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**Household Waste Partnership working group****First meeting**

Port Louis, Mauritius, 14-17 May 2018

**Report of the Household Waste Partnership working group on the work of its first meeting****I. Opening of the meeting**

1. The first meeting of the Household Waste Partnership working group was opened at 9.00 a.m. on Monday, 14 May 2018, by Mr. Prakash Kowlessar (Mauritius), Co-Chair of the Household Waste Partnership working group. Together with his Co-Chair, Ms. Gabriela Medina (Uruguay), he welcomed participants to the meeting. Recalling how the Partnership originated from the concept for creating innovative solutions through the Basel Convention for the environmentally sound management of household waste, he emphasized the objectives of the current meeting which were to discuss its workplan and to agree on the approach to developing modules for the overall guidance document.

2. Mr. Alexander Mangwiro of the Secretariat of the Basel Convention, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants, then welcomed the meeting participants to Mauritius. He thanked the Governments of Norway and Switzerland for their generous financial assistance for the face-to-face meeting and in supporting the participation of developing countries and countries with economies in transition. He also thanked the Government of Mauritius for hosting the meeting, and the Basel and Stockholm Conventions Regional Centre in South Africa for arranging all the logistics.

3. Mr. Etienne Sinatambou, Minister of Social Security, National Solidarity and Environment and Sustainable Development then gave a keynote speech highlighting the importance of the work of the Partnership and the relevance to developing countries and countries with economies in transition, in particular small island developing states like Mauritius.

**II. Organizational matters****I. Adoption of the agenda**

4. The working group adopted the following agenda on the basis of the provisional agenda (UNEP/CHW/HWPWG.1/1):

1. Opening of the meeting.
2. Organizational matters:
  - (a) Adoption of the agenda;
  - (b) Organization of work.
3. Working modalities of the Household Waste Partnership working group:
  - (a) Membership of the Household Waste Partnership working group;

- (b) Overview of the concept note and terms of reference for the Household Waste Partnership.
  - 4. Matters related to the activities of the Household Waste Partnership.
    - (a) Household Waste Partnership workplan for the biennium 2018–2019;
    - (b) Establishment of project groups;
    - (c) Resource mobilization opportunities.
  - 5. Preparations for the eleventh meeting of the Open-ended Working Group.
  - 6. Venue and date of the second meeting of the Household Waste Partnership working group.
  - 7. Other matters.
  - 8. Closure of the meeting.
5. Under item 7 of the agenda, "Other matters", the working group would be informed of the arrangements related to the field trip on 17 May 2018.

### B. Organization of work

6. The Secretariat drew attention to the concept note and terms of reference for the household waste partnership (UNEP/CHW.13/INF/33/Rev.1) and the objectives and possible outcomes of the meeting described in the information note for participants.<sup>1</sup> The working group agreed to conduct the meeting in accordance with the latter.

### C. Attendance

7. The meeting was attended by representatives of the following members of the working group: Ms. Magalid Luján Cutina (Argentina), Mr. Artak Khachatryan (Armenia), Ms. Jaime Short (Cook Islands), Mr. Harald Junker (Germany), Mr. Prakash Kowlessar (Mauritius), Mr. Marco Buletti (Switzerland), Mr. Godfrey Oluka (Uganda), Ms. Pauline Dhlakama (Zimbabwe), Mr. Iyngararasan Mylvakanam (United Nations Environment Programme), Mr. Martin Jakuš (Basel Convention Regional Centre for Training and Technology Transfer for Central Europe (BCRC-Slovakia)), Mr. James Mulolo (Basel Convention Regional Centre for Training and Technology Transfer for the English-Speaking African countries (BCRC-South Africa)/Stockholm Convention Regional Centre for Capacity-building and the Transfer of Technology (SCRC-South Africa), Ms. Jewel Joy Batchasingh (Basel Convention Regional Centre for Training and Technology Transfer for the Caribbean Region (BCRC-Caribbean)), Ms. Gabriela Nair Medina Amarante (Basel Convention Coordinating Centre for Training and Technology Transfer for Latin America and the Caribbean Region (BCCC-Uruguay)/Stockholm Convention Regional Centre for Capacity-Building and the Transfer of Technology (SCRC Uruguay), Mr. Ross Bartley (Bureau of International Recycling (BIR), Ms. Talat Afzal (Bury Council), Ms. Ieva Rucevska and Ms. Elaine Baker (GRID-Arendal) and Mr. Dharmesh Shah (International POPs Elimination Network (IPEN)).

8. A number of representatives of the Government of Mauritius also attended the meeting. The list of participants is set out in document UNEP/CHW/HWPWG.1/INF/1.

## III. Working modalities of the Household Waste Partnership working group

### A. Membership of the Household Waste Partnership working group

9. The Secretariat introduced the sub-item, outlining the information in document CHW.13/INF/33/Rev.1, highlighting the information on membership. The Secretariat reported that as of 30 April 2018, there were following members: 50 Parties; 1 signatory; 4 intergovernmental organisations; 14 regional centres; 2 industry associations; 1 municipality and 12 non-governmental organisations. Providing information on how the Secretariat had issued a communication to potential members from various stakeholder groups and invited their participation in the Partnership, the Secretariat explained that the members had to represent either Parties or observers to the Basel Convention in accordance with paragraph 6 of Article 15 of the Convention and the rules of procedure

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<sup>1</sup> <http://www.basel.int/tabid/6298/Default.aspx>.

for the Conference of the Parties to the Convention and that some applicants were in the process of applying for admission as observers.

10. In the ensuing discussion, several members expressed appreciation for the efforts made by the Secretariat to increase membership, reiterated the importance of participation of regional and local authorities, private sector and academia. They also shared their experiences in reaching out to potential partners such as by advertising the Partnership on the website of their organizations, directly contacting representatives of municipalities, communicating through competent authorities and focal points of the Basel Convention.

11. One member, supported by others, pointed out that the Partnership needed to be attractive to various stakeholders, in particular municipalities, informal sector and industry. Political awareness was also vital and this could be achieved, he said, once it had defined its goals, undertaken concrete activities and produced some products such as guidance or roadmaps for the environmentally sound management of household waste. These could then be presented at a larger forum such as the meeting of the Conference of the Parties. Other members also suggested that, though it might take some time, a small-scale pilot project in one country, for example on strengthening legislations or institutional mechanisms, might lead to drawing political attention of other countries.

12. Another member noted that there were other partnerships and initiatives related to the sound management of wastes and that the present Partnership should focus on developing high quality tools that could be used by other partnerships.

13. One member raised a question on the annual contributions to the Partnership, noting the sliding scale provided in the terms of reference requiring individual companies, producer responsibility organizations, business associations and environmental non-governmental organizations to contribute in order to maintain their membership. He also expressed concerns on overlaps with other partnerships and initiatives, such as those addressing issues related to marine plastic litter.

14. Other members emphasized a potential leadership role of the Partnership towards sustainable development and opportunities in promoting sustainable consumption and the circular economy. One member shared experiences in her country where the municipalities cooperated with informal groups, private sector, community groups and the public to provide services that municipalities would normally provide in order to address their financial constraints and highlighted the interest of the private sector in ensuring cooperate social responsibility. Raising awareness, educating the public, including the younger generation, they said, plays a key role in changing behaviours and creating sustainable societies.

15. One member, supported by another, indicated that household waste management had been considered a sanitary issue and that the involvement of the health sector was crucial. The member also pointed out that the work of the Partnership could pay attention to different social status groups, regional aspects, climate and geographic diversity, and gender.

16. In concluding the discussions, the Co-Chairs highlighted that engaging various stakeholders, in particular the informal sector, municipalities, industry, including the packaging industry, was very important, and that how to attract those stakeholders was the major challenge of the working group.

17. The working group supported the leaflet developed by the Secretariat and requested the Secretariat to make use of it. The leaflet is set out in annex V to the present report and is available on the website of the Convention.<sup>2</sup>

## **B. Overview of the concept note and terms of reference for the Household Waste Partnership**

18. The Secretariat introduced the sub-item, outlining the concept note and terms of reference for the Household Waste Partnership set out in document CHW.13/INF/33/Rev.1. The working group discussed this sub-item in conjunction with item 3 (a) on membership of the Household Waste Partnership working group.

<sup>2</sup> <http://www.basel.int/Implementation/HouseholdWastePartnerships/Overview/tabid/5082/Default.aspx>.

## **IV. Matters related to the activities of the Household Waste Partnership**

### **A. Household Waste Partnership workplan for the biennium 2018–2019**

19. Introducing the item, the representative of the Secretariat drew attention to the workplan of the Partnership for the biennium 2018–2019 set out in the annex to decision BC-13/14 as well as the draft proposal for the development of the guidance document on the environmentally sound management of household waste and establishment of working groups and the draft outline of the overall guidance document on the environmentally sound management of household waste prepared by the consultants and made available on the Convention website<sup>3</sup> in advance of the meeting. Invited by the Co-Chair, the consultants gave a presentation on the draft proposal and the draft outline and the working group considered them in detail.

20. There was a general agreement among the members that the draft proposal and the draft outline were prepared in line with the mandate and the workplan of the Partnership. The working group agreed that the main target audience of the first set of modules to be developed would be governments and municipalities at the policy level, and practitioners at the operational level, e.g. collectors, transporters and disposal operators, while other targets such as households, consumers and producers would be addressed at the next stage. There was a general agreement that the final guidance therefore should propose an appropriate style including visual communication and easily accessible language to reach out to these target groups in a meaningful way.

21. Many members expressed the need for an interface between the readers and the different modules, which could also serve as a tool for conducting a situational analysis. The working group discussed extensively about such an interface and prepared a draft matrix table as set out in annex III to the present report, which could be taken into account in developing module 1 on assessment and decision making.

22. The working group agreed on the approach for the development of the guidance document on the environmentally sound management of household waste and the draft outline of the overall guidance document on the environmentally sound management of household waste as set out in annexes I and II to the present report, respectively.

### **B. Establishment of project groups**

23. The working group identified the priority modules to be developed and agreed that by July 2018, these modules would be drafted.

24. The working group also identified the lead drafter and drafting group members for each of the modules. A table listing the prioritisation of the modules and the composition of the drafting groups is set out in annex IV to the present report.

### **C. Resource mobilization opportunities**

25. Introducing the sub-item, the Secretariat reported key activities undertaken so far by the Secretariat on resource mobilization for the Partnership and expressed appreciation to the Governments of Norway and Switzerland whose generous financial support had enabled the engagement of the consultants in preparing the draft approaches to developing guidance documents and the draft outline, and the organization of the first face-to-face meeting of the working group in Port Louis, Mauritius. The Secretariat informed the working group of the generous financial support expected from the European Union in June 2018.

26. Recalling the successful example of the Partnership for Action on Computing Equipment under the Basel Convention, the working group agreed that the sliding scales of assessment for annual subscriptions to the Partnership contained in appendix II to the terms of reference of the Partnership in annex II to document UNEP/CHW.13/INF/33/Rev.1 should be actively implemented.

27. The working group took note of the information provided.

<sup>3</sup> <http://www.basel.int/tabid/6298/Default.aspx>.

## V. Preparations for the eleventh meeting of the Open-ended Working Group

28. Introducing the item, the representative of the Secretariat recalled that, in decision BC-13/14, the Conference of the Parties, among others, requested the Secretariat to report on progress in the implementation of that decision to the Open-ended Working Group at its eleventh meeting to be held from 3 to 6 September 2018 and the Conference of the Parties at its fourteenth meeting to be held from 29 April to 10 May 2019 in Geneva. She indicated that the Secretariat would prepare a working document to provide a progress report and an information document setting out the outline of the modules and contents of three specific modules to be drafted by July 2018.

29. In the ensuing discussion, many members suggested the organization of a side event at the eleventh meeting of the Open-ended Working Group, as well as at the fourth session of the United Nations Environment Assembly to be held from 11 to 15 March 2019 in Nairobi. If possible, the latter may be organized in cooperation with actors relevant to addressing issues on marine plastic litter and microplastics. Ideas such as developing more outreach and information materials and reaching out to celebrities, for example, Sir David Attenborough, were shared. Others suggested that for the fourteenth meeting of the Conference of the Parties, a signing ceremony could be organized inviting high-profile members, including those from the private sector.

30. The Co-Chair invited the Secretariat to give a presentation on the work under the Basel Convention on marine plastic litter and microplastics. The Secretariat drew attention to the work programme of the Open-ended Working Group for the biennium 2018-2019 which included the consideration of relevant options available under the Convention to further address marine plastic litter and micro-plastics, taking into account inter alia the assessment requested by UNEA resolution 2/11, any relevant decision by UNEA-3, and existing guidance documents and activities under the Basel Convention that address issues related to marine plastic litter and micro-plastics and the development of a proposal for possible further actions, within the scope of the Convention and avoiding duplication with activities relating to this matter in other forums, for consideration at the fourteenth meeting of the Conference of the Parties. Furthermore, the conferences of the Parties to the Basel and Stockholm conventions, in decisions BC-13/11 and SC-8/15, respectively, encouraged the regional and coordinating centres of the Basel and Stockholm conventions to work on the impact of plastic waste, marine plastic litter, microplastic, and measures for prevention and environmentally sound management.

31. Several members recognized the strong link between the issue of household waste management and marine plastic litter and supported the cooperation and coordination in any future work related to marine plastic litter under the Basel Convention. One member, supported by others, voiced that the Household Waste Partnership and all relevant work under this Partnership works towards proposing practical solutions to combat waste including plastic leakage into the oceans and fresh water ecosystems. Many members thus agreed that it was important to communicate the work under the Partnership with those working on marine plastic litter to work effectively and avoid duplication.

## VI. Venue and date of the second meeting of the Household Waste Partnership working group

32. The working group agreed that its second meeting would be held in June 2019 at a venue yet to be decided. The BCRC-Caribbean and BCRC-Slovakia expressed their interest in hosting the meeting. In addition, the working group agreed that it would meet via online meetings, as necessary.

## VII. Other matters

33. Mr. Kowlessar informed the working group of the arrangements for the field trip on 17 May 2018. The working group would visit the landfill in Mare Chicose and the e-waste recycling facility and interim hazardous waste storage facility in La Chaumière. The information on the field trip is set out in annex VI to the present report.

34. No other matters were discussed.

## VIII. Closure of the meeting

35. Following the customary exchange of courtesies, the meeting was declared closed at 4.00 p.m. on Wednesday, 16 May 2018.



## Annex I

### Approach for the development of the guidance document on the environmentally sound management of household waste

#### I. Introduction and mandate

1. One of the key challenges related to waste management faced by national governments and municipalities, and practitioners, particularly in developing countries, countries with economies in transition and small island developing states (SIDS), is to achieve the prevention and minimization of household wastes and the environmentally sound management (ESM) of these wastes. The ESM of household wastes includes, among other things, environmentally sound source separation, collection, transport, storage, recycling, other recovery including energy recovery and final disposal.
2. The volume of household waste in many countries is increasing while its composition is changing. Based on their origin and/or composition and their characteristics, household waste may contain hazardous materials co-mingled with non-hazardous materials. Because of the potential for contamination with hazardous substances, waste collected from households is classified under the Basel Convention as requiring special consideration (Basel Convention, Annex II, Y46).
3. By its decision BC-13/14 on creating innovative solutions through the Basel Convention for the environmentally sound management of household waste, the thirteenth meeting of the Conference of the Parties to the Basel Convention established the Household Waste Partnership with the objective of promoting the ESM of household waste including its prevention and minimization, and to enable the decoupling of economic growth and environmental impacts associated with the generation of household waste and its initial handling by the public in their households.
4. Also by decision BC-13/14, a partnership working group was established to oversee organizational matters pertaining to the implementation of the partnership's activities including, among other things, the establishment of project groups and reviews of their work products and reports, serving as a forum for information sharing and taking the lead in awareness raising, outreach and coordination in relation to activities undertaken by the partnership.
5. For the 2018/19 biennium, the working group has been requested to, among other things, develop an overall guidance document on the ESM of household waste, compiling the key outcomes and recommendations resulting from the work of any project groups on:
  - (a) Best practices related to the ESM of household waste;
  - (b) Mechanical biological treatment, energy recovery, management of sanitary landfills and compartmentalization to deal with various waste streams;
  - (c) Assessment of current waste management systems, decision-making and efforts to ensure the ESM of household waste.
6. Noting that it is important to have political support in addressing ESM of household waste, main target audience of the current modules is:
  - (a) Policy level: national governments, municipalities;
  - (b) Operational level: practitioners (collectors, transporters, disposal operators)
7. This guidance could also serve as an awareness-raising and educational material. It could also guide as to what information households could require.
8. Other audience could include:
  - (a) Possible funding source;
  - (b) Academia;
  - (c) Public.
9. Note that other targets such as householders, consumers and producers will be addressed at the next phase.

## **II. Requests for the guidance on the environmentally sound management of household waste**

10. The partnership will develop guidance, implementation tools and manuals for governments, regional and local authorities and other stakeholders on, among other things, case studies of best practices, business models, policies and innovative solutions for the ESM of household waste in various socio-economic contexts.

## **III. Purpose of the guidance**

11. The objective of the Guidance is to promote and share existing practical and concrete solutions in order to assist governments, regional and local authorities and other stakeholders in the ESM of household waste.

12. Concretely, the Guidance aims to:

- (a) Inform planning, investment and management decisions for ESM of household waste by setting priorities in ESM of household waste;
- (b) Improve knowledge of sustainable waste management approaches;
- (c) Encourage information sharing between waste authorities, governments and other stakeholders;
- (d) Assist in meeting national and international obligations for the ESM of household waste.

13. The Guidance should aim to be relevant for the assessment and development of management options for household waste in:

- (a) Rural and urban settings;
- (b) Temperate and tropical settings and various geographical scales;
- (c) Developing countries, countries with economies in transition and small island developing states (SIDS);
- (d) Different socio-economic contexts and cultural groups.

## **IV. Development of the guidance document**

14. The Guidance on the ESM of household waste will build on existing work facilitated by the Basel Convention, such as Environmentally Soundly Management.

15. The approach of the Guidance is to provide inspiration and a decision-making road-map by providing generic analysis of barriers and benefits of different steps in waste management.

16. It will seek to elaborate on the question - how to identify and implement best practices in the ESM of household waste. It could set out what is meant by good practice, why it is important, who should implement it and how it can be made a requirement. The guidance is meant to help the readers in facilitating their own decisions in using the most appropriate waste management options.

17. To identify relevant modules, readers will need to understand who they are, what they have and what their needs are. A checklist may help in conducting such a situation analysis, which could be provided as module 0 (See annex III to document UNEP/CHW/HWPWG.1/2).

18. The document will be divided into a series of modules that will provide guidance to practitioners and managers involved in household waste management. The modules will use existing waste management examples to illustrate good/best practice solutions, lessons learned, challenges and barriers to ESM of household waste.

19. The document will be designed in a tiered approach to address needs of audiences at different levels of need.

20. The good/best practice ESM could follow the principles of the waste hierarchy – reduce the quantity of waste generated, then maximise the amount that can be reused or recycled, recover energy and dispose. The guidance could primarily serve household waste management issues that are relevant to developing countries, countries with economies in transition and small island developing states (SIDS), however it will draw upon important examples from industrialized countries.



Source: Basel Convention

**Table 1: How to identify a Case Study?**

Case Study
<p>The case studies will generally focus on individual segments of the waste management process. They should illustrate lessons learned (including challenges and barriers) and provide sufficient information to describe existing approaches in waste management.</p> <p>Case studies that illustrate innovative approaches and solutions should be a priority.</p> <p>In addition to describing the key features, evolution and results of each initiative, all case studies should include a description of the conditions that have determined their success and lead to the establishment of good/best practice.</p> <p>The good/best practices determined from the case studies will be tabulated to support the development of options and strategies in the planning, approval, assessment, delivery and operation of household waste management solutions.</p>

**Table 2: What is a good/best practice?**

Good/best practice
<p>Good/best practice*, related to the household waste management, will follow the impact-oriented approach, which is defined as the ultimate result of the process leading to improved environmental or human health conditions. The good or best practice will indicate a positive trend in terms of the end result, which is preferably, but not necessarily, measurable (e.g. an increase in recycling rates). Good/best practice can apply to any aspect of the waste management modules defined within the scope of the Household Waste Partnership (e.g., policy, prevention, collection).</p> <p>The criteria of good/best practices will consider globally and/or nationally promoted codes of conduct and ethics in waste management and compliance to international treaties.</p> <p>Summary of the main features to be described in good/best practices:</p> <ol style="list-style-type: none"> <li>1. Target: impact-oriented result (at a higher level).</li> <li>2. Replicability: practice can be easily used elsewhere.</li> <li>3. Effectiveness: preferably measurable indicators.</li> <li>4. Respectful: occupational codes of conducts in waste management respected.</li> </ol> <p>*“Best” practice, as opposed to “good” practice, requires sufficient comparative studies to be designated as best practice. In some areas of household waste management best practice may not as yet be defined. However good practice can be defined as practices that a variety of stakeholders perceive as good practice.</p>

## Annex II

### **Draft outline of the overall guidance document on the environmentally sound management of household waste as agreed at the first meeting of the Household Waste Partnership working group**

**Executive summary [Main outcomes of this document, list of recommendations]**

**Glossary of terms and definitions**

**Overall introduction [One page to explain why people should read/use, setting scenes]**

1. Ultimate goal – achieving ESM of household waste;
2. Purpose, target audience;
3. Why waste management is important, cost of inaction, consequences;
4. Waste management hierarchy;
5. EPR, Precautional principle, Circular economy, Sustainable development, SDG12 indicator12.5, 12.4;
6. Why household waste is part of the Basel Convention;
7. Transboundary movements of household waste;
8. Health and safety aspects;
9. Market drivers;
10. Stakeholder engagement, communication.

#### **Module 0. Assessment and decision making**

[Note: Matrix table that facilitate situation analysis and evaluating and selecting appropriate options related to prevention, minimization, BAT/BEP and emerging technologies for recovery and disposal of household waste in an environmentally sound manner.]

#### **Module 1. Policy, legislation and institutional framework for ESM of household waste**

[Note: See also ESM guidance]

1. Strategic waste management planning;
2. Inventories of the waste streams generated (importance of data gathering);
3. Regulatory frameworks (model legislation, etc.) [Note: Could have a table];
  - (a) Socio-economic instruments and financing models including job creation [Note: Title to be renamed];
  - (b) Responsibilities and duties of each stakeholder [Note: Should not have overlapping decisions, one strategic waste management approach applied, role of generators, define the responsibilities of stakeholders, should have legislation to give mandates, table of model legislation, could adapt “Table 1 National Legal Framework for ESM and Implementation Capacity”];
  - (c) Including informal sector into formal waste strategy;
4. Institutional capacity building [Note: Transparency in operation and accountability, enforcement].

#### **Module 2. Sustainable financing for ESM of household waste**

[Note: See also ESM guidance]

1. Container deposits;
2. Prepaid bags;

3. Taxation;
4. Polluter Pays Principle;
5. Socio-economic instruments and financing models including job creation [Note: Title to be renamed];
6. Understanding value chain (creation of network);
7. Development of markets
8. Financing model/business model

### **Module 3. Actions for prevention and minimization of the generation of household waste**

[Note: See also ESM guidance, focus on concrete activities]

1. Eco-design, financial incentives, prohibition/voluntary [Note: e.g. to reduce quantity of household waste, to reduce hazardous content, to improve recyclability, taxation, prohibition is possible if there are alternatives, how to involve producer];
2. Changing behaviour of retailers;
3. Changing public behaviour to reduce consumption (How to stimulate household to reduce household waste) [Note: Choice of packaging and reduction of food waste can be addressed];
4. Providing household waste community composting to reduce household waste that goes to landfill;
5. Direct reuse.

### **Module 4. Separation, collection and transport**

[Note: Add general introductory paragraph on the consideration of factors deciding the types of collection services that can be put in place: convenience and practicality - geography, climate, population make up, type of property, size, type of waste, waste receptacles, structural factors, cost]

1. Sorting of the waste streams and utilization of the waste resources;
  - (a) Source separation [Note: Highlight that this is the most important];
  - (b) Sorting by materials recovery facility (opportunity for job creation);
2. To get clean uncontaminated materials to use as resources
  - (a) Reduce the harmfulness of products that becomes wastes (producers), choose less harmful products (consumers);
  - (b) Not to mix non-harmful waste with harmful waste;
  - (c) Monitoring and enforcement.

### **Module 5. Reuse (except direct reuse)**

1. Preparation for reuse through repair or refurbishment;
2. Collection of materials and household goods (e.g. textiles, furniture) with an intention of reuse (including for charity);
3. Upcycling.

### **Module 6. Recycling**

[NOTE: See also guidance in preparation by ESM EWG]

1. Recycling processes for different waste streams;
2. Pull measures [Note: For example, quality/recycling standards, recycled contents];
3. Economic analysis of recycling [Note: Cost for processing, job creation].

**Module 7. Recovery processes and treatments**

1. Mechanical and biological treatment [Note: Composting, the organic component will be recycled];
2. Large scale composting;
3. Waste to energy technologies;
  - (a) Incineration for energy recovery - heating and cooling;
  - (b) Ash processing and management;
  - (c) Biofuels [Note: Pyrolysis, gasification, slag management];
  - (d) Anaerobic digestion [Note: Obtaining fuels through anaerobic digestion].

**Module 8. Final disposal and elimination of household waste**

1. Incineration [Note: Safe handling of ash, energy recovery and coprocessing, in certain countries ash is again incinerated];
2. Landfill of residual waste [Note: Including compacting];
3. Permanent or interim storage of special waste (hazardous components of household waste).

**Module 9. Awareness raising and communication**

1. Communication strategy, including to enhance stakeholder engagement
2. Education and two-way conversations
3. Changing behaviour
4. Communication, including through social media
5. Policy within government organizations and schools
6. Involving private sectors, including to conduct awareness campaign
7. Innovative approach to communication e.g. apps

**Annex III**

**Initial consideration on developing “module 0 on assessment and decision making”**

[Text to explain what this check list is for, what self-assessment is for. Mind map.]

To ensure ESM of household waste, you need to avoid the following:

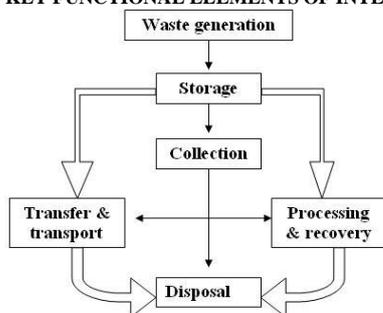
- Open burning
- Improper disassembly
- ...

Check list to identify your status, map out your needs, and find which guidance to use.

Scoring system could be used to identify situations.

<b>1 Very poor</b>	<b>2 Poor</b>	<b>3 Moderate</b>	<b>4 Good</b>	<b>5 Very good</b>
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**KEY FUNCTIONAL ELEMENTS OF INTEGRATED WASTE MANAGEMENT**



Source: www....

Theme	Questions	Possible situations	Possible needs	Module to use
<b>KEY FUNCTIONAL ELEMENTS OF INTEGRATED WASTE MANAGEMENT</b>				
<b>WASTE GENERATION (Quantification)</b>	Do you know how much waste you are generating?	Yes/No/Limited	Need to have quantification system to develop appropriate waste management systems  Methodology for data collection  Quantify the waste being generated	Quantify the waste being generated  Module 1
	Do you have practices for prevention and minimization of waste?	Yes/No		Module 3  Module includes topic on recovery, reuse  Currently the group has no

Theme	Questions	Possible situations	Possible needs	Module to use
				participation from producers' side
	Do you have relevant financial system?	Yes/No		Module 2 See guidance on finance (to be developed)
	Do you have relevant legislation?	Yes/No		Module 1 includes topic on best practices
<b>WASTE GENERATION (Characterization-determination of physico-chemical properties and radiological e.g. moisture content, ash content, calorific values: to identify appropriate treatment)</b>	What types of waste do you have?	You don't know	Develop inventory	Inventory guidance Module 3 source separation Module 5 recycling
	How are you characterizing waste?	Not doing Using scientifically	Characterize waste so that the information can also be communicated to market/end users	
	Do you have waste list or codes for different types of waste?	Yes/No		
	Do you have relevant financial system?	Yes/No		See guidance on finance (to be developed)
	Do you have relevant legislation?	Yes/No		Module 1 includes topic on best practices
<b>WASTE GENERATION (Composition of waste for potential to recovery)</b>	Do you know the composition of each types of waste?	Yes/No	Identify composition so that certain types of waste can be recycled	
	How frequently do you undertake waste composition analysis?	Not doing Doing periodically		
	Do you have relevant financial system?			See guidance on finance (to be developed)
	Do you have relevant legislation?			Module 1 includes topic on best practices
<b>STORAGE (before collection, e.g. household waste stored in a bin, i.e. Household waste receptacles)</b>	Do you have storage system for household waste before collection? (ESM?)			
	Do you have relevant financial system?	Yes/No		See guidance on finance (to be developed)
	Do you have relevant legislation?	Yes/No		Module 1 includes topic on best practices

Theme	Questions	Possible situations	Possible needs	Module to use
<b>COLLECTION</b>	How are you collecting? Do you have centralized collection system?			
	How frequently you are collecting?			Module 3
	Do you do source segregation?			
	Do you have relevant financial system?	Yes/No		See guidance on finance (to be developed)
	Do you have relevant legislation?	Yes/No		Module 1 includes topic on best practices
<b>TRANSFER AND TRANSPORT</b>	How are you transporting waste?			
	Do you have finance system for transportation?			See guidance on finance (to be developed)
	Do you have transfer stations?			
	Do you have relevant financial system?	Yes/No		See guidance on finance (to be developed)
	Do you have relevant legislation?	Yes/No		Module 1 includes topic on best practices
<b>PROCESSING AND RECOVERY</b>	What infrastructure do you have for processing recovery?	Material recovery facility		
		Compost plant		
		Recycling plant		
		Waste energy plant		See guidance on finance (to be developed)
	Do you have relevant financial system?	Yes/No		Module 1 includes topic on best practices
Do you have relevant legislation?	Yes/No		National ESM capacity	
<b>DISPOSAL</b>	What infrastructure do you have for disposal?	Sanitary landfill	Put appropriate infrastructure in place Develop national capacity	
		Open dumping		See guidance on finance (to be developed)
	Do you have relevant financial system?	Yes/No		Module 1 includes topic on best practices
	Do you have relevant legislation?	Yes/No		

Theme	Questions	Possible situations	Possible needs	Module to use
<b>CROSSCUTTING ELEMENTS</b>				
<b>LEGISLATION</b>	Do you have policy or legislation framework?		Put appropriate legislation/target in place Develop national capacity	Module 1 policy and regulatory framework
	Do you have legislation for EPR?			
	Do you have challenges of enforcement of legislation?			
	Do you have control system put in place?			
	Do you have means to address informal workers?			
	Do you have illegal dumping?		Put sustainable financing in place	To be developed
<b>STAKEHOLDERS</b>	What is your policy for contracting? Is it transparent?			
<b>INFRASTRUCTURE</b>	Do you have appropriate infrastructure for ESM of household waste?			
	What equipment do you have?			
<b>FINANCE</b>	Do you have financing system?		Put financing system in place	
	Do you have PPP?		Put PPP in place	
	Do you have cost recovery mechanism?		Put cost recovery mechanism in place	
	Do you have sustainable financing		Put sustainable financing in place	To be developed
<b>SOCIO-CULTURAL ASPECTS</b>	How are you addressing socio cultural aspects in			
	How are you addressing gender			
<b>AWARENESS</b>	How high is the public awareness of household waste ESM		Education, dissemination of information	Factsheets developed by ESM EWG
	How high is the awareness of the government personnel on household waste ESM			
	Seeing waste as resource?		Raise awareness as waste as resources	

## Annex IV

### Priorities in developing modules and the composition of the drafting groups

Modules	Priority*	Timeline	Drafting group/lead**
Module 0. Assessment and decision making	+++++	By July 2018	<u>Ms. Talat Afzal</u> , Mr. Artak Khachatryan, Mr. Dharmesh Shah, Mr. Godfrey Oluka, Ms. Jewel Joy Batchasingh
Module 1. Policy, legislation and institutional framework for ESM of household waste	+++++		<u>Ms. Jaime Short</u> , Ms. Magalid Luján Cutina, Ms. Gabriela Nair Medina, Mr. Marco Claudio Buletti
Module 2. Sustainable financing for ESM of household waste	++++		<u>Mr. Ross Bartley</u>
Module 3. Actions for prevention and minimization of the generation of household waste	+++++++	By July 2018	<u>Mr. Dharmesh Shah</u> , Mr. Prakash Kowlessar, Mr. Martin Jakuš, Ms. Jewel Joy Batchasingh
Module 4. Separation, collection and transport	+	By July 2018	<u>Mr. Dharmesh Shah</u> , Mr. Prakash Kowlessar, Mr. Martin Jakuš, Ms. Jewel Joy Batchasingh
Module 5. Reuse (except direct reuse)	+		Mr. Martin Jakuš, Mr. Ross Bartley
Module 6. Recycling	+		<u>Mr. Ross Bartley</u>
Module 7. Recovery processes and treatments	+		<u>Mr. Muhammad Ali Zumar Bundhoo</u> , Ms. Jaime Short
Module 8. Final disposal and elimination of household waste	+		<u>Mr. Artak Khachatryan</u> , Ms. Gabriela Nair Medina
Module 9. Awareness raising and communication	+		<u>Ms. Talat Afzal</u> , Mr. Martin Jakuš, Mr. Godfrey Oluka, Ms. Pauline Dhlakama

\* The priority is indicated with "+" sign: more signs for modules with higher priority.

\*\* The name of the lead is underlined. The drafting group members may be further adjusted.

## Annex V



### Household Waste Partnership Basel Convention on the control of transboundary movements of hazardous wastes and their disposal

#### Key challenges faced by municipalities in developing/transition countries:

Escalating challenges in household waste management across the globe are widely acknowledged and draw attention to the importance of its environmentally sound management. While most developed countries already introduced complex household waste management practices, many developing and transition countries are still struggling with sound management of the ever-increasing volume of household waste.

The problems related to household waste may be attributed to many causes such as:

- Poverty and high rate of population growth;
- Unplanned urbanization;
- Increase in quantities and volumes of household waste;
- Increase in waste management costs/lack of financial resources;
- Inefficient institutional arrangements;
- Inappropriate technology and equipment;
- Inadequate legislation;
- Low awareness of the public and informal sector;
- Enforcement.

#### Environmental impacts of household waste:

A significant part of household waste in developing and transition countries is burnt in open air in the back yards or at uncontrolled dumping sites and poorly managed landfills. Overflowing landfills are often intentionally set on fire to reduce the total volume of deposited waste. Open burning releases POPs and other hazardous chemicals into air. Leachate from landfills and dumpsites contaminates surrounding soil and water. Plastic waste comprises a large portion of household waste and plastic pollution in oceans, rivers and lakes is a great concern globally.

#### Household Waste and the Basel Convention:

The environmentally sound management of household wastes includes source separation, collection, transportation, storage, recycling, energy recovery and final disposal. Based on their origin, composition and characteristics, household waste may contain hazardous materials co-mingled with non-hazardous materials. Because of the potential for contamination with hazardous substances, the Basel Convention classifies waste collected from households as requiring special consideration (Basel Convention, Annex II, Y46).

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Website: <http://www.unep.int/instruments/2002/2002a.htm>



#### What is the Household Waste Partnership?

The Household Waste Partnership was established by the Conference of the Parties to the Basel Convention in 2017 to address this important issue and to provide technical assistance worldwide, supporting all countries to benefit from already available solutions for environmentally sound management, including issues such as separation at source, collection, transport, storage, recycling, energy recovery and final disposal.

#### Objectives of the Partnership:

- To promote the environmentally sound management of household waste including its prevention and minimization
- To enable the decoupling of economic growth and environmental impacts associated with the generation of household waste and its initial handling by the public in their households

#### Benefits of the Partnership:

Through global information exchange, sharing of best practices by key stakeholders in the field, development and provision of technical guidance based on the latest science available, active engagement of the private sector for enhanced action to promote environmental sound management of wastes, including issues such as extended producer responsibility, active engagement of the civil society and the general public through targeted awareness raising, the Partnership provides the necessary infrastructure to address this global challenge in an efficient and innovative way.

#### Technical assistance through the Partnership:

These technical assistance activities will be based on scientific assessments undertaken through rigorous review of scientific data in the frame of the Partnership involving a wide variety of stakeholders, including namely academia, industry and civil society. The Partnership provides an efficient platform for information exchange, linking scientific findings, technical solutions, and concrete on-ground actions.

#### Strengthen policy, legal and institutional framework:

To ensure the progress in environmentally sound management of household waste and the improvement of social conditions in communities that are dependent on waste as a source of revenue (i.e. informal sector), it is crucial to strengthen policy, legal and institutional framework at both national and local levels.

### Household Waste Partnership Basel Convention on the control of transboundary movements of hazardous wastes and their disposal



#### Guidance to be developed:

The guidance to be developed by the Partnership will address the prevention and minimization of household waste, waste characterization and data collection for the traceability of waste throughout its life-cycle, separation at source, recycling, use of waste for energy recovery as well as final disposal, including the sound handling of hazardous substances and objects contained in household wastes.

These are key aspects of environmentally sound management that will assist countries to work towards meeting the Sustainable Development Goals.

#### Enhance public awareness and participation:

The Partnership also aims to enhance awareness-raising through education and training on the environmentally sound management of household waste, and enhance participation by the public in household waste management activities and decision-making at the national level.

#### Membership:

The membership of the Partnership is open to all Parties and observers of the Basel Convention, Governments, regional and local authorities, intergovernmental and non-governmental organizations including private sector, academia, civil society and regional/ coordinating centers of the Basel and Stockholm Conventions are all welcome to join the Partnership.

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## Annex VI

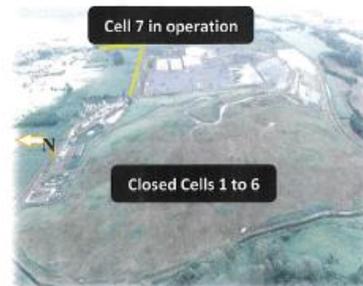
### THE MARE CHICOSE LANDFILL SITE

The Mare Chicose landfill is an engineered landfill and the sole official sanitary landfill, located in the south eastern part of Mauritius.

Landfilling operations at the Mare Chicose landfill commenced in 1997 over Cell 1 and continued successively on adjacent cells that have been constructed in a staged manner, starting from Cell 1 to Cell 7. The landfill site covers an area of about 45 ha with an effective landfilling area of about 36.7 ha.

Mare Chicose Landfill Fact Sheet	
<b>Location</b>	Mare Chicose, Grand Port District
<b>Operational since</b>	November 1997
<b>Land ownership</b>	Compagnie de Beau Vallon
<b>Average daily tonnage of waste</b>	1,300 tons
<b>Amount of waste landfilled in 2017</b>	481,144 tons
<b>Waste generation growth per annum for period 2005 to 2017</b>	Approximately 2.4%
<b>Approximate volume of leachate carted away in 2017</b>	246,823.3 m <sup>3</sup> to Roche Bois pumping station
<b>Annual rainfall for 2017</b>	2,763.5 mm
<b>Total daily cover effected in 2017</b>	344,912 m <sup>2</sup>
<b>Total amount of gas flared in 2017</b>	12,521,390 Nm <sup>3</sup>
<b>Liner system (Cell 7)</b>	Double HDPE liner system with electronic leak detection system
<b>Targeted coefficient of permeability</b>	$1 \times 10^{-12}$ m/s or less

**Capping layer on cell 7 waste mass** 250 g/m<sup>2</sup> geomembrane superimposed by 0.75 mm LDPE geomembrane, 150 mm thick drainage layer, 500 mm thick soil layer including 200 mm thick topsoil and grass planting



Municipal Solid Waste collected from the different districts of Mauritius first transit transfer stations, where they are compacted and then transported to the Mare Chicose landfill, where final disposal occurs in an environmentally sound manner. The landfill site is operated by a private Contractor under the supervision of a Consultant.

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### 1<sup>ST</sup> FACE-TO-FACE MEETING OF THE HOUSEHOLD WASTE PARTNERSHIP WORKING GROUP

#### Field Trips

Interim Hazardous Waste Storage Facility  
 E-Waste Recycling Facility  
 Mare Chicose Sanitary Landfill

Mauritius  
 14<sup>th</sup>-17<sup>th</sup> May 2018



**INTERIM STORAGE FACILITY FOR HAZARDOUS WASTES AT LA CHAUMIERE**

As part of its strategy for the management of hazardous chemical wastes in Mauritius, the Ministry of Social Security, National Solidarity, and Environment and Sustainable Development which is the enforcing agency for hazardous wastes in Mauritius, has set-up an interim hazardous waste storage facility at La Chaumière, Bambous, whereby hazardous chemical wastes stored at generators' premises are inspected, tested, repackaged and labeled prior to collection and storage at the facility and subsequently exported for recovery and disposal at licensed facilities.

The facility has been designed to receive hazardous chemical wastes such as laboratory and industrial chemical wastes (acids, alkalis, heavy metals, spent organic solvents, organic sludges), paint wastes, obsolete pesticides, pharmaceutical wastes, waste gas cylinders and waste aerosols, amongst others, which cannot be disposed of locally.

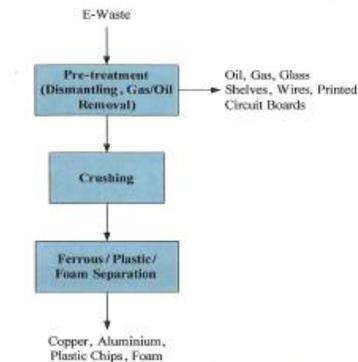


<b>Geographical Location:</b>	La Chaumière, Bambous
<b>Storage Capacity:</b>	1,600 tonnes of hazardous wastes
<b>Year of Construction:</b>	2015-2016
<b>Cost of Construction:</b>	~ USD 6.5 Million
<b>Present Contractor:</b>	Polycen S.A
<b>Contract Value (Operation):</b>	~ USD 9 Million
<b>Contract Duration:</b>	5 years
<b>Start of Operation:</b>	24 April 2017
<b>Facility comprises:</b>	Administration and laboratory building Quarantine and packaging building 3 separate hazardous waste storage buildings: <ul style="list-style-type: none"> <li>• Building No. 1: Toxic hazardous wastes, mercury containing wastes and miscellaneous hazardous wastes</li> <li>• Building No. 2: Corrosive liquid and solid wastes, wastes liable to spontaneous combustion and organic peroxides</li> <li>• Building No. 3: Flammable solids and liquids and oxidising substances</li> </ul>
<b>Operation to-date:</b>	Assessment visits at >170 different organisations >215 samples collected and analysed Collection of approx. 28.5 tonnes of hazardous wastes from > 65 organisations 4 emergency interventions carried out

**ELECTRICAL AND ELECTRONIC WASTE MANAGEMENT IN MAURITIUS**

Electrical and electronic waste (E-waste) generated by households is dismantled and/or recycled by local E-waste recyclers and exporters such as BEM Recycling located at La Chaumière, in the western part of the island.

The company, which has been running for more than 19 years, specialises in the collection, dismantling and recycling of all types of end-of-life household appliances ranging from mobile phones to refrigerators. The recycling process involves the following main operations:



This recycling facility contributes towards (i) a safe environment and eco-system (ii) the preservation of energy and natural resources, (iii) saving landfill space and (iv) the creation of direct and indirect employment opportunities.

