

Promotion of action against marine plastic litter in Asia and the Pacific (CounterMEASURE II)

1. PROJECT SUMMARY

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| 1. Title | Promotion of action against marine plastic litter in Asia and the Pacific (CounterMEASURE II) |
| 2. Project Period | June 2020 to March 2022 |
| 3. Donor | Government of Japan |
| 4. Budget | US\$5,700,000 (Including PSC 13% and UN levy 1%) |
| 5. Implementing Agency | The United Nations Environment Programme (UNEP) Regional Office for Asia and the Pacific |
| 6. Link to UNEP global programme | 522.4 Protecting the Marine Environment from Land-Based pollution through strengthened coordination of global action |
| 7. Outcome | Government, business entities and stakeholders' uptake innovative tools, policies, best technologies and innovative financial mechanisms to encourage good practice and behavioral change to reduce marine pollution |
| 8. Output | Scientific knowledge on plastic pollution in the Ganges, Mekong and selected rivers in Sri Lanka and Myanmar is generated, shared and disseminated to inform policy and decision-making processes at local, national, regional and global level |
| 9. Expected Results | <p>Key Result 1: Knowledge on plastic pollution in the Mekong, Ganges and selected Sri Lanka and Myanmar rivers generated to inform policy and decision-making processes</p> <p>Key Result 2: Knowledge on plastic pollution in the Mekong, Ganges and selected rivers in Sri Lanka and Myanmar is managed, shared and disseminated</p> <p>Key Result 3: National, regional and global policies, alliances and financial mechanisms are informed and influenced by the science on plastic pollution in rivers through best practices demonstrated from the Mekong and Ganges rivers examples</p> |
| 10. Locations | Lower Mekong (Thailand: Chiang Rai, Ubon Rachathani; Lao PDR: Vientiane; Cambodia: Tonle Sap, Phnom Penh; Vietnam: Can Tho), Ganges (India: Haridwar, Allahabad/Prayagraj, Agra, Patna), Sri Lanka, Myanmar |
| 11. Beneficiaries | <ul style="list-style-type: none"> National/Local governments in 7 countries in Asia, i.e. 4 countries of the lower Mekong River Basin (Cambodia, Lao PDR, Thailand, Vietnam), India and Sri Lanka in South Asia, and Myanmar Mekong River Commission and national/local government in its member states Existing and future Parties to the Convention on the Conservation of Migratory Species of Wild Animals Academia and Research institutes in Asia and the Pacific |
| 12. Implementation partners | <ul style="list-style-type: none"> Asian Institute of Technology (AIT) Geoinformatics Center (GIC), Thailand, in conjunction with the Center for Spatial Information Science of Tokyo University and Japan Aerospace Exploration Agency (JAXA), Japan Can Tho University, Vietnam Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia Convention on Migratory Species (CMS) Secretariat, Germany |

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- Japan International Cooperation Agency (JICA) national offices in Cambodia, Lao PDR, Thailand, Vietnam
 - Kitakyushu Asian Center for Low Carbon Society, Japan
 - Mae Fah Luang University, Thailand
 - Mekong River Commission (MRC), Laos, and MRC focal points in Lower Mekong countries
 - National Geographic, USA
 - National Oceanography Center (NOC), UK
 - National Productivity Council (NPC), India
 - National University of Laos, Lao PDR
 - Okayama University, Japan
 - Pirika Association, Japan
 - Royal University of Phnom Penh, Cambodia
 - Ubon Ratchathani University, Thailand
 - United Nations Information Centre (UNIC), Japan
 - Technology providers such as EX Research Institute Ltd., IRG Systems South Asia Pvt. Ltd., Google
 - Trash Hero, Thailand
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2. INTRODUCTION

Globally, approximately 3.0 to 5.3 million MT of micro- and macro plastics, respectively, are lost annually to the environment, of which, between 1.2 and 2.4 million MT of plastic litter is estimated to flow from the world's rivers into the oceans every year. CounterMEASURE II plans to further strengthen scientific knowledge by building on the lessons and results of CounterMEASURE I (CM1) work to determine the origins of plastic pollution in the Mekong and Ganges and foster local partnerships for tackling the problem.

In May 2020, Japan and UNEP announced their cooperation on Promotion of action against marine plastic litter in Asia and the Pacific (CounterMEASURE II or CM2) with Japan's financial support of US\$ 5,700,000. Japan and UNEP's cooperation through the initial CounterMEASURE efforts along the Mekong and Ganges rivers in 2019-2020 resulted in bespoke policy recommendations to governments to help stop plastic pollution where it is leaking into waterways. It also generated a regional Framework for Plastic Leakage Assessment and Monitoring in Rivers in Asia (see Annex for the full list of outputs).

CounterMEASURE II expands the work of the first phase, furthering scientific knowledge, increasing outreach and awareness, including through capacity building on the technology used; and advancing policy and behavioral changes in Mekong countries and India, with the aim of setting examples for efforts to reduce plastic pollution in rivers at both regional and global levels. Applying the methodologies and science to other locales such as Sri Lanka and Myanmar will help demonstrate the efficacy of the CounterMEASURE approach to other rivers in Asia. The second phase also looks at the impact of plastic pollution on wildlife, particularly migratory species and support policy advocacy on these issues.

CounterMEASURE II is linked to the UNEP POW project 522.4 "Protecting the Marine Environment from Land-Based pollution through strengthened coordination of global action".

3. THEORY OF CHANGE

CounterMEASURE II will contribute towards the following **outcome**:

Government, business entities and stakeholders' uptake innovative tools, policies, best technologies and innovative financial mechanisms to encourage good practice and behavioral change to reduce marine pollution

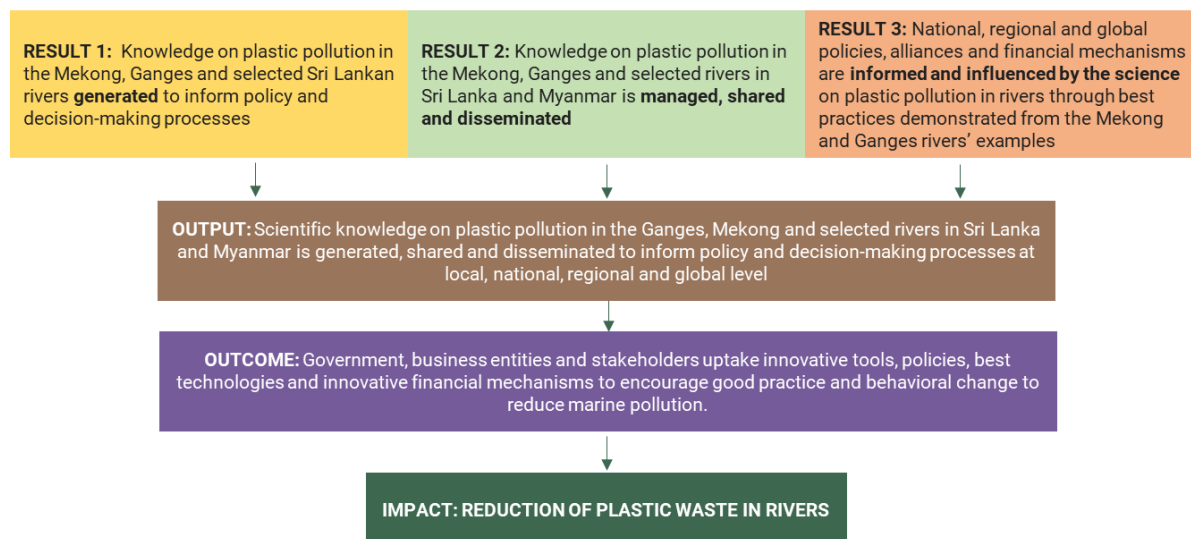
This will be done through one **output**:

Scientific knowledge on plastic pollution in the Ganges, Mekong and selected rivers in Sri Lanka and Myanmar is generated, shared and disseminated to inform policy and decision-making processes at local, national, regional and global level

Three key results will contribute towards the project output as follows:

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| Key Result 1 | Knowledge on plastic pollution in the Mekong, Ganges and selected Sri Lanka and Myanmar rivers generated to inform policy and decision-making processes |
| Key Result 2 | Knowledge on plastic pollution in the Mekong, Ganges and selected rivers in Sri Lanka and Myanmar is managed, shared and disseminated |
| Key Result 3 | National, regional and global policies, alliances and financial mechanisms are informed and influenced by the science on plastic pollution in rivers through best practices demonstrated from the Mekong and Ganges rivers examples. |

THEORY OF CHANGE – COUNTERMEASURE II



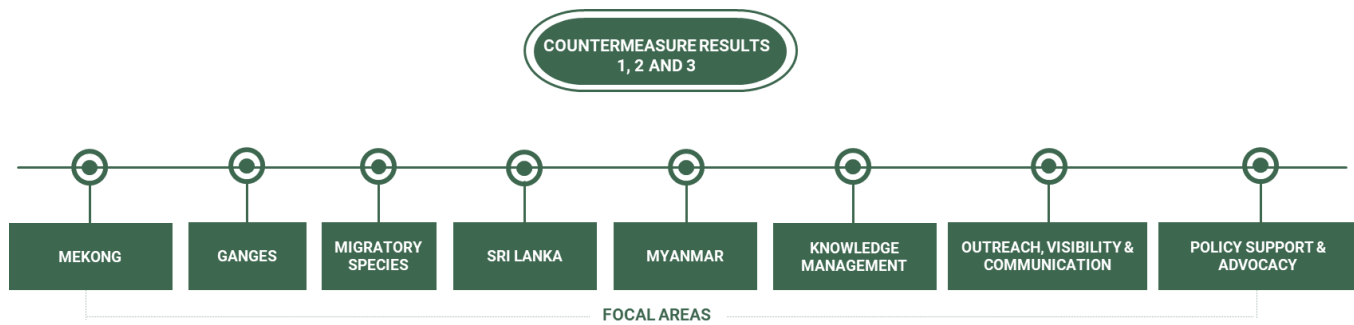
ASSUMPTIONS:

- Stakeholders acknowledge adverse impacts of marine litter and plastic pollution and are willing to address them
- Stakeholders appreciate science as a common basis for decision-making
- Reasonable levels of trust exist among stakeholders and among key sector (e.g. waste management including informal workers, marine and coastal authorities and communities, petrochemical, packaging, food and beverage industries)
- Stakeholders have confidence in UNEP globally and in the region as unbiased brokers of partnerships and provider of knowledge and tools
- Regional dialogue, exchange and agreements facilitate uptake and replication of tools and approaches, and adoption of harmonized policies and regulations
- Targeted outreach and consumer behavioural change encourages actions by private sector as well as governments, including holding them to account

4. ACTIVITIES BY RESULT AND FOCAL AREA

The primary rivers of focus under CounterMEASURE II are the Mekong and Ganges, with scoping for rivers in Sri Lanka and Myanmar, as well as exploring the impact of plastic pollution on migratory species in the Mekong. The project has identified 8 focal areas that will contribute towards one, two or all these results. The focal areas are as

follows: 1) Mekong; 2) Ganges; 3) Migratory Species; 4) Sri Lanka; 5) Myanmar; 6) Knowledge Management; 7) Outreach, Visibility and Communication; and 8) Policy Support and Advocacy.



| MEKONG FOCAL AREA | |
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| <i>Knowledge Generation</i> | <ul style="list-style-type: none"> Conduct a microplastic analysis and source identification in the lower Mekong (Chiang Rai, Vientiane, Ubon Rachathani, Tonle Sap, Phnom Penh, Can Tho) in at least two seasons and produce a report on the findings. Conduct a macroplastic analysis with a focus on major plastic constituents as identified in CM1, in the lower Mekong (Chiang Rai, Vientiane, Ubon Rachathani, Tonle Sap, Phnom Penh, Can Tho) in at least two seasons and produce a report on the findings. Undertake a mapping of plastic leakage hotspots and pathways in the lower Mekong (Chiang Rai, Vientiane, Ubon Rachathani, Tonle Sap, Phnom Penh, Can Tho) by applying the standardized methodology of CM1, including through GIS platforms and mobile applications, and develop a report on the findings. |
| <i>Knowledge Dissemination</i> | <ul style="list-style-type: none"> Conduct five trainings on plastic leakage and plastic waste management for local governments and port authorities (at least 10 major ports/piers) in Cambodia, Lao PDR, Thailand, and Vietnam. Conduct a perception survey and based on its findings, develop a communication plan for “Plastic-free rivers” in the Mekong and implement outreach activities (e.g. press tour programme, localized anti-plastic pollution campaigns). |
| <i>Knowledge for Policy</i> | <ul style="list-style-type: none"> Prepare a report on plastic pollution in the Mekong as part of the MRC Plan for Plastic Waste Assessment and Monitoring (2020-2021) (and as a contribution to the State of the Mekong River report in 2023). Develop a guide for plastic monitoring in the Mekong, covering ghost gear and with standardization of collection and sampling methods (e.g. using Bongo nets as plastic pollution capturing device) as part of the existing monitoring programmes such as WQN and FADM with protocol and national self-funded mechanisms. Prepare solid waste management plans for selected ports and piers to reduce plastic leakage, in four administrations in the lower Mekong countries. Prepare portfolio of policy and science briefs from CounterMEASURE Mekong for dialogue and policy advocacy at local and national level for targeted policy announcements leading up to the G20 meeting. |
| GANGES FOCAL AREA | |
| <i>Knowledge Generation</i> | <ul style="list-style-type: none"> Conduct a microplastic analysis and source identification in the four locations (Haridwar, Allahabad/Prayagraj, Agra and Patna) in at least two seasons and produce a report on the findings Conduct a macroplastic analysis with a focus on major plastic constituents as identified in CM1, in the four locations (Haridwar, Allahabad/Prayagraj, Agra and Patna) in at least two seasons and produce a report on the findings. Undertake a mapping of plastic leakage hotspots and pathways, in 3 of the 4 locations (Haridwar, Allahabad/Prayagraj, Agra and Patna) by applying a standardized methodology of CM1, including through GIS platforms and mobile applications, and develop a report on the findings. |

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| | <ul style="list-style-type: none"> Prepare a report on status of knowledge on the trends, scope and impact of plastic pollution on CMS-listed species in terrestrial and freshwater ecosystems in India. |
| <i>Knowledge Dissemination</i> | <ul style="list-style-type: none"> Design and execute training and capacity building modules based on methodological tools and outputs of Result 1 for identified stakeholders (e.g. local government, local traders' association, rag pickers, hospitality industry) specific to the plastic value chain in two identified cities and their needs assessment through the perception surveys. Develop and implement an outreach and communications plan, including a capacity mapping and the production of awareness products (e.g. a film on microplastics and their impacts) for creating wider awareness on the issue of plastic pollution in the Ganges river. |
| <i>Knowledge for Policy</i> | <ul style="list-style-type: none"> Conduct policy dialogues involving the public and private sector at the city, state and national level, informed by the knowledge generated under Result 1. Prepare portfolio of policy and science briefs from CounterMEASURE Ganges for dialogue and policy advocacy at the local and national level. |
| MIGRATORY SPECIES FOCAL AREA | |
| <i>Knowledge Generation</i> | <ul style="list-style-type: none"> Research the scope and impact of plastic and microplastic pollution on Mekong river fauna with a focus on migratory freshwater fish species. Assess plastic hotspots in the terrestrial and freshwater environment in selected sites and identify priority intervention areas for preventing, combating and removing accumulated plastic pollution in areas of high importance for migratory species as per Decision 13.DD. |
| <i>Knowledge Dissemination</i> | <ul style="list-style-type: none"> Disseminate findings at relevant fora as well as through social media and the CMS website to broaden awareness and knowledge and to stimulate further research on plastic pollution. |
| <i>Knowledge for Policy</i> | <ul style="list-style-type: none"> Prepare a report on the status of knowledge on the trends, scope and impact of plastic pollution on CMS-listed species in terrestrial and freshwater ecosystems with a focus on the Asia and Pacific region, and disseminate the knowledge generated. Develop a biological monitoring protocol for Mekong River as part of the development of the assessment methodology and monitoring programme on plastic pollution in the Mekong River. |
| SRI LANKA FOCAL AREA | |
| <i>Knowledge Generation</i> | <ul style="list-style-type: none"> Develop a proposal for a scoping survey for one river in Sri Lanka to present to the Government of Sri Lanka for approval. Undertake scoping survey to identify the river and proposed activity to generate knowledge on plastic pollution in said river, including outreach activities for the CounterMEASURE project and developing a report that captures the results of the survey and analysis, as well as the narrative experience of the scoping mission. |
| <i>Knowledge for Policy</i> | <ul style="list-style-type: none"> Develop jointly with Government counterparts a Sri Lanka CounterMEASURE implementation plan/concept note and coordinate with the Government of Sri Lanka the approval to undertake CounterMEASURE activities in Sri Lanka. |
| MYANMAR FOCAL AREA [NOTE: ACTIVITIES UNDER REVIEW (1ST QUARTER 2021)] | |
| <i>Knowledge Generation</i> | <ul style="list-style-type: none"> Develop proposal for a scoping survey for one river in Myanmar to present to the Government of Myanmar for approval. Conduct a preliminary analysis to identify the river for the CounterMEASURE project and to further identify activities to generate knowledge on plastic pollution in rivers Provide a preliminary report to the Government of Myanmar to be able to conduct a detailed study with approval of river basin and locations. |

| KNOWLEDGE MANAGEMENT FOCAL AREA | |
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| <i>Knowledge Dissemination</i> | <ul style="list-style-type: none"> • Conduct a series of webinars and training on the CM2-identified technologies and policy options. • Develop a community mapping tool and connect to the data-sharing platform backend database. • Publish a peer-reviewed version of the Conceptual Framework for Plastic Leakage Assessment and Monitoring in Rivers in Asia guided by the project's Science Advisory Group (SAG) and with input from partners of the Mekong and the Ganges Focus Areas. • Design, develop, launch and operate a web-based knowledge platform to promote information sharing and learning and to build and facilitate a dynamic community of practice for combating plastic pollution in rivers while ensuring synergy with other UNEP plastic pollution initiatives and those of Japan's supplementary budget. • Develop the frontend of the data-sharing platform in consultation with users through updating information on hotspots and pathways with data collected under Result 1 and with the exploration of supplementary data collection and community-based mapping tools. • Integrate the CounterMEASURE data-sharing platform with version 1 of the Marine Litter Measurement and Collaboration Digital Centre, led by IBM and UNEP. • Build a backend database of the CounterMEASURE data-sharing platform to serve multiple platforms including ESCAP's Closing the Loop and the World Bank's project in South Asia. |
| OUTREACH, VISIBILITY AND COMMUNICATION FOCAL AREA | |
| <i>Knowledge Dissemination</i> | <ul style="list-style-type: none"> • Conduct a perception survey and based on its findings, develop a communication plan for "plastic-free rivers" in the Mekong and implement outreach activities (e.g. press tour programme, localized anti-plastic pollution campaigns) • Develop an outreach and visibility plan for CM2, including planning for dissemination capacity in local languages, including Japanese, with a focus on: <ul style="list-style-type: none"> <input type="checkbox"/> Implementation of UNEA resolutions (CPRs on countries' efforts in Asia and the Pacific toward relevant UNEA resolutions and national targets). <input type="checkbox"/> Implementation of the G20 Implementation Framework for Actions on Marine Plastic Litter and Osaka Blue Ocean Vision (input to communiqués of Ministerial meetings on marine plastic litter as part of the preparatory processes of the G20 Summit in 2022 in Indonesia). <input type="checkbox"/> UNEP-led Beat Pollution global campaign and website at https://www.unenvironment.org/beatpollution/ <input type="checkbox"/> UNEP's 50th anniversary in 2022. • Capture and share compelling stories on the project's progress/achievements/products, rooted in empirical evidence and produced in simple language, and share via relevant channels and partners in advance of key events targeting global and regional audiences. • Produce and disseminate opinion pieces, video and/or written interviews with development leaders, policy briefs, and press releases surrounding key events to drive a reduction in plastic leakage into Asian rivers. • Orchestrate virtual discussions (e.g. Twitter Chats or webinars) to create momentum around key events. • Run social media communication campaigns for high-level engagement events to promote CM2's work amongst the general public with a toolkit for partners to maximize campaign reach and audience. |
| POLICY SUPPORT AND ADVOCACY FOCAL AREA | |
| <i>Knowledge for Policy</i> | <ul style="list-style-type: none"> • Establish an Asia-Pacific Working Group on Science, Technology & Policy and prepare and disseminate products that showcase insights gained through CM2 on technologies and policy options (e.g. standardization of technical terminologies on plastic pollution/marine plastic litter; use of advanced technology in plastic leakage analysis including drone and artificial intelligence analysis ; microplastic sampling and analysis in rivers; and effectiveness of bioplastic and biodegradable plastic for the reduction of marine plastic pollution). |

- Prepare a technical paper on use of disposable plastics and community infection of COVID-19 jointly with WHO SEARO, WHO Thailand, and WHO WPRO.
- Develop factsheets and conduct webinars to advocate for the implementation of the G20 Implementation Framework for Actions on Marine Plastic Litter and UNEA resolutions concerning marine litter and microplastics in G20 countries and in Asia and the Pacific in partnership with entities such as the International Resource Panel (IRP), the UN Economic and Social Commission for Asia and the Pacific (ESCAP), and the South Asia Co-operative Environment Programme (SACEP)
- Facilitate dialogues and engage the Plastic Waste Partnership (PWP) working group of the Basel Convention, the UN Economic Commission for Europe (UNECE) Water Convention, the Impact Metrics Working Group of The Circulate Initiative, the Alliance to End Plastic Waste (AEPW), and selected industry associations (e.g. World Instant Noodles Association [WINA]) to promote the streamlining of efforts to reduce plastic leakage into rivers and plastic pollution in Asia.
- Organize High Level Dialogues with CEOs on marine plastic litter/plastic pollution on the margins of high-level for a, including G20 ministerial meetings in Italy in 2021 and Indonesia in 2022.

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ANNEX: COUNTERMEASURE I PRODUCTS

INDIA

- ✓ Desktop Review of Plastics and Plastic Pollution in India
- ✓ Plastic Leakage Scenarios for Selected Locations in Identified Cities/Study Area
- ✓ Guidance Tutorial for Microplastic Assessment
- ✓ Microplastic Assessment Report
- ✓ Guidance Tutorial for Macro plastic Assessment
- ✓ Counter Measures Report
- ✓ Plastic Leakage Assessment Toolkit
- ✓ City-level reports and data collected – Agra, Haridwar, Allahabad and Mumbai
- ✓ Perception Survey report
- ✓ NDTV video clips - Silent Flows the Yamuna, Save Our Ocean, Lifeline Ganga, We The People: How To Address India's Plastic Waste Problem?

MEKONG

- ✓ Desk review of methodologies available for identification and quantification of plastic waste leakage into rivers and ocean
- ✓ Data inventories for Chiang Rai, Vientiane, Ubon Ratchathani, Phnom Penh, and Can Tho
- ✓ Plastic Leakage Analysis
- ✓ Survey on Microplastic Leakage in the Mekong River Basin
- ✓ Aerial image analysis report
- ✓ Mekong River Commission (MRC) Workshop report
- ✓ Capacity mapping report
- ✓ Plastic pollution analysis in Mekong – Factsheet
- ✓ Press Tour Report

REGIONAL/GLOBAL:

- ✓ Framework for Plastic Leakage Assessment and Monitoring in Rivers in Asia
- ✓ Report on The Expert Group Meeting for the project “Promotion of action against marine plastic litter in Asia and the Pacific”
- ✓ CounterMEASURE GIS Platform with Dashboard
- ✓ Infographic: Plastic leakage hotspots and pathways
- ✓ Final stakeholder meeting report
- ✓ CounterMEASURE Video