

Moving from waste management to resource management

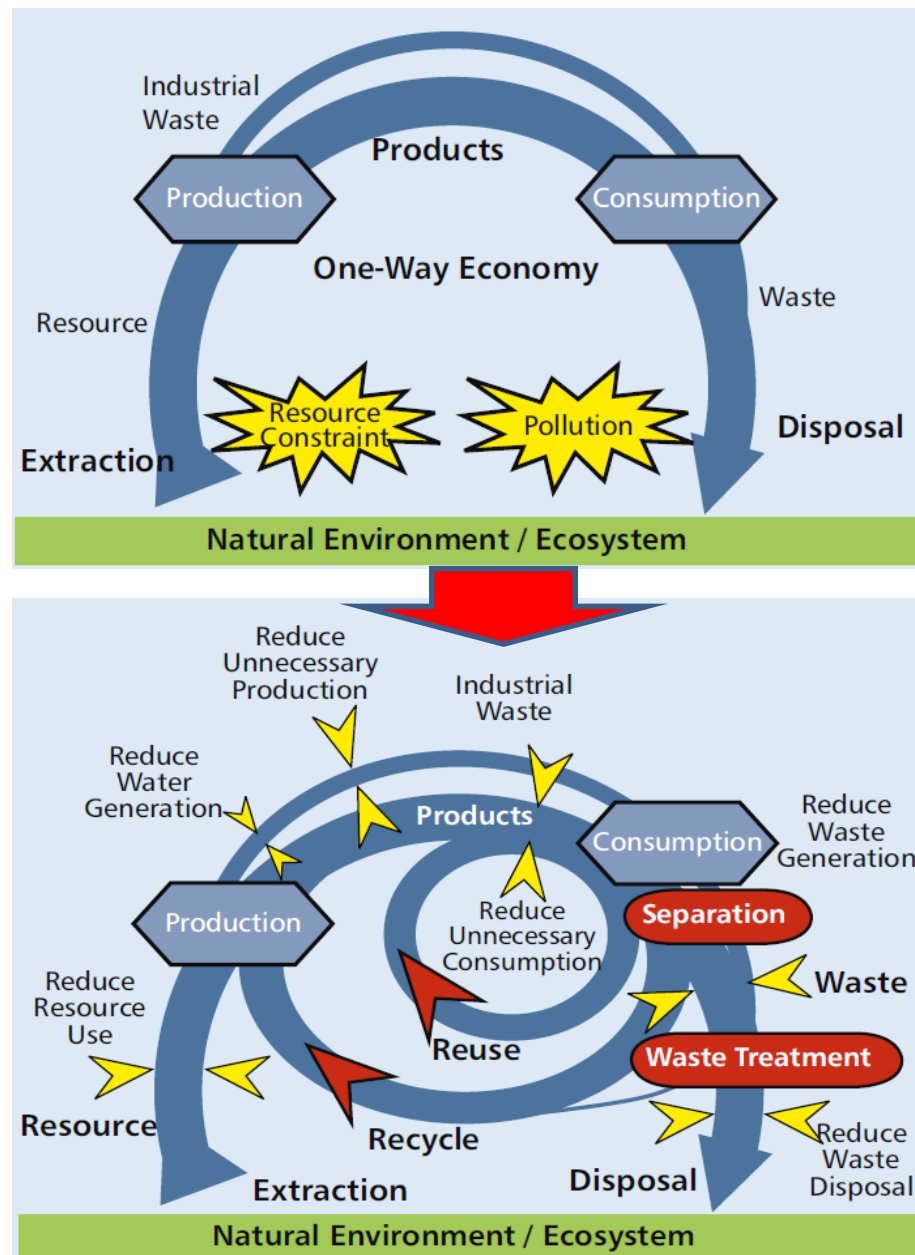
National and local waste management strategies in developing countries

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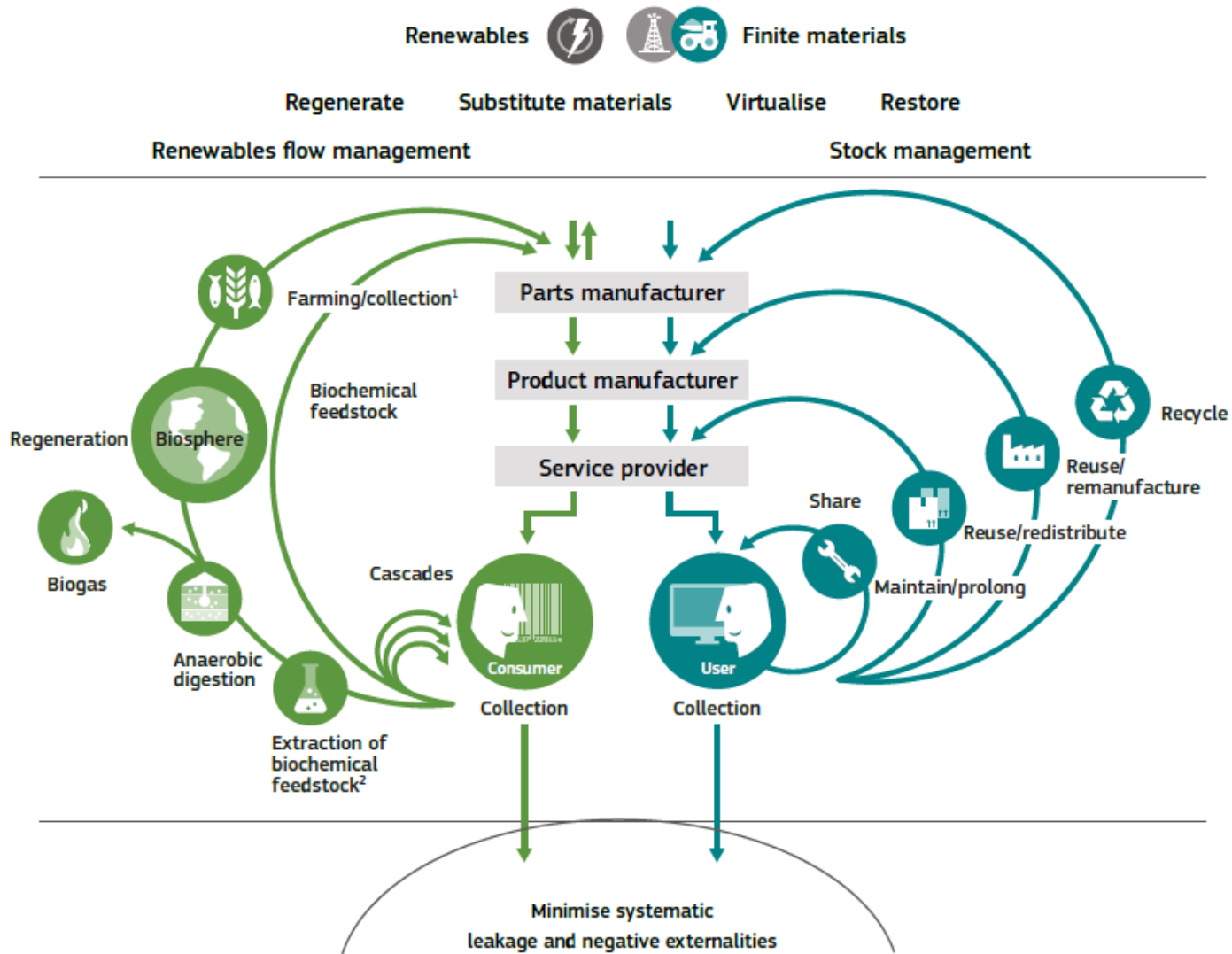
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Transforming from waste management to resource management

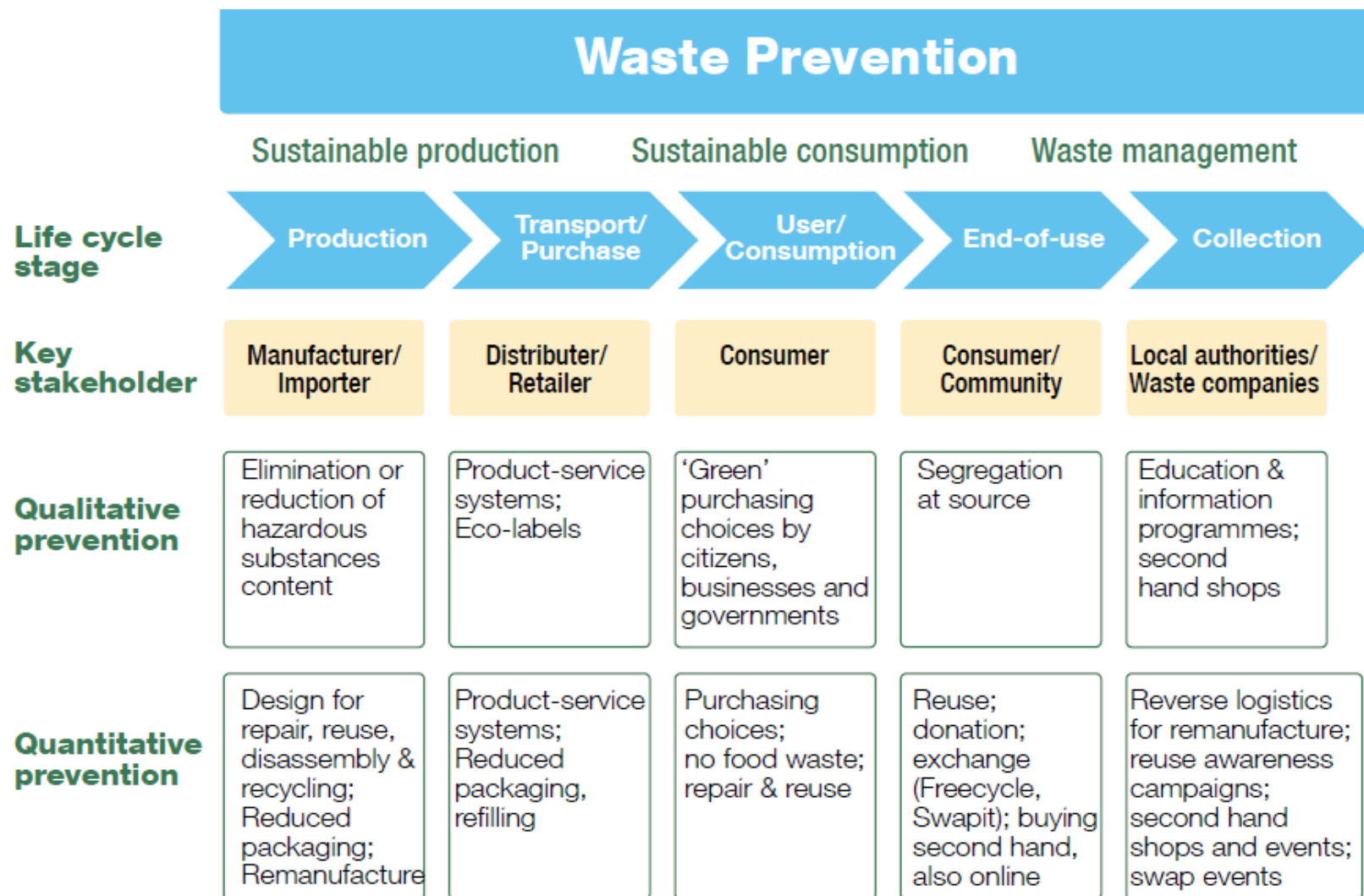
- Sustainable development could only be achieved if society learned to produce *More with Less* - more goods and services from less resources (including energy) while generating less waste and pollution (the Brundtland Report of the United Nations, *Our Common Future* (WCED, 1987).
- Needs fundamental changes to move from a *linear (one - way)* economy and waste management (end-of-pipe) to *circular-economy* and resource management based on waste hierarchy/3Rs (reduce, reuse and recycling (ADB and IGES, 2007)



Circular economy

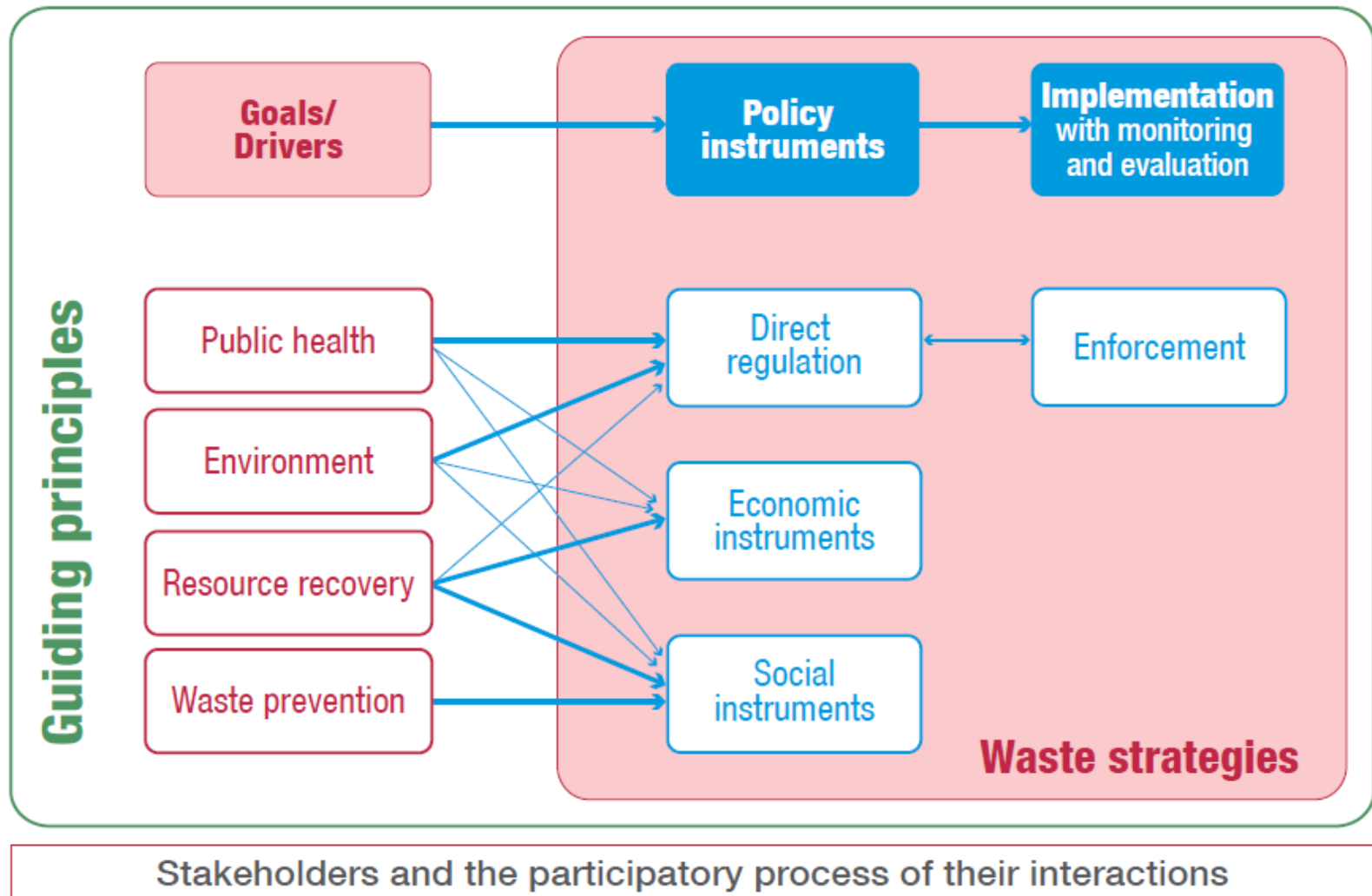


Requires an Integrated (ISWM) Approach

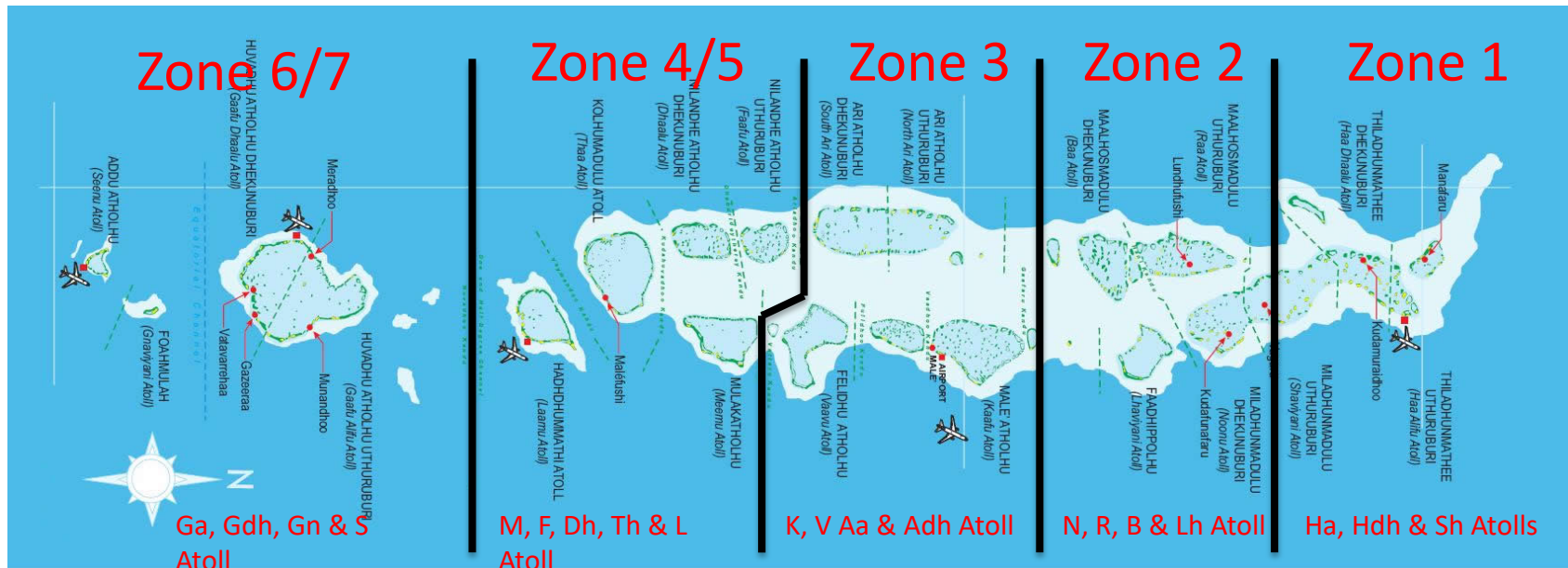


Inspired by Cox et al (2010); ISWA and UNEP (2015)

Strategic planning – a complex interplay of goals, policy instruments and their implementation



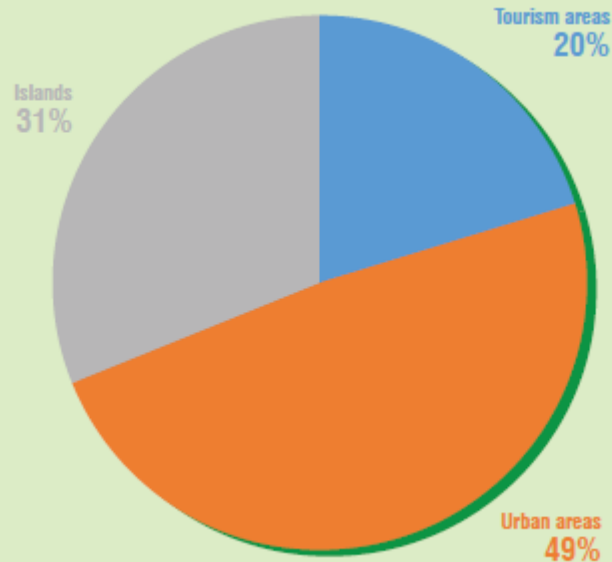
Waste Management in Maldives – The Regional Waste Management Strategy for Zone 6 & 7



An inclusive and consultative process with island councils and key stakeholders in developing a regional waste management strategy for zone 6 & 7



Waste Management in Islands

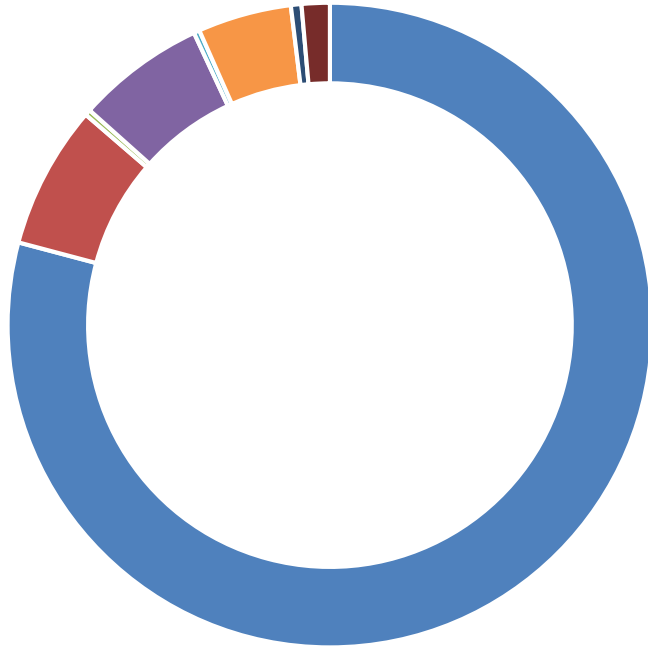


Distribution of waste generation among key sectors, 2017



Waste composition based on island communities, resorts and safari/vessels, 2015

Waste Management in Islands

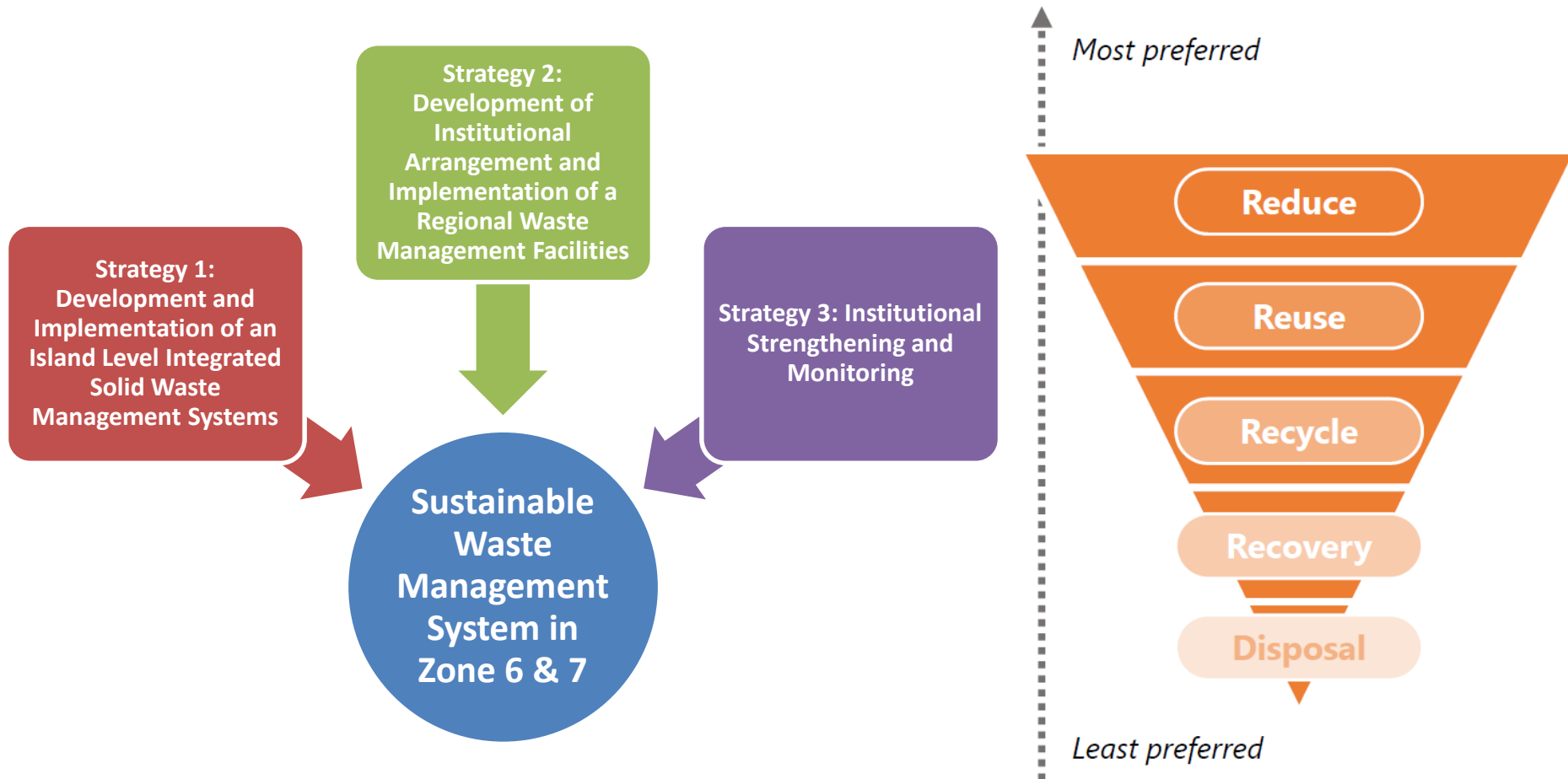


- Dump at the designated site
- Dump into the beach/seaside
- Taken to the land reclamation site
- Throw away to the bushes
- Bury in the house compound
- Burn in the house compound
- Burn using incineration
- Not stated

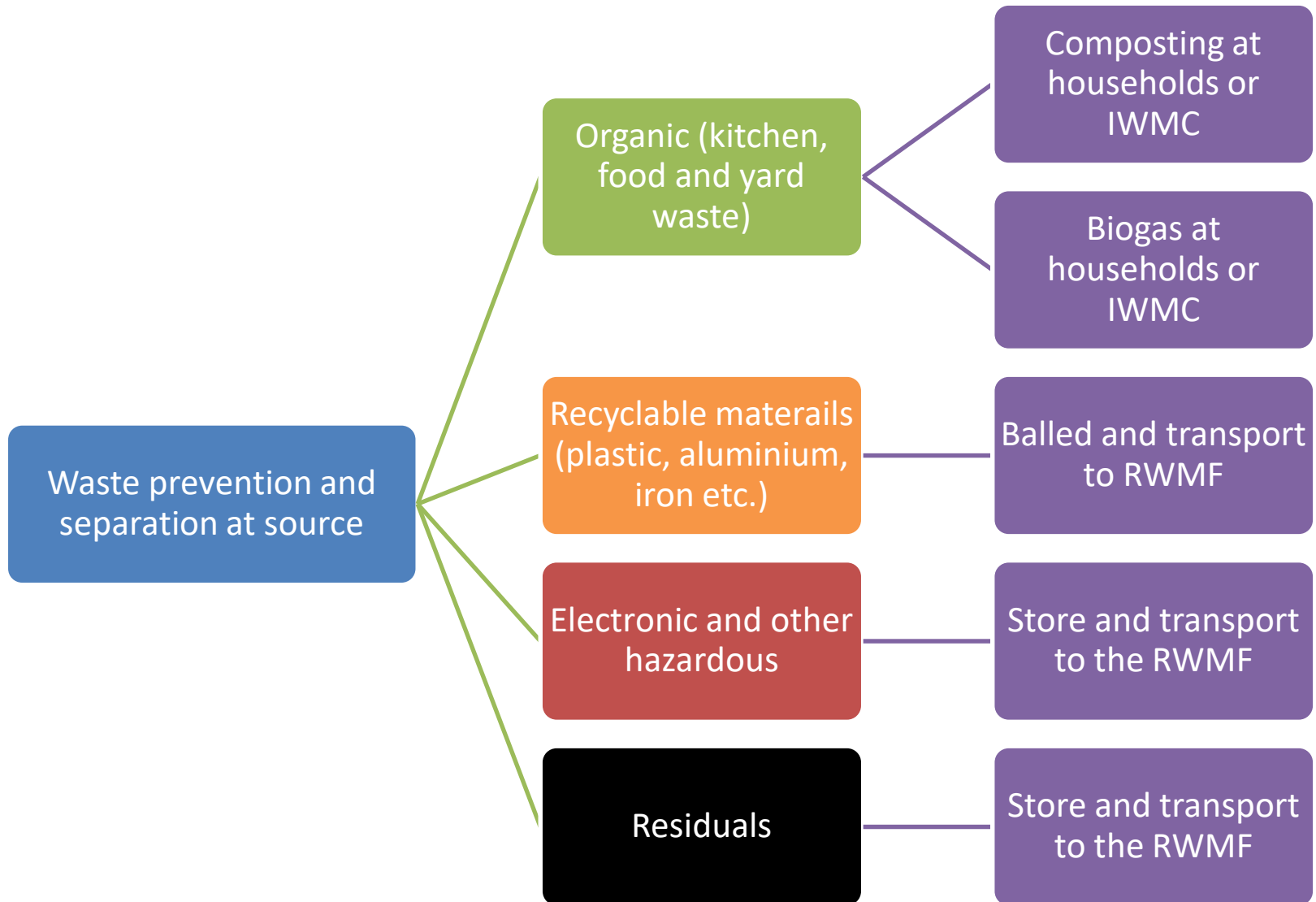
*Common method of solid waste disposal
at household level, 2018*



Proposed strategic actions based on waste hierarchy



Implementation actions and technical guidelines



Interconnection and cooperation between island, regional and central governments

The Central waste administration

- The Central Waste Administration will plan, regulate, co-ordinate and monitor the national waste management system, administer nationally based waste management programs (such as for hazardous wastes, product stewardship etc.), administer complex private sector participation, provide advice, guidance and capacity development assistance to the other levels of Government to enable them to perform their functions, and create an inspectorate to advise on and enforce the law

Regional/Atoll Waste Administration

- The Regional/Atoll Waste Administration will be responsible for developing regional waste management plans, implementing operational policies and guidelines and complying with legislation of the Central Waste Administration. The regional Atoll Waste Administration will coordinate with the Island Waste Administrations and the atoll authorities within its catchment and administer arrangements for the operation of the Regional Waste Management Facility

Island Waste Administration

- Each Island Waste Administration will be responsible for developing island based waste management plans, implementing operational policies and guidelines and complying with regulations. They will administer local arrangements for waste collection, Island Waste Management Centre operations, fee collection, simple private sector participation and co-ordinating waste transfer activities with the Atoll Administration, Regional Waste Administration and/or private sector contractor

Islands are taking steps to make the transformation from waste to resource management

Island Council	Island Waste Management Plan	Island Waste Management Centre	Current waste collection system
GA Kodey	Drafting	Not yet	Not available
GD Nadella	Drafting	Construction is complete	Planning stage
GA Nilandhoo	Drafting	Construction is on-going	Planning stage
GD Thinadhoo	Waiting for approval	Construction is on-going	Operational
GA Viligilli	Drafting	Construction is on-going	Operational
GD Vaadhoo	Waiting for approval	Construction is complete	Planning stage
GA Dheevadhoo	Drafting	Construction is complete	Not available
GD Faresmaathodaa	Plan is being amended	Construction is complete	Operational
GA Dhaandhoo	Drafting	Construction is on-going	Planning stage
GD Hoadedhoo	Approved	Not yet	Planning stage
GA Gemanafushi	Waiting for approval	Construction is complete	Planning stage
GD Fiyori	Drafting	Construction is complete	Planning stage
GA Kolamaafushi	Approved	Construction is on-going	Operational
GD Rathafandhoo	Not yet	Construction is on-going	Not available
GA Kanduhulhudhoo	Approved	Construction is on-going	Not available
GD Gadhdhoo	Drafting	Construction is complete	Planning stage
GA Maamendhoo	Drafting	Construction is complete	Not available
GD Madaveli	Drafting	Construction is complete	Planning stage

Key lessons learned

1. Provides a comprehensive understanding of the challenges and opportunities
2. Process and action oriented
3. Enhances leadership and provides for pro-active decision-making
4. Promotes consensus and shared commitment with regard to purpose and actions
5. Provides for stakeholder involvement, synergy and education
6. Promotes sound investment and develops a competitive advantages
7. Involves capacity building for strategic thinking and organisational learning



Thank you

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