to addressing river pollution. Collaborative networks can facilitate sharing best practices, lessons learned, and successful strategies, enabling donors to leverage each other's expertise and resources.

#### 6.2 Potential for Greater Impact

By addressing the donor alignment gap and fostering greater collaboration, philanthropic efforts can achieve a more significant and sustainable impact on river conservation. Coordinated actions can lead to more comprehensive and integrated solutions, addressing the root causes of river pollution and promoting longterm sustainability. Collaborative initiatives can also attract additional funding and support from other stakeholders, amplifying the reach and effectiveness of philanthropic investments.

## 6.3 Addressing Challenges in Donor Alignment

Addressing challenges in donor alignment requires a concerted effort from all stakeholders involved in river conservation. Establishing clear communication channels, fostering trust and transparency, and creating joint decision-making and accountability mechanisms are critical to enhancing collaboration. Donors must also be willing to invest in the necessary infrastructure and capacity-building efforts to support coordinated actions and ensure the sustainability of collaborative initiatives.



# 7. Community Engagement

## 7.1 Local Knowledge

Engaging local communities in river conservation efforts is crucial for achieving long-term success. Local communities possess valuable knowledge about the river ecosystems, including the sources of pollution, the impact on local livelihoods, and potential solutions. Involving community members in conservation activities fosters a sense of ownership and responsibility, ensuring that initiatives are rooted in local context and needs.

#### 7.2 Action & Awareness Multiplier

Community engagement serves as a powerful multiplier for action and awareness. When communities actively participate in conservation efforts, they become advocates and ambassadors for river health, spreading awareness and encouraging others to participate. Community-led initiatives can mobilise volunteers, raise funds, and implement on-the-ground actions that contribute to the overall success of river conservation projects.







#### 7.3 Community Mobilisation

Mobilising communities for river conservation involves organising clean-up drives, educational workshops, and awareness campaigns. These activities address immediate pollution issues and build a culture of environmental stewardship and collective action. Examples of successful community-led initiatives include river clean-up events, citizen science programmes for monitoring water quality, and community-based waste management projects.

## 7.4 Challenges and Opportunities in Community Engagement

While community engagement offers significant benefits, it also presents challenges that must be addressed. These challenges include limited resources, the need for awareness and education, and potential conflicts of interest. To overcome these challenges, it is essential to invest in capacity-building programmes, provide technical and financial support, and create platforms for dialogue and collaboration between community members and other stakeholders.

#### **Examples of Successful Community-Led Initiatives**

Successful community-led initiatives demonstrate the power of grassroots action in river conservation. For instance, the Ganga Action Parivar in India has mobilised thousands of volunteers to clean the Ganges River, raise awareness about pollution, and implement sustainable waste management practices. In the United States, the Riverkeeper organisation has engaged local communities in efforts to protect the Hudson River, resulting in significant improvements in water quality and ecosystem health.



# 8. Private Sector Engagement

#### 8.1 Engaging the Private Sector in River Conservation

Engaging the private sector in river conservation is critical for achieving scalable and sustainable impact. Private companies have the resources, expertise, and innovation capabilities to drive significant progress in reducing plastic pollution and promoting sustainable water management practices.

## 8.2 Corporate Social Responsibility (CSR) Initiatives

CSR initiatives can align business interests with environmental goals, creating win-win opportunities for companies and river ecosystems. By adopting circular economy principles, companies can reduce plastic waste, improve resource efficiency, and create new business opportunities from recovered materials.

## 8.3 Partnerships for Practical River Conservation Projects

Private sector engagement also involves partnering with NGOs, government agencies, and local communities to implement practical river conservation projects. Collaborative efforts can leverage each partner's strengths, combining technical expertise, financial resources, and community engagement to achieve shared goals.







# 9. Transitioning to a Circular Economy

#### 9.1 Transitioning to a Circular Economy

Transitioning to a circular economy is essential for addressing the root causes of river plastic pollution. A circular economy model emphasises reducing waste, reusing materials, and recycling products to create a closed-loop system. This approach minimises the extraction of virgin resources, reduces environmental impacts, and promotes sustainable consumption and production patterns.

# 9.2 The Private Sector's Role in Accelerating the Circular Economy

The private sector is crucial in accelerating the transition to a circular economy. Companies can innovate in product design, manufacturing processes, and supply chain management to reduce plastic waste and enhance resource efficiency. By adopting sustainable business practices, companies can create a circular economy and drive positive environmental outcomes.

# 9.3 Corporate Responsibility and Reporting

Corporate responsibility and transparency are vital for ensuring accountability and measuring progress towards circular economy goals. Companies should report on their environmental performance, including waste reduction, recycling rates, and resource efficiency metrics. Transparent reporting allows stakeholders to assess the impact of corporate actions and hold companies accountable for their environmental commitments.



# 10. Conclusions and Key Recommendations

## 10.1 Intersection of Philanthropy and River Conservation

This white paper highlights the critical intersection of philanthropy and river conservation, emphasising that resolving plastic pollution and river conservation is not a linear solution. It demonstrates that philanthropic capital is essential and transformative in driving efforts to rejuvenate and conserve river ecosystems. Through leveraging philanthropic funding, we can accelerate technological advancements, support community engagement, and create forums for cross-sectoral and international collaborations by bridging funding gaps and creating opportunities.

## 10.2 Urgency of Addressing River Plastic Pollution

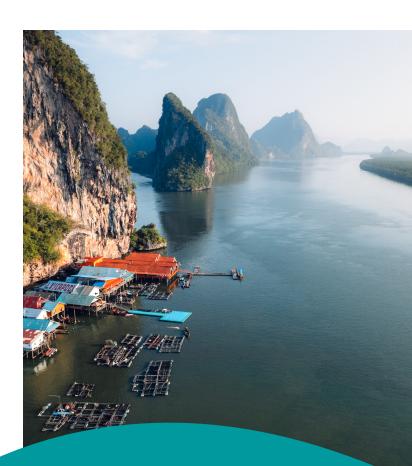
The urgency of addressing river plastic pollution is evident. River ecosystems, vital to the planet's biosphere, are significantly threatened by escalating plastic pollution. Addressing this issue is crucial for protecting biodiversity, public health, and economic stability. Philanthropic contributions align with sustainability goals and are essential for funding long-term, impactful projects. Key stakeholders, including corporations, private foundations, and micro-donors, support river conservation initiatives.

# 10.3 Corporate Philanthropy as a Driver of Sustainability

Through CSR initiatives, corporate philanthropy has become a powerful driver of environmental sustainability. Community involvement is equally vital, leveraging local knowledge and fostering a sense of stewardship. Shifting to a circular economy for plastics is essential for reducing waste and promoting resource efficiency. This approach can drive innovation, create economic opportunities, and significantly reduce environmental impacts. Effective river conservation requires robust policy frameworks and international cooperation. Standardising regulations and fostering global partnerships are critical for addressing the transboundary nature of plastic pollution.

# 10.4 Empowering Local Stewardship

Empowering local stewardship through investment in grassroots movements and capacity-building programmes are equally important. Establishing sustainable livelihood initiatives that create economic opportunities from clean water will further enhance these efforts, ensuring that local communities are actively involved and benefit from conservation activities. This will also help foster a sense of ownership and responsibility towards maintaining healthy river ecosystems.





## 10.5 Raising Awareness and Educational Campaigns

Raising awareness of river plastic pollution through educational campaigns and community engagement activities is essential to river conservation. Developing and distributing educational materials and supporting school and university programmes focused on environmental science, can help build a foundation of knowledge and commitment to river conservation. Encouraging businesses and governments to adopt circular economy principles and supporting policies that incentivise the reuse and recycling of materials will help prevent river pollution.

# 10.6 Increasing Funding for Research and Development

Increasing funding for research and development is imperative. Collaborating with academic institutions to promote the development of new technologies, and supporting pilot projects and innovation challenges, can drive practical solutions and technological advancements. International collaborations and technology exchange mechanisms can facilitate the sharing of best practices, enabling countries to learn from each other and implement effective solutions.

# 10.7 Strengthening Cross-Sectoral and International Collaborations

Strengthening cross-sectoral and international collaborations is essential for addressing the complex challenges of river plastic pollution. Governments, NGOs, private sector entities, academic institutions, and international organisations must work together to develop comprehensive solutions. International agreements and frameworks for cooperation and resource sharing will enhance these efforts. Advocating for stronger environmental regulations and financial incentives to promote sustainable practices, along with supporting certification programmes and sustainability reporting standards, will ensure accountability and transparency.



#### **10.8** Conclusion

In conclusion, this white paper can enable all stakeholders across various sectors to contribute to meaningful and lasting change in river conservation. Through collaboration, innovation, and strategic investments, we can turn the tide against plastic pollution and restore the vitality of our rivers. The dedication and collaborative efforts of all stakeholders, catalysed by strategic philanthropic capital, will be crucial in achieving cleaner, healthier river ecosystems worldwide. By raising river awareness and directing philanthropic resources now, we can make a substantial impact, ensuring that our rivers continue to sustain life and enhance the well-being of communities across the globe.



#### What Next?

The complex challenges of river conservation and the urgent need to address plastic pollution demand a comprehensive approach that integrates environmental health with socio-economic stability. Clean Rivers aims to catalyse the creation of circular economies that combat plastic waste, foster innovation, and empower communities, all supported by our philanthropic investment. Just as rivers are the veins and lifeline of many communities, philanthropic funds play a critical role in bringing much-needed resources to river conservation. By channelling philanthropic funds into community education, infrastructural enhancements, and the enforcement of sustainable practices through regulatory frameworks, Clean Rivers, in collaboration with cross-sector and industry partnerships, can drive transformative changes. Our efforts to raise public awareness will help direct philanthropic donations to our cause, paving the way for a sustainable future where river ecosystems thrive in harmony with human activities. Through global cooperation, we aim to safeguard the health of our planet's waterways.



## References

Clean Rivers in collaboration with **Markus Horcher**, Director Sustainability & Public Affairs - Borealis **Oliver Kade**, Technical Director and Head of the Consultancy Department - Seven Clean Seas **Nitin Bassi**, Senior Programme Lead, Sustainable Water - CEEW PricewaterhouseCoopers Middle East & Sustainability Network

1. Lebreton, L., Van der Zwet, J., Damsteeg, J.W., Slat, B., Andrady, A., & Reisser, J. (2017). River plastic emissions to the world's oceans. Nature Communications, 8, 15611. DOI: 10.1038/ ncomms15611.

2. Schmidt, C., Krauth, T., & Wagner, S. (2017). Export of Plastic Debris by Rivers into the Sea. Nature Communications, 8(1). DOI: 10.1038/s41467-017-01285-x

3. Koelmans AA, Mohamed Nor NH, Hermsen E, Kooi M, Mintenig SM, De France J. Microplastics in freshwaters and drinking water: Critical review and assessment of data quality. Water Res. 2019 May 15;155:410-422. doi: 10.1016/j.watres.2019.02.054. Epub 2019 Feb 28. PMID: 30861380; PMCID: PMC6449537

4. Horton, A.A., Walton, A., Spurgeon, D.J., Lahive, E., & Svendsen, C. (2017). Microplastics in freshwater and terrestrial environments: Evaluating the current understanding to identify the knowledge gaps and future research priorities. Science of The Total Environment, 586, 127-141. DOI: 10.1016/j.scitotenv.2017.01.190

5. Mzyk Callias, K., Grady, H., & Grosheva, K. (2017). Philanthropy's contributions to the Sustainable Development Goals in emerging countries. European Research Network on Philanthropy 8th International Conference. Copenhagen.