

Official Report "High-Level Roundtable Discussion on Plastic Waste Management Challenges and Solutions in the Bhutan"

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High-Level Roundtable Discussion | Bhutan | 8 October 2024



Event: High-Level Roundtable Discussion

Theme: Plastic Pollution Interventions in the Bhutan

Topic: High-Level Roundtable Discussion on Plastic Waste Management Challenges and Solutions in Bhutan

Date: 8 October 2024

Venue: Terma Linca, Thimphu, Bhutan

Moderators:

- 1. Ms. Sonam Chuki, Environment Officer | Department of Environment & Climate Change, Ministry of Energy and Natural Resources
- 2. Mr. Nalaka Gunawardene, Senior Communication Consultant | World Bank

Discussants: Ministers and Senior Government Officials from the Royal Government of Bhutan (RGoB), Representatives from the United Nations Agencies, Multilateral Agencies, International Development Banks, Civil Society Organizations, Private sector, Deesung, and Grantees.

RGoB	Royal Government of Bhutan	
MoENR	Ministry of Energy and Natural Resources	
DECC	Department of Environment and Climate Change	
SACEP	South Asia Co-operative Environment Programme	
MRF	Material Recovery Facility	
CSO	Civil Society Organizations	
WHO	World Health Organization	
UNDP	United Nations Development Programme	
UNOPS	United Nations Office for Project Services	
PLEASE	Plastic Free Rivers and Seas for South Asia	
WB	World Bank	
ADB	Asian Development Bank	

ABBREVIATIONS and ACRONYMS

Introduction:

As part of supporting the circular use of plastic in the economy through meetings of representatives from public and private sectors, the Plastic Free Rivers and Seas for South Asia (PLEASE) Project convened a High-Level Roundtable Discussion on Plastic Waste Management – Challenges and Solutions in Bhutan on 8 October 2024 in Thimphu, bringing many stakeholders together to share and flag responses and initiatives to address plastic pollution in Bhutan. At the Roundtable Discussion, initiatives implemented under the PLEASE Project were also showcased.

PLEASE is a regional project funded by the World Bank and implemented in six countries in the South Asian Region (SAR), namely, Bangladesh, Bhutan, Maldives, Nepal, Pakistan, and Sri Lanka – to coordinate action and assist the region's gradual transition to a circular plastic economy. The PLEASE Project is implemented by the South Asia Cooperative Environment Programme (SACEP), supported by the United Nations Office for Project Services (UNOPS). The goal of the multi-stakeholder Roundtable Discussion was to facilitate knowledge sharing about various ongoing interventions in plastic waste management in the region and to achieve greater synergies in tackling and responding to the issue of plastic waste.

The objectives of the Roundtable Discussion were to:

- Discuss policy and regulatory matters and challenges related to waste and plastic waste in the context of Bhutan
- Showcase initiatives by international development partners
- Present Initiatives by PLEASE Grantees and wider civil society and private sector perspectives on the issue
- Bring on board all the stakeholders and strengthen synergies in tackling plastic waste in the country
- Create a platform for discussing policy and regulatory measures to address plastic pollution in Pakistan, engaging different stakeholders
- Identify existing interventions and innovations in plastic waste management within Pakistan, as well as discuss strategies for scaling up successful initiatives and overcoming challenges
- Explore opportunities for regional collaboration in plastic waste management, particularly in the context of South Asia, leveraging shared experiences and resources
- Promote greater coordination among government bodies, development funders, corporate sponsors, and international organisations active in this sector, aiming to reduce duplication of efforts, optimise resource utilisation, and enhance the impact of plastic waste management initiatives

Roundtable Discussion Brief:

Opening Remarks

Speakers:

- 1. Lyonpo Gem Tshering, Minister of Energy and Natural Resources
- 2. Norbu Wangchuk, Director General, SACEP
- 3. Dr. Bhupinder Kaur Aulakh, Country Representative of the WHO
- 4. Dr. Adama Coulibaly, World Bank Country Representative to Bhutan
- 5. Charles Rochford Callanan, Director South Asia, UNOPS South Asia Multi-Country Office.

In his keynote speech, **Lyonpo Gem Tshering**, **Minister of Energy & Natural Resources**, thanked the organizers for bringing experts in one room to discuss the pertinent issues of plastic pollution. He recalled how Bhutanese used indigenous materials such as woven cloth bags and natural degradable materials in the past and that plastics have replaced those traditional practices. He noted that not just rivers and seas but even farmlands have been polluted by plastic waste. He highlighted that plastic waste has posed a challenge even in hydropower dams and powerhouses. The Minister called for a collaborative approach from all sectors, Government and private, to come together to find sustainable solutions to the challenges of plastic waste.

Norbu Wangchuk, incoming **Director General of SACEP**, expressed his enthusiasm to attend the Roundtable Discussion on his first day of assuming his duty in his new position, surrounded by authority, resources, expertise, network and stakeholders across the spectrum. He further said that it is an honour to join forces to contribute towards this global cause and tackle this pressing issue through regional collaboration. He added that no single country or entity could tackle this complex challenge alone. The Director General also noted that a key responsibility of SACEP is to nurture regional collaboration across various sectors and actors to avoid losing sight of a safer, resilient future for all.

Representing the United Nations Resident Coordinator's office in Bhutan, the acting a.i. **Dr. Bhupinder Kaur Aulakh**, **WHO Representative to Bhutan**, noted that a behavioral change to reduce plastic consumption is important to prevent plastic waste from polluting rivers, seas, mountains, and landscapes, affecting water and aquatic life, and concerning microplastic.

She highlighted that recycling alone would not solve the issue unless we changed our consumption patterns and behaviors and reduced plastic consumption. On behalf of WHO, she fully committed to reducing plastic in the environment and participating in the Roundtable Discussion.

Dr. Adama Coulibaly, the **World Bank Representative to Bhutan**, stated that the Roundtable Discussion was meant to facilitate knowledge sharing and encourage collaboration among multiple stakeholders—government, private sectors, CSOs, academia, and others—with the ultimate objective of discussing challenges and exploring viable solutions. In Bhutan, like elsewhere, waste management remains an issue of national concern.

Dr. Adama said that while waste generation grows alongside the pace of urbanization, the lack of proper disposal solutions led to land and water pollution, with microplastics finding their way into wildlife and domestic life. He said that the growing problem of plastic waste was identified in Bhutan Country Environmental Analysis, released by the World Bank in November 2024. He recognized the plastic leakage into the environment as an emerging risk to Bhutan's pristine environment and aquatic ecosystem.

According to the report, Bhutan's plastic consumption was estimated at 18,000 tonnes yearly and plastic waste generation at 14,000 tonnes yearly. The largest portion of the plastic waste came from the packaging, representing 52% of the consumption and 63% of plastic waste generation. Increasing pollution and lack of effective waste management solutions emerged as additional environmental challenges that exacerbated climate mitigation and adaptation efforts. Plastics substantially contributed to global greenhouse gas emissions, which have caused impacts on human-induced climate change.

The plastic industry accounted for about 6% of global oil consumption and was expected to reach 20% by 2050. In response, the WB was stepping up its engagement in the sector, working closely with SACEP to support the PLEASE Project. The project aimed to boost innovation and coordinate circular

economy solutions to help reduce plastic pollution. The solutions included scaling up plastic recycling and promoting alternatives to single-use plastics.

Dr. Adama further noted that the PLEASE Project collaborated with local communities and authorities in Bhutan to implement sustainable practices to protect Bhutan's rivers and natural landscapes from plastic waste.

The project has competitively awarded grants to five Bhutanese organizations that aimed to reduce plastic pollution by improving waste management systems, enhancing recycling, and raising public awareness.

The National Waste Management Flagship Programme, endorsed by the Royal Government of Bhutan in 2020, aimed to achieve 'Zero Waste Bhutan by 2030' and was aligned with the national waste management strategy in 2019. In this effort, zero waste involved effective source segregation and maximum material recovery, with only a maximum waste of 20% requiring safe disposal. It is imperative to build proper waste solutions, including sanitary landfill infrastructure or waste-to-energy facilities. In urban areas, the collected waste is often disposed of at a common dump site due to a lack of solid waste management infrastructure, including engineered landfill sites. Policies to address plastic pollution and plastic waste management must be consistently enforced, and each country needs to strengthen its capacity to create a circular plastic economy.

Tackling plastic waste is a global concern. Since 2022, governments have been negotiating to develop an international legally binding instrument on plastic pollution, including the marine environment. The Intergovernmental Negotiating Committee (INC) for the plastic treaty has already met four times. The plan is to meet again in Busan, South Korea, in late November 2024, hoping to finalise and adopt a new treaty addressing the entire plastic lifecycle.

He submitted that it was critical to initiate a collective effort that involved the government, NGOs, CSOs, the private sector, and all the stakeholders to tackle the plastic waste problem. A concerted effort, strong collaboration, and knowledge sharing of best practices among countries and partnerships between development organizations would promote sustainable development with healthier communities, protect ecosystems and biodiversity, and make the planet more livable.

Charles Rochford Callanan, Director, South Asia Multi-country Office (SAMCO), UNOPS, sent a recorded video message to be streamed at the Roundtable Discussion stating that UNOPS was committed to addressing vital environmental issues in plastic and solid waste management and air pollution in ways that promoted a circular economy and climate resilience.

He said the five grants of the PLEASE project in Bhutan, amounting to 2.9 million dollars, were developing and implementing several innovative waste management solutions. These included the waste banks incentivizing waste collection, establishing recycling factories to produce eco poles from waste plastic and shredding, and installing waste trappers in streams to prevent waste plastics from

flowing into the river in the capital city, Thimphu. Innovations also included manufacturing construction bricks from waste plastic and scaling up technology to produce polyester wool and fiber from waste plastics. Another initiative was investing in machines and technology to use waste plastic in road surfacing and produce flower pots and 3D printing filaments. Additionally, efforts were being made to intercept and recover waste through material recovery facilities, ensuring proper segregation and support for local businesses in the circular economy.

He presented that UNOPS's goal was to continue supporting the Royal Government's priorities, including those of the Ministry of Energy and Natural Resources and solid waste management.

The Roundtable Discussion was structured into three rounds of discussion, each focusing on a specific theme:

Round 1: Policy and regulatory matters and challenges in the context of Bhutan

Round 2: Showcasing initiatives by international development partners

Round 3: Initiatives by Grantees and wider civil society and private sector perspectives on the issue.

Round 1: Policy and regulatory matters and challenges for waste management in Bhutan

Environment Officer of the Waste Management Division of the Department of Environment and Climate Change, Mr. Jigme Gyambo, presented that at the heart of Bhutan's waste management efforts was Article 5 of the Constitution of Bhutan that emphasized that every Bhutanese was not just a consumer but a trustee, entrusted with a duty to safeguard natural resources for future generations. It was a sacred responsibility extending beyond policy to deeper cultural values embedded in Bhutanese society.

Setting the legal framework, Bhutan developed and endorsed the Waste Prevention and Management Act of 2009, followed by its regulation in 2012, which was subsequently amended in 2016. This was followed by the National Waste Management Strategy 2019, which outlined the pathway towards reducing waste at the source, diverting it from landfills, and building a circular economy where materials are reused, recovered, and recycled.

He stated that achieving Zero Waste in Bhutan by 2030 was ambitious but achievable, but achieving this required collaboration across sectors, public, private, civil society and international partners. He called upon the gathering to rethink and reorient their perception so that landfills were no longer seen as the final destination for waste but rather as a last resort.

Bhutan has introduced innovative tools like the Zero Waste Bhutan app, a digital system to help ensure accountability and reinforce the idea that waste management is everyone's responsibility.

Alongside technological solutions, community-driven initiatives like Zero Waste Hour were launched, and communities across Bhutan dedicated at least one hour to cleaning their local environments as a collective action. The vision was to inspire behavioral changes, nurture a society where waste

management became second nature to every citizen, and ensure that future generations inherit a cleaner and more sustainable Bhutan.

Jigme Gyambo said the municipalities followed their respective waste management plans. Waste collection was carried out throughout the week, and the public was informed of the waste collection truck's timing as well as the alternatives for dry and wet waste collection.

Hari Bhandari from the National Waste Management Committee under His Majesty's Secretariat said the waste segregation at the household level was initially successful due to an extensive campaign and sensitization of the general public. However, the sensitization and awareness lacked continuity, resulting in a decreased response and participation from the public on waste segregation at the household level. He said the other critical need was infrastructure in the form of MRFs to promote waste segregation and recovery so that it does not end up in the landfill as an end-to-end solution.

The Director of the Department of Environment and Climate Change, Sonam Tashi, raised concerns over the efficiency of waste collection services being provided by the private sector and the need to overcome the last mile hurdles in waste segregation and collection. He noted that the Memelakha Landfill had long been a subject of discussion due to exceeding its intended lifespan. Given the urgency of the situation, he emphasized the need to identify and implement a sustainable solution, such as adopting advanced and appropriate technology.

Penalizing the public for failing to follow proper waste management practices was not a viable solution. Instead, fostering community engagement in plastic waste management proved to be more effective and impactful. The discussion also highlighted a significant gap in reliable data on the quantity and types of waste generated in Bhutan. This underscored the urgent need to update and maintain accurate, comprehensive data to inform effective waste management policies, support long-term planning, and ensure greenhouse gas emissions remain aligned with the country's carbon neutrality commitments.

Participants discussed the need to enhance the circular economy to tackle plastic waste and the process of behavioral change among the public on plastic consumption through various means, including economic benefits. Converting waste to energy was also an area that could be further explored.

Regarding efforts to reduce plastic consumption, discussions centered on the lack of viable and convenient alternatives. Bhutan imports all its plastic, and as a small economy heavily reliant on imported goods, regulating plastic use remains challenging. Initiatives like the plastic ban introduced in 1999 have faced difficulties in enforcement due to these structural constraints.

The moderator highlighted that these were common challenges among smaller economies like Bhutan, Maldives, and Sri Lanka, where goods importers were not willing to change their ways to support initiatives to reduce plastic consumption. The discussion then focused on whether Bhutan was considering Extended Producer Responsibility (EPR) to ensure responsibility from plastic producers required careful analysis and understanding of how it could be implemented without disrupting the nascent Bhutanese industries and in the context of Bhutan's import-driven economy. With 80% of goods being imported after being bought in an open market, it was difficult or challenging to determine who pays or is responsible for EPR. It was pointed out that the EPR in Bhutan needed a careful analysis to avoid taxing people repeatedly.

In this context, **Senior Environmental Specialist at the World Bank**, **Joseph Akpokodje**, emphasized the need for technical support (TA) in Bhutan to assess the plastic value chain and develop a comprehensive policy and regulatory framework. This approach would address not only plastic solid waste management but also the broader economic aspects of plastic use. He highlighted the importance of implementing various EPR models to shift part of the financial burden of waste management from the government to private companies.

Environmental Specialist from the World Bank Bushra Nishat added that there were various models of EPR, not all focusing on plastics waste but other waste streams, such as e-waste, medical waste, etc., but there was a need to review the existing policy framework to see if it also extends to EPR.

EPR helps to shape some of the financial responsibilities of waste management from the government to private companies.

Key Takeaways:

- Collaboration among the stakeholders was necessary to achieve the objective of a zero-waste agenda and eliminate the final destination of waste to landfill.
- Community-driven initiatives should be encouraged for greater impact on behavioural change on waste management, to be incentivized rather than penalized.
- Waste segregation at source was slowly picking up, but support was necessary from the municipalities and the departments to have the necessary infrastructure and systems in place.
- There was a need for end-to-end solutions and better services provided by the private sector in waste collection and management. The focus should be on enhancing efficiency rather than penalizing the public for waste generation.
- There is a need to update the National Waste Inventory data, the last update was in 2019, before the COVID-19 pandemic.
- Behavioral change in waste management was difficult to achieve, so it is important to discuss and promote circularity. Waste is a source of energy and resources, and there is room for innovative solutions.
- Plastic waste is a global problem that requires a global solution. Simply banning plastic like RGoB did in 1999 did not work as there were no alternatives to plastic at the time.
- For Bhutan, the time has come to implement EPR: the government needs support to establish policies and a regulatory framework.

Round 2: Showcasing initiatives by international development partners in waste management

The Representative to Bhutan UNDP, Sonam Y. Rabgye, shared that UNDP had a long-standing partnership with the government of Bhutan, and in 2019, it was able to produce a nationally determined contribution and high-emitting sectors to understand the gender climate nexus and how it affected women and men differently in the waste sector.

The study recommended ensuring women's participation at all levels, as the waste sector was mostly dominated by women, on occupational health and safety, and on promoting and enhancing education and awareness raising, improving support systems, and service delivery for sustainable waste management.

The representative added that UNDP had also been supporting the establishment of waste drop-off centres and waste storage facilities in Thimphu and Paro districts. The UNDP supported the government in managing medical waste, developing the Low Emission Development Strategy for human settlement with the Ministry of Infrastructure and Transport, conducting social experiments on waste by applying behavioural insights research, and having ongoing projects like the infectious waste management project.

The sharing from various development partners in Bhutan at the Roundtable Meeting was geared towards understanding the role and inputs they provided to the Government of Bhutan in waste management to avoid duplication of effort, investment, and resource allocation.

It was stated that it was critical to ensure that there was effective coordination, collaboration and synergies amongst the various stakeholders, donors, development partners, and their projects that are brought in with the same objective of solid waste management, plastic waste management, and circular economy. For this, collaboration with the Ministry of Finance – the aid coordinating agency in Bhutan, was necessary for the whole continuum from designing projects and proposals to their implementation to avoid duplication of effort and the risk of wasting resources.

The discussion concluded with the **Project Director of PLEASE Project, Anjalie Deveraja** who highlighted that waste management was a continuous process and would require an integrated solution. She mentioned that the discussion was also helpful in shaping the next component of the project, which entailed TA support for the Royal Government of Bhutan, among others, in developing waste management master plans, regulatory frameworks, and policies.

Key Takeaways:

- International development partners are supporting waste management efforts, but proper coordination and collaboration is needed to avoid duplication.
- Donor support needs to ensure proper alignment with national priorities, which in turn requires coordination by the Ministry of Finance, RGoB.

- Importance of strengthening public-private partnerships (PPP) in waste management.
- Strengthening support for the Ministry of Health in tracking and managing healthcare waste was essential for effective waste management and public health safety.
- Thimphu's growing population will lead to increased waste generation, highlighting the need for a more coordinated and proactive approach to waste management solutions.
- The World Bank could support the government in developing a comprehensive Waste Management Master Plan and provide technical assistance (TA) to enhance its implementation.

<u>Round 3: Initiatives by Grantees in Bhutan and wider civil society and private sector</u> <u>perspective</u>

The **Bhutan Ecological Society (BES)**, recipient of a Regional Block Grant under the PLEASE Project, presented its innovation of setting up Waste Storage facilities in Thimphu, setting up Waste Trappers/Interceptors among the streams feeding into Wangchhu or Thimphu Chhu – the river that flows through the city of Thimphu, and on setting up a plant in Bjemina Industrial estate to make bricks from waste plastic for semi-permanent and mobile structures, and a PET shredding factory.

Greener Way, another recipient of a Regional Block Grant and a private business entity in the waste sector in Bhutan, was establishing Bhutan Waste Banks in the waste drop-off centres of Thimphu Thromde (second-level administrative division) to incentivize waste or pay for segregated plastic waste from the public of Thimphu. The Regional Block Grant (RBG) was also supporting the setting up an Eco Pole making plant where plastic waste would be used to make poles for use in fencing, traffic delineators, etc., and a Polyethylene Terephthalate (PET) Shredding factory at Memelakha in Thimphu.

Innovation Grant recipient **Clean Bhutan**, a CSO working with women in the waste sector in Bhutan, described how they are scaling up their technology and machinery to produce polyester wool from waste plastic under the project. The project supported Clean Bhutan in procuring machines to produce polyester wool from shredded waste PET.

Another Innovation Grant recipient, **Green Road**, was also, with the project support, procuring plastic waste shredding machines and technology to use waste plastic in road surfacing, making flower pots and 3D-printing filament from waste plastic, and more.

The third Innovation Grant recipient, the **Eco Waste Solution** based in Wangduephodrang district, was scaling up its material recovery facility (MRF) to intercept and recover waste from going to the landfill, and, through proper segregation and sorting, supply it to local vendors and businesses engaged in waste plastic circular economy.

Key takeaways:

• The Roundtable Discussion highlighted the pervasive nature of plastics, which are present in mountains, seas, landmasses, and probably inside human bodies in the form of microplastics.

Participants stressed the need for comprehensive, circular solutions that go beyond recycling and focus on reducing and reusing plastic waste and addressing consumption patterns.

- Bhutan's waste management policy landscape was reviewed, revealing the evolution of various policy solutions involving both punitive and non-punitive measures for behavior nudging.
- Bhutan has taken various measures regarding plastic waste and solid waste management, such as the 1999 plastic bag ban, the 2019 national waste management strategy, and the ambitious Zero Waste Bhutan initiative.
- Policies must be tailored to Bhutan's unique context, considering factors such as its small economy and reliance on imports. While mechanisms like EPR have been effective elsewhere, their implementation in Bhutan should account for the country's economic scale and international trade dynamics, particularly with neighboring countries.
- Regulatory gaps in recycling standards and product safety highlight the need for robust policies to ensure safe, sustainable, and efficient plastic recycling practices.
- Various development partners collaborated with the Royal Government of Bhutan on environmental protection and waste management. The Roundtable Discussion emphasized the need to align efforts, avoid duplication, and enhance complementarities to maximize impact.
- The five PLEASE grantees in Bhutan were actively contributing to plastic waste reduction through awareness campaigns, advocacy, and innovative initiatives. Their efforts included piloting a cash-for-trash model for plastic waste segregation and recycling plastics into products such as plastic bricks, wool, and eco-poles.
- Concerns were raised about the sustainability of initiatives supported by the PLEASE project after its completion. Strengthening PPPs was identified as a key strategy to ensure their long-term viability.

Conclusion:

To mitigate the problems of plastic waste management at the national and regional levels in Bhutan, the participants unanimously agreed on the power of collaboration among all stakeholders, whether it be an intergovernmental panel, local and national regulatory entities, private sectors, academics, donor and development partners, and civil society. Collaboration with the national government, bilateral partners, development agencies, and investors is essential for success.

The participants highlighted the importance of enhancing coordination between various levels of government and leveraging data-driven approaches for effective policymaking. Integrating technological innovations and investment in sustainable practices will be pivotal in managing plastic waste. EPR schemes, alongside financial mechanisms such as carbon credits and green bonds, are essential in promoting accountability and securing necessary resources.

Ongoing dialogue and technical cooperation among stakeholders, including adopting collaborative models like PPPs, will facilitate progress. The private sector's engagement in waste management discussions and the exploration of novel funding mechanisms are critical for advancing these efforts.

The World Bank's initiatives and regional cooperation models could serve as benchmarks for further action.

The discussion concluded with a collective commitment to addressing plastic pollution through continuous, collaborative efforts.

Annex 1: Agenda

Timestamp	Segment	Description
15:00 - 15:30	Opening Remarks	 Lyonpo Gyem Tshering, Minister, Ministry of Energy and Natural Resources Norbu Wangchuk, Director General, SACEP Dr. Bhupinder Kaur Aulakh, (Representative), WHO Adama Coulibaly, Country Representative, World Bank Charlie Callanan, Director, UNOPS South Asia Multi-Country Office (SAMCO) (video record)
15:30 - 16:15	1st Open Discussion [45 mins]	Theme: Policy and regulatory matters related to plastic waste management (state sector representatives) Presentation 10 mins Presentation on the Policy and Regulatory Framework for Waste Management in Bhutan by the Department of Environment and Climate Change, Ministry of Energy and Natural Resources. (Jigme Gyembo, Environmental Officer, DECC) Open Floor Discussion 35 mins
16:15 - 17:00	2nd Open Discussion [45 minutes]	Theme: Initiatives by Bilateral and Multilateral Development Partners (UN and donor Agency Representatives) Speaker 5 mins each 1. UNDP, Sonam Rabgye

17:00 - 17:45	3rd Open Discussion [45 mins]	Theme: Showcasing work by corporate and civil sectors Presentation 05 mins each
		 Presentation – Bhutan Ecological Society (Key activities and Milestone of the PLEASE Project) by Phub Dorji, Communication Officer.
		 Presentation - Greenerways (Key activities and Milestone of the PLEASE Project) by Diksha Adhikari, Project Manager.
		<u>Speakers 05 mins each</u>

Annex 2: List of Participants

Participants from the Royal Government of Bhutan

- 1. Hon'ble Minister Gyem Tshering, Ministry of Energy and Natural Resources, Thimphu,
- 2. Dasho Paljor Jigme Dorji, Special Advisor, DECC, Ministry of Energy and Natural Resources, Thimphu,
- 3. Lhatu, Chairperson, Environment and Climate Change Committee, National Assembly
- 4. Sonam Tobgye, Cabinet Director, Office of the Prime Minister and Cabinet
- 5. Chencho, Director, Cabinet, PMO, Thimphu,
- 6. Dechen Yangden, Director, Department of Water, MoENR, Thimphu
- 7. Karma Tenzin, Director, Department of Forest and Park Services, MoENR, Thimphu
- 8. Dechen Dema, Director, Department of Energy, MoENR, Thimphu
- 9. Phuntsho Namgyal, Director, Department of Geology and Mines, MoENR, Thimphu
- 10. Tashi Gyelsten, Representative(Director), Bhutan Construction and Transport Authority, MoIT, Thimphu,
- 11. Karma Penjor, Ministry of Finance
- 12. Tashi Penjor, Director, Ministry of Infrastructure and transport
- 13. Sonam Tashi, Director, DECC, MoENR.
- 14. Sonam Tenzin, Director, National Statistical Bureau, Thimphu
- 15. karma Jamtsho, Director, Department of Public Health, MoH, Thimphu
- 16. Tandin Dorji, Chief Program Officer, Dessung, Thimphu
- 17. Passang Tshering, Director, City Bus Service, Thimphu
- 18. Tandy Wangchuk, President, Bhutan Chamber of Commerce and Industry
- 19. Namgay Wangchuk, Managing Director, BTFEC,
- 20. Phub Dorji, Dzongda, Dzongkhag Administration, Thimphu
- 21. Jigme Gyembo, Environment Officer, DECC, MoENR

- 22. Sonam Chuki, Environment Officer, DECC, Thromde, Thimphu
- 23. Environment Officer, Dzongkhag Administration, Thimphu
- 24. Phub Rinzin, Dzongda, Dzongkhag Administration, Wangduephodrang,
- 25. Pelden Lhamo, Environment Officer, Dzongkhag Administration, Wangduephodrang
- 26. Hari L Bhattarai, Representative, Waste Management Committee, His Majesty's Secretariat
- 27. Chief, Climate Change Division, DECC, MoENR
- 28. Sachin Limbu, Offtg.Chief, Environmental Assessment and Compliance Division, DECC, MoENR
- 29. Environment Specialist, DECC, MoENR

Participants from UN Agencies, Bilateral and Multilateral Agencies, CSOs and NGOs

- 30. Sonam Zam, Representative, ADB, Bhutan
- 31. CEO, Bhutan Foundation, Thimphu
- 32. Representative to Bhutan, UNICEF Bhutan
- 33. Bhupinder Kaur Aulakh, WHO Representative, UN Resident Coordinator Office, Thimphu
- 34. Sonam Y. Rabgye, Representative to Bhutan, UNDP, Thimphu
- 35. Sonam Tobgay, President, Bhutan Rotary Club, Thimphu
- 36. Kinley C. Tenzin, President, Loden Foundation, Thimphu
- 37. Lhatu, Executive Director, Gross National Happiness Center, Thimphu
- 38. Krishna Adikari, Founder, Green Bhutan Services, Thimphu
- 39. Namgay Wangchuk, Founder, Trashnology Toppers, Thimphu

Participants from the Private Sector

- 40. Pema Gyeltshen, CEO, Druk Waste Management, Paro
- 41. Kinley Dorji, Druk Waste Management, Paro
- 42. Zeko, CEO, Sangsel Eco Trade and Environmental Services, Thimphu
- 43. Tshering Lhamo, CEO, Gross International Nature, Thimphu
- 44. General Manager, Green Bhutan Services, Thimphu
- 45. Gembo, CEO, Waste Warriors, Thimphu
- 46. Phub Dorji, CEO, Ngingor, Thimphu

<u>Media</u>

- 47. Sonam Yuden, Bhutan Broadcasting Service (BBS)
- 48. Thinley Namgay, Kuensel, National Newspaper

<u>Grantee</u>

- 49. Sonam Wangmo and team, Bhutan Ecological Society, Thimphu
- 50. Diksha Adikar and team, Project Manager, Greenerway, Thimphu

- 51. Rikesh Gurung and team, Green Roads Bhutan, Thimphu
- 52. Kinley Dorji and team, Eco Waste Solutions, Wangduephodrang
- 53. Nedup Tshering and team, Clean Bhutan, Thimphu

The World Bank

- 54. Joseph Escoghene Akpokodje, Senior Environmental Specialist, The World Bank
- 55. Burshrat Nishat, Environment Specialist, The World Bank
- 56. Nalaka Gunawardene, Senior Communications Consultant, The World Bank
- 57. Adama Coulibaly, Representative, The World Bank

SACEP

- 58. Norbu Wangchuk, Director General, SACEP
- 59. Anjalie Deveraja, Project Director, SACEP PLEASE PIU
- 60. Prakriti Kashyap, Plastic Expert, SACEP PLEASE PIU

UNOPS

- 61. Lian Zhang, Programme Management Advisor, Support to PLEASE Project, UNOPS Sri Lanka
- 62. Jamie Alarma Olomos, Project Management Support, Specialist, Support to PLEASE Project, UNOPS Sri Lanka
- 63. Sivakumaran Sithamparanathan, Technical Senior Officer Environmental, Specialist, Support to PLEASE Project, UNOPS Sri Lanka.
- 64. Dinithi De Alwis, Communications Officer, Support to PLEASE Project, UNOPS Sri Lanka
- 65. Harshani Bathwadange, Gender Specialist, Support to PLEASE Project, UNOPS Sri Lanka
- 66. Yasasi Gayara Rathnabarana, Grant Management Officer, Support to PLEASE Project, UNOPS Sri Lanka

Bhutan UNOPS Country Team

- 67. Kezang Lhamo Dorji, Project Management Support, Specialist, Support to PLEASE Project, UNOPS
- 68. Nusrat Shaheen, Technical Specialist, Environmist, Support to PLEASE Project, UNOPS
- 69. Bishal Rai, Project Management Support, Senior Associate, Support to PLEASE Project, UNOPS
- 70. Jigme Lhazin Dorji, Project Management Intern, Support to PLEASE Project, UNOPS

Annex 3: Media Coverage

1. <u>Kuensel</u>