

IGES Centre Collaborating with UNEP on Environmental Technologies (CCET)

**Second Sub-Regional workshop on Preparation of status
Report and sub-regional Roadmap for Implementing the
Global Waste Management Goals toward Addressing SDGS
in South Asia**

15-17 July 2019, Dhaka, Bangladesh



About IGES Centre Collaborating with UNEP on Environmental Technologies (CCET)

- **IGES** is established in 1998 under an initiative of the Japanese government aiming at *realizing sustainable development in the Asia-Pacific Region*
- Act as an *Agent of Change* who conducts research and impacts key policy processes such as climate change and SDGs.
- **CCET** was established under a MOU between UNEP and IGES in December 2014 to work together responding to
 - the United Nations Environmental Programme's Governing Council decisions (GC 25/8 and 26/3),
 - Rio +20 (paragraph 218 of the outcome document "The Future we Want"),
 - implementation of the Bali Strategic Plan for Technology Support and Capacity-building,
 - promote Pollution Free Planet, the Paris Agreement and SDGs **through sustainable waste management policies and systems.**



CCET involvement in Asia

Our Work

Leveraging its expertise in resource and waste management, CCET is providing technical support to United Nations Environment Programme through its International Environmental Technology Centre for the establishment of a Global Centre of Excellence on Waste Management. This includes delivering scientific, technological and policy relevant knowledge, as well as enabling networking and collaboration with key domestic and international partners.

1. Strengthening Waste Management Policy and Institutions

By engaging in a consultative dialogue with key stakeholders, CCET assists partner governments with the development of national and local waste management policies and strategies that address solid, liquid and gaseous waste in an integrated and complementary manner.



Myanmar

Waste management strategies and action plans developed by the Ministry of Natural Resources and Environment (MONREC) and Mandalay City Development Committee (MCDC) represent the country's first waste management policies enacted at respective national and city levels, demonstrating the political commitment that is necessary for expanding waste management services nationwide.



Cambodia

Ongoing governance reforms in Cambodia are contributing to the decentralisation of the country's waste management sector. Against this backdrop, national and city waste management strategies currently being developed by Ministry of Environment (MoE) and Phnom Penh Capital City are expected to comprise the first policy framework on waste management since the restructuring, driving effective implementation on the ground.



Maldives

CCET is assisting the Ministry of Environment and Energy (MEE) with developing a regional waste management strategy and action plan for the country's southern region, comprising 18 islands including the regional hub city of Addu. The strategy is expected to provide regional solutions, encouraging and complementing efforts led by individual islands to formulate their own waste management systems.



2. Building Capacity and Guiding Implementation

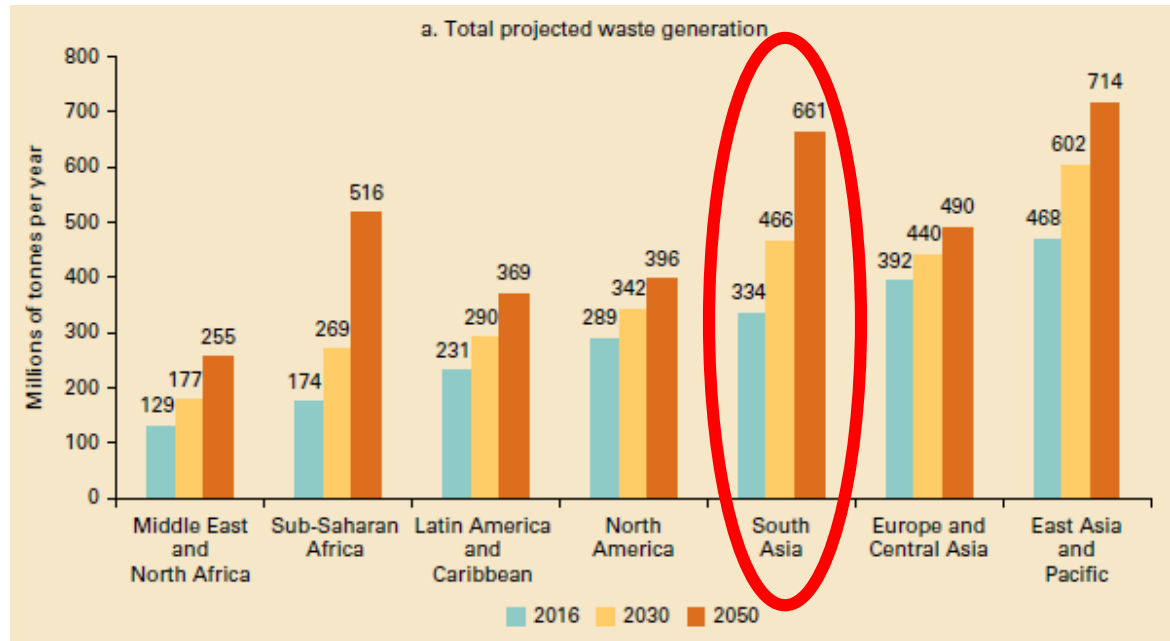


CCET also develops knowledge products such as case studies and policy recommendations, and conducts training courses (in-person and online) customised to specific capacity needs of policy makers and practitioners. A series of guidelines on selected waste management topics is now in the process of being launched with a view to enhance the planning and delivery of waste management operations through the introduction of systematic and stepwise approaches.

3. Generating Impacts through Partnerships and Networking

Why South Asia is a matter?

- South Asia Population is about 1.8 billion (**40% of Asia's population and 24% of the world's**)
- Total municipal waste generation was 334 million tons/year in 2016 and expected to be 661 million tons/year by 2050 (**highest waste generator with East Asia**)



Global/regional and sub-regional interventions for solid waste management

Global

SDGs

Paris Agreement

UNEA 4

G7/G20

Regional/sub-regional

Regional 3R Forum in Asia

SARC Countries

The Dhaka Declaration (10-12 Oct 2004),

The SAARC Action Plan on Climate Change (3 Jul 2008)

The 2010 convention on co-operation on the environment (28-29 Apr 2010)

Current Activities of CCET and IETC in S-Asia



Nepal and Bhutan (2017~)

- Development of Environmentally Sound Technologies to reduce climate change impacts from waste sector
- Development of environmental education tools for 4R in schools in Bhutan

India (2018~)

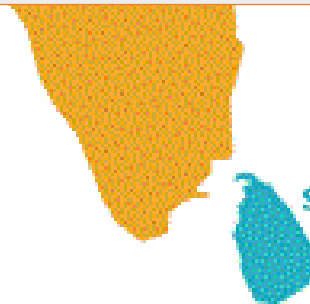
- Holistic Strategy and Action Plan for reduction of plastic waste in Hyderabad, India
- Pilot project implementation
- Documentation of good practices in Indore City



Maldives (2017~)

- Waste Management Strategy and Action Plan for Zone 6
- Pilot project implementation in 5 Island Councils

MALDIVES



Sri Lanka (2018~)

- National Waste Management Strategy and Action Plan (Guideline developments for selected waste management issues, such as plastic waste and landfill management)
- City Waste Management Strategy and Action Plan for Negambo
- Documentation of Good Practices

Importance of S-Asia Dialogue on Waste Management

(1) Understanding and awareness raising on the issue

- Preparation of status report of the waste management in S-Asia
- Development of roadmap and action plan strengthened a sub-regional cooperation in improving the waste management to achieve the SDGs and NDCs

(2) Initiation of actions at ground

- Assist national and city actions on priority areas in cooperation with other partners for actual implementation, monitoring and reporting

(3) Capacity building, Information and Knowledge Exchange

- South-South Cooperation through networking and knowledge exchange
- Sharing national / local experience and best practices (appropriate technologies, financial mechanisms , policy interventions...etc)

(4) Contribution to Regional and Global Policy Development

- Contributes to the key regional and global policy processes (S-Asia Ministerial Meeting (SACEP), Asia 3R Regional Forum, Asia-Pacific Forum on Sustainable Development (APFSD), High Level Political Forum on Sustainable Development...etc)

Implementation Plan and Follow-up Actions

**Mar-May,
2018**

- Preparatory works
- **Introductory meeting at 3R Forum, Indore (9-13 April, 2018)**

**Jan-Mar,
2019**

- Preparatory action and data collection for status report
- **1st sub-regional workshop in Nepal (25-26 Mar, 2019)**

**Aug-Nov,
2019**

- Preparatory work on finalising the status report and sub-regional roadmap
- **3rd sub-regional workshop in Sri Lanka (tentatively Sep, 2019)**

**Jun-Dec,
2018**

- Development of concept and implementation plan with SACEP and other key stakeholders
- **Discussion meeting at 5th Session of CED, ESCAP in Bangkok (21-23 Nov, 2018)**

**Apr-Jul,
2019**

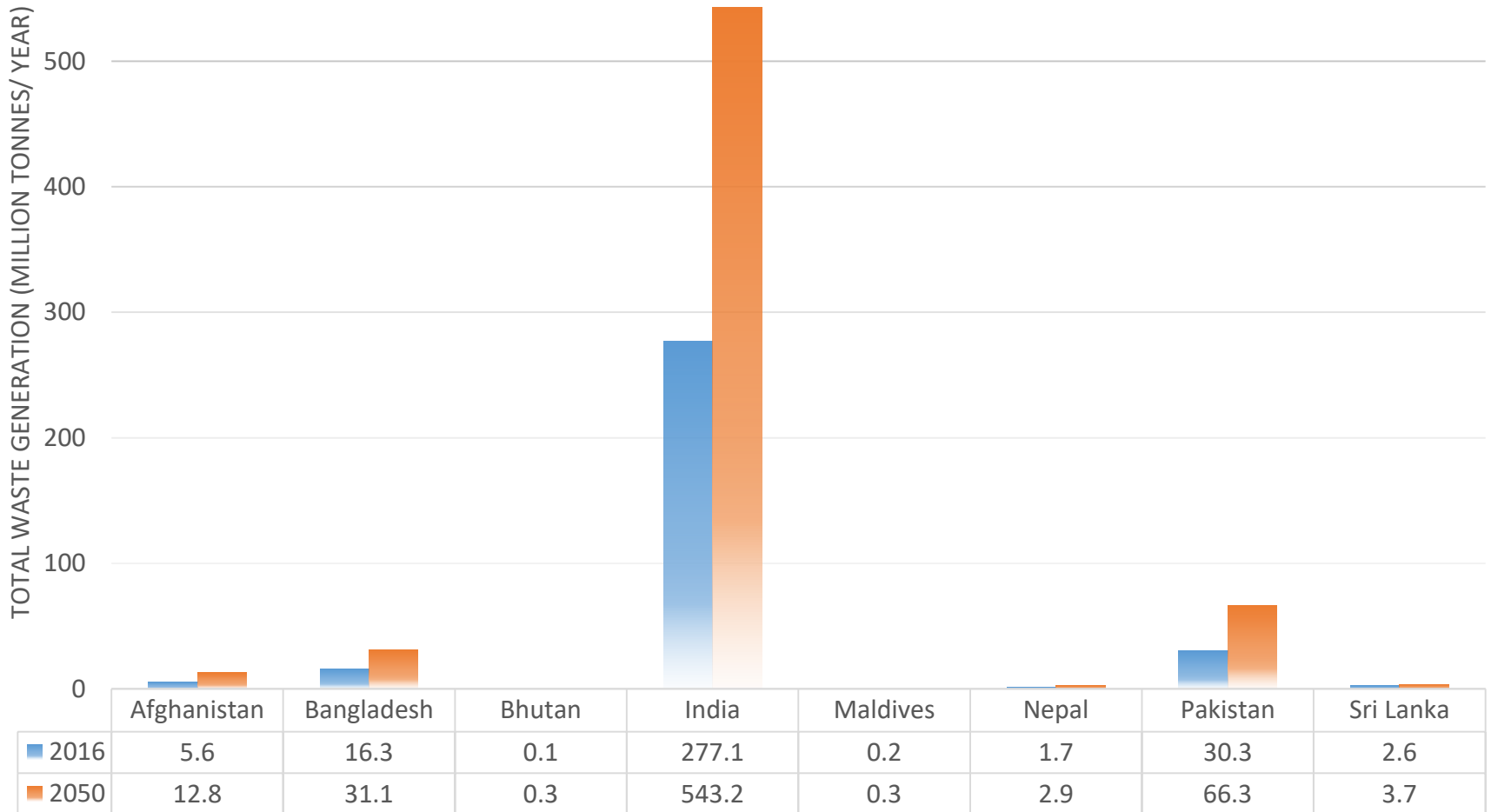
- Preparatory action on development of status report and draft Roadmap
- **2nd sub-regional workshop in Bangladesh (15-17 Jul, 2019)**

**Nov-Jan,
2020**

- Submission the status report and roadmap to the South Asia **Ministerial Meeting (Nov, 2019)**
- Discuss with relevant partners/international agencies for the implementation and monitoring

Results of quick study of CCET/SACEP with member countries

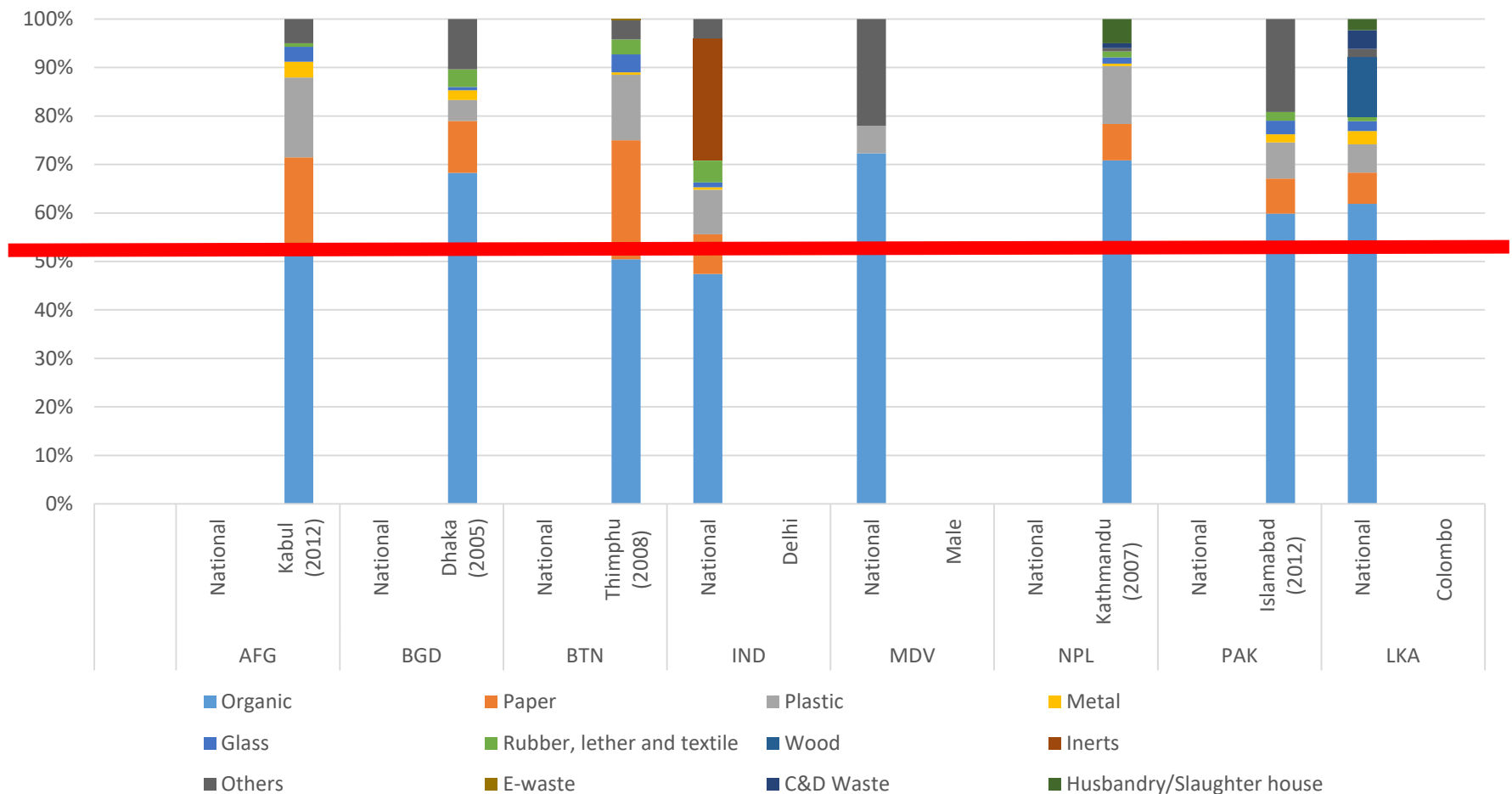
- (1) There is no proper data on waste generation, however, estimations shows waste generation will be doubled by 2050 if countries will not take waste reduction actions
- (2) India will dominate the increase followed by Pakistan and Bangladesh



Results of quick study of CCET/SACEP with member countries

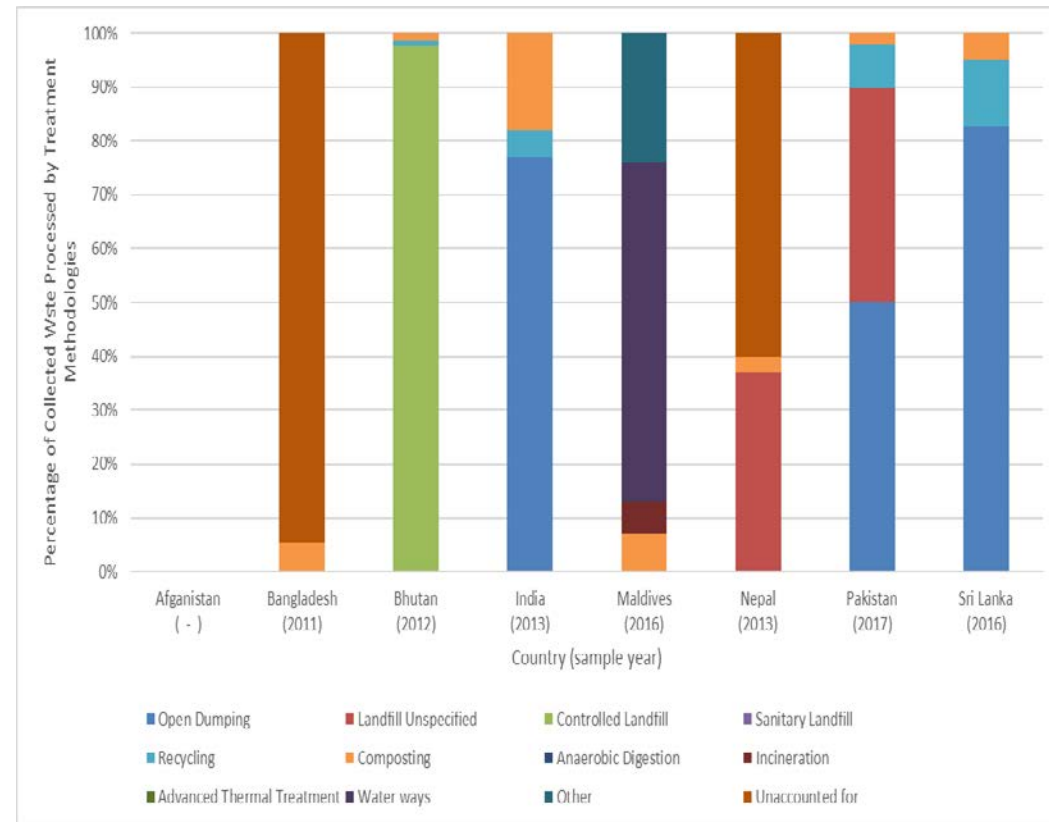
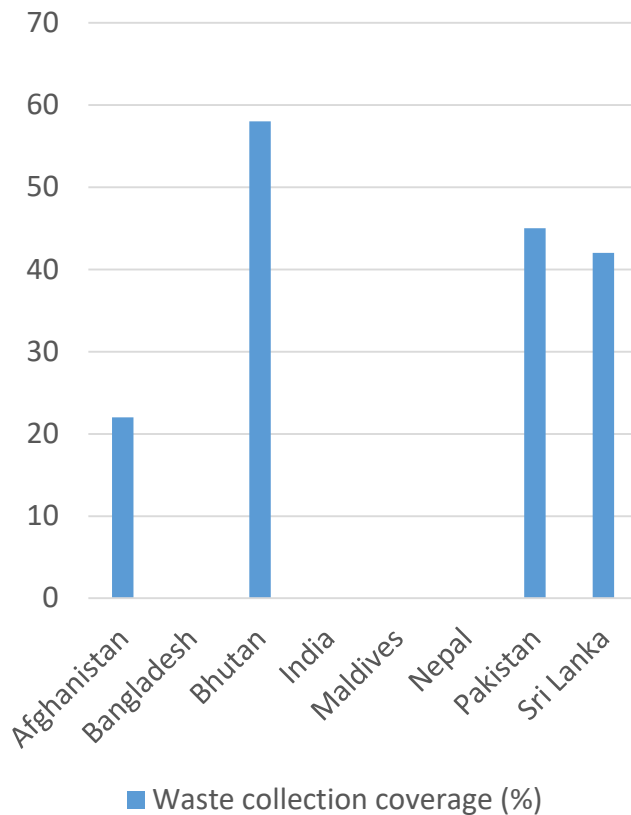
(3) Organic waste represents highest category of MSW (An average 56% with 187 million tonnes/day making it challenge in finding treatment options)

(4) Other emerging waste (plastic, e-waste, medical, C&D) are increasing and causing to environment and public health



Results of quick study of CCET/SACEP with member countries

- (5) There is no proper data on waste collection and treatment methods
- (6) An average waste collection rate is about 44% and lowest sub-region (44% in Sub-sharan Africa, WB, 2018)
- (7) Open dumping is the mostly adopted waste disposal method in all countries
- (8) Incinerator is experimenting in India and Maldives, however need more evaluation on its applicability in the sub-region due to challenges
- (9) Open burning is widely noticed in most of the countries, particularly small cities/ rural area or island communities (Maldives)



Results of quick study of CCET/SACEP with member countries

(10) Promotion of waste separation and material recovery/ recycling is regulated by many countries though enforcement is weak

(11) Organic waste composting and biogas are practiced by all countries with limited success

(12) Recycling activities are largely operated by informal/ community-based and SMEs

(13) Low citizen participation makes difficult to implement waste separation at source

	Mandatory Separation	Recyclable Materials (plastic, paper, metal etc.)	Organic Waste	Household Hazardous Waste	Others	Household Participation to Source Segregation
AFG	-	-	-	-	-	Low
BGD						Low
BTN	✓	✓	✓	✓	✓	Low
IND						High
MDV	✓	✓	✓	✓		Low
NPL	✓	✓	✓			Low
PAK	-	✓	-	-	-	-
LKA	✓	✓	✓	✓		Average

Results of quick study of CCET/SACEP with member countries

(14) Each country has established national policies/ regulations and plans for MSWM and other specific wastes, though enforcement is weak

	Relevant national legal/policy framework	MSW				Special Waste
		National laws/policies for MSW	National strategies/plans for MSW	Sub-national (regional/local) policy for MSW	Sub-national (regional/local) strategy/plan for MSW	National laws/policies for special waste (non-MSW)
Afghanistan	Environmental Law (2007) Environmental Protection Act (2007) Infection Prevention and Control Policy (2005)	National Waste Management Policy Urban Solid waste Regulation (Draft) Waste Standards	n.a.	There is only one mentioned policy (solid waste management national policy) which is applied locally and nationally.	n.a.	Medical waste management policy Medical Waste Regulation
Bangladesh	(1) National Environment Policy (1992) (2) Seventh National Five Year Plan (FY 2015-FY2020) (3) Bangladesh Country Investment Plan (CIP) (4) Sustainable Development Goal (SDG) (5) (Third National Communication of Bangladesh, (TNC) (6) National Environmental Action Plan (NEMAP) (1995)	National Policy for Water Supply and Sanitation, 1998 A National Strategy on Reduce, Reuse and Recycle (3R) for Bangladesh	Sludge Management Guideline	(1) National Environmental Policy & Programmatic CDM using Waste of Urban Centers (Phourshava/Municipality) through Bangladesh (2) Dhaka Environment Plan (2005) (3) Solid Waste Management Action Plan for Eight Secondary Towns in Bangladesh (2005)	n.a.	(1). medical waste management Rules 2008 (2.) Guidelines for Medical Waste Management (3) Hazardous Waste and Ship breaking waste management rules 2011 (4) Guidelines and Rules on Hazardous Waste Management (5) Draft E-waste and Solid Waste management Rules (2019)
Bhutan	<u>Environmental Legislations</u> Environmental Assessment Act (2000) Regulation for the Environmental Clearance of Projects (2001) Regulation on Strategic Environmental Assessment (2001) National Environmental Protection Act (2007) Relevant Legislations • Local Government Act of Bhutan, 2009.	1. Waste Prevention and Management Act of Bhutan (2009) 2. Waste Prevention and Management Regulation (2012) 3. National Integrated Solid Waste Management Strategy (2014) 4. Waste Prevention and Management (Amendment) Regulation (2016) 5. Draft National Waste Management Strategy (2019)	1. National Integrated Solid Waste Management Strategy 2014	1. Waste Prevention and Management Act of Bhutan 2009 2. Waste Prevention and Management Regulation 2012 3. National Integrated Solid Waste Management Strategy 2014 4. Waste Prevention and Management (Amendment) Regulation 2016	n.a.	<u>Waste-specific Legislations</u> • Medicines Act of the Kingdom of Bhutan, 2003. • Pesticide Act of Bhutan, 2000. • Environmental codes of practices for hazardous waste management, 2002. <u>Relevant Legislations</u> 1. Waste Prevention and Management Act of Bhutan (2009) 2. Waste Prevention and Management Regulation (2012) 3. National Integrated Solid Waste Management Strategy (2014) 4. Waste Prevention and Management (Amendment) Regulation (2016) • Environment Assessment Act, 2002.
India	The Environment (Protection) Act (1986) The Public Liability Insurance Act (1991) The National Environmental Tribunal Act (1995) The National Environment Appellate Authority Act (1997) National Environmental Policy (2006)	Municipal Solid Wastes (Management & Handling) Rules (2000) Plastic Manufacturer & Use Rules (2003) The Plastic Waste (Management & Handling) Rules (2011)	n.a.	n.a.	n.a.	Batteries (Management and Handling) Rules (2001) Biomedical Wastes Management & Handling Rules (1998) E-waste Rule (2011)

Results of quick study of CCET/SACEP with member countries

(14) Each country has established national policies/ regulations and plans for MSWM and other specific wastes, though enforcement is weak

	Relevant national legal/policy framework	MSW				Special Waste	Source
		National laws/policies for MSW	National strategies/plans for MSW	Sub-national (regional/local) policy for MSW	Sub-national (regional/local) strategy/plan for MSW	National laws/policies for special waste (non-MSW)	
Maldives	Environmental Protection and Preservation Act of Maldives Law No: 4/93 (1993) Maldives Tourism Act Law No. 2/99 (1999) Regulation on the Protection and Conservation of Environment in the Tourism Industry (2006) National Health Care Waste Management Policy	The National Solid Waste Management Policy for the Republic of the Maldives (2007) Environment Protection & Preservation Act, Waste Management Regulation (2013/R-58)	Waste Management Policy 2015	The National Solid Waste Management Policy for the Republic of the Maldives (2007) Environment Protection & Preservation Act, Waste Management Regulation (2013/R-58)	Waste Management Policy (2016)	Waste Management Regulation (2013/R-58)	
Nepal	Environmental Protection Act (1996)	Draft National SWM Policy (1996) Solid Waste Management Act (2011) Solid Waste Management Regulation (2013)	Draft National Strategy and Action on Municipal Solid Waste Management in Nepal (2018)	Not available. However individual municipality can prepare their own local policy, regulation, by-laws as necessary	n.a.	National Health Care Waste Management Guidelines (2002) Health Care Waste Management (2002) Draft Hazardous Waste Management Regulation (2018) Draft Pesticides Act (2018)	1. SWMTSC (Solid Waste Management Technical Service Centre)/MoFAGA (Ministry of Federal Affairs and General Administration) 3. MoFE 4. SWMTSC/MoFAGA 6. MoFAGA ; SWM Act 2011; Local Government Operation Act 2017
Pakistan	Cantonment Act 1924 (Section 132) (1924) Islamabad Capital Territory Bye Laws (1968) Lahore Development Authority Act (1975) Sind Fisheries Ordinance Act (1980) Pakistan Environmental Protection Act (section 11) (1997) Panjab Environmental Protection Act 1997 (2004) New Murree Development Authority Act (2004) NIL	n.a.	n.a.	Local Government Act	n.a.	Hazardous Substances Rules (2003) Hospital Waste Management Rules (2005) Hazardous Waste Management Rules	
Sri Lanka	National Policy on Solid Waste Management is being updated to National Waste Management Policy to include liquid, gaseous waste and all forms of emerging waste streams.	National Solid Waste Management Policy & Environment Regulations, Police Ordinance	Ministry of Provincial & Local Government has a National Plan	n.a.	All Regional Institutions have Action Plans	Hazardous Waste Regulations	1. MMD&E

Key points from the 1st workshop in Nepal

Overall Policy Directions

- Introduce the **principles of circular economy, sound material-cycle society and sufficiency economy into waste management policies**
- Strengthen policies to **integrate 3R concept**
- Strengthen **sustainable partnerships to establish economically sound waste management** (EPR, Polluters-Pay Principle, Minimum Subsidies & Maximum business opportunities through public/private and community partnership)
- **Integration of informal sector and community-based practices**

Domestic or Municipal Solid Wastes

- Achieve **waste reduction targets by 10%** (by 2030 based on 2019 per capita waste generation at national level)
- Introduce **100% source separation at source**
- Increase **waste collection coverage by 100%** (access for all to adequate, safe and affordable waste collection service)
- Increase resource recovery including both organic and non-organic by 60%–90% (**targeting zero waste**)
- Achieve **zero open dumping and open burning**

Industrial Wastes

- Significance of **source separation and increasing resource productivity**
- Apply **cleaner technologies and clean production methods** for environmentally-sound operation, treatment and final disposal
- Developed **proper classifications, inventory and polies** as prerequisite towards application of transboundary recycling.

Other Emerging Wastes (Plastic, Medical and E-waste)

- Development **of specific policies and regulations** for environmentally-sound management of emerging waste at all stages of operation
- **No marine litter**
- **Phasing out single use plastics** and promote R&D for alternative materials
- Effective **enforcement to prevent illegal and inappropriate export and import of (trans-boundary)**, particularly plastic and e-waste
- Ensure **health and safety aspects of those who involved** in operation

Key points from the 1st workshop in Nepal

Sub regional Levels

- Raise the priority of 3Rs, circular economy/ sustainable production & consumption/ cleaner production/ pollution prevention into waste management strategy and programs.
- Include emerging waste (plastic waste, e-waste and medical waste etc) into the waste management strategy and programs
- Establish a new coordination mechanism/ knowledge hub/ knowledge center for information, best practice and knowledge exchange, training/ capacity building and technical support
- Build and strengthen networks among national governments, municipalities, industry, and NGOs for the exchange of relevant experiences with technology and institutional development within the region as well as voluntary evaluation, monitoring and reporting
- Link with existing regional networks and programs that are already working at some level of 3R—e.g., cleaner production, green productivity, eco-efficiency, etc.
- Ask international aid agencies to raise their priority for funding 3R programs and projects, including pilot and demonstration projects of proven technology, and not to sponsor polluting technologies.

National Level

- Raise the priority of sustainable waste management and 3R-related policy within national policy.
- Establish stable and effective national enabling policy with fiscal enabling support.
- Establish a national strategy in each country with a holistic approach covering upstream and downstream issues.
- Implement new or improved legislation on the 3Rs that complements pollution control regulations.
- Develop national action plans for specific waste sectors jointly among key stakeholders.
- Establish clear targets for waste reduction and recycling for key waste areas.
- Establish clear guidelines for implementing 3R programs.
- Development capacity of national and local governments to implement 3R.
- Promote collaboration among municipalities, the business sector, and NGOs/CSOs.
- Promote the exchange of industrial waste and by-products from one industry as inputs for other industries through information sharing as a starting point for a more comprehensive program on industrial 3Rs.
- Establish environmental education and information services.

Local Level

- Raise the priority of sustainable waste management and 3R-related policy within local policy.
- Establish a local strategy for each city with a holistic approach covering upstream and downstream issues.
- Implement new or improved local legislation on the 3Rs that complements pollution control regulations.
- Develop local action plans for specific waste sectors jointly among key stakeholders.
- Establish clear targets for waste reduction and recycling for key waste areas.
- Promote collaboration among all local stakeholders including business sector, academic, and NGOs/CSOs.
- Involve the informal sector as a stakeholder.
- Disseminate existing success stories on the 3Rs to local agencies.
- Build public awareness of the environmental and health risks from wastes and the options for mitigation of risks through the 3Rs.

During the 2nd workshop in Bangladesh, address the thematic issues in more detail

Day 1:

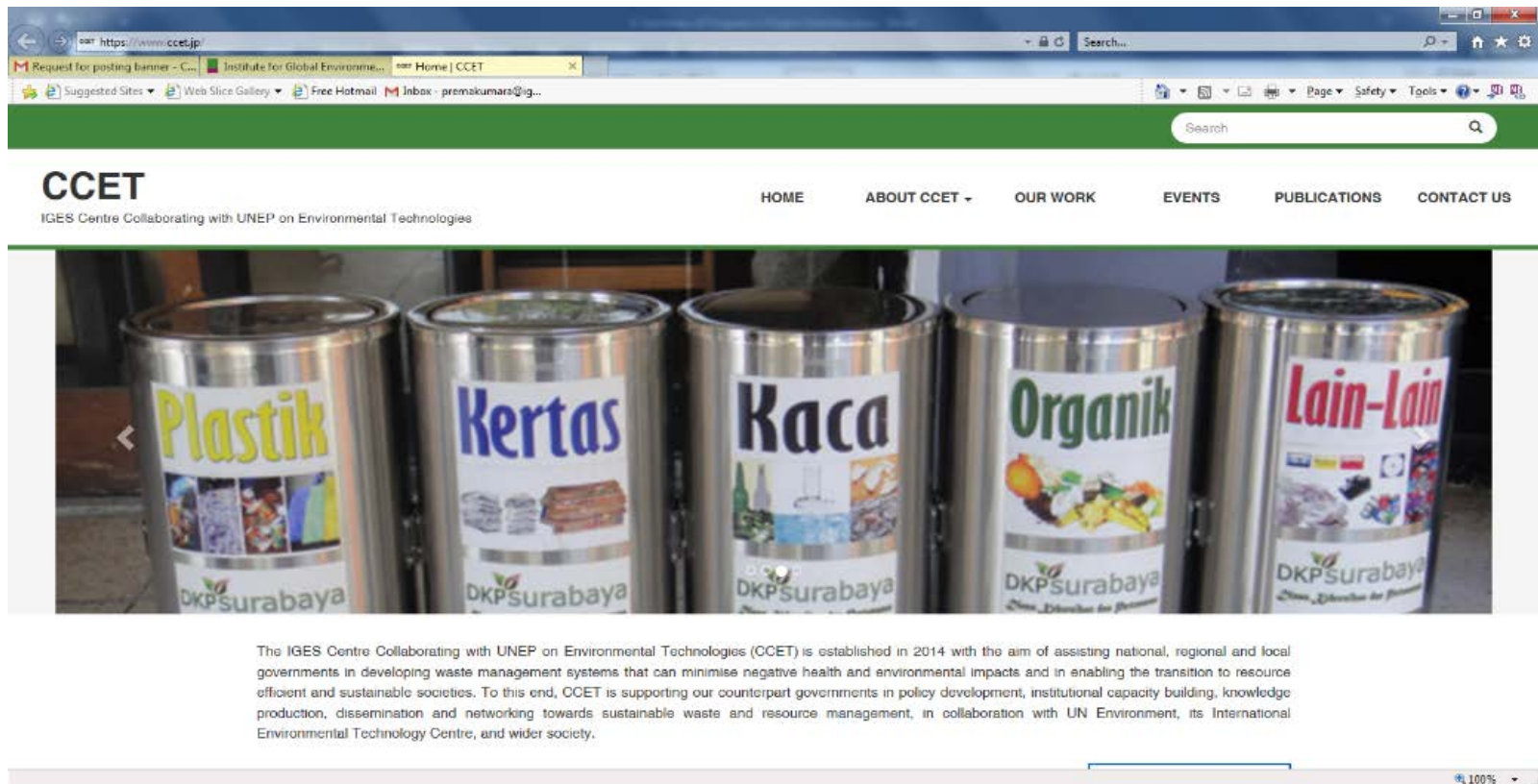
- Thematic session 1 – Organic waste management (including food waste)
- Thematic session 2: Plastic waste management and marine plastic pollution in South Asia
- Thematic session 3 – Financing and institutional building for waste management

Day 2:

- Thematic session 4 – Waste separation at source
- Thematic session 5 - Stop open burning and open disposal
- Thematic session 6 – Holistic waste management/ integration of 3Rs
- Thematic session 7 – a sub-regional cooperation/ monitoring and voluntary reporting mechanism

Structure of the thematic sessions:

- Each session have 90 minutes (maximum)
- Have a key note speech and 2 country presentations (5-10 minutes per each)
- A facilitator will moderate the free discussions and summarise by identify 3-5 (minimum) key points to be considered in the final report
- All participants are kindly request to involve active discussions



Thank you

For further information: IGES Centre Collaborating with UNEP on Environmental Technologies (CCET), <<https://www.ccet.jp/>>