GERAKAN INDONESIA DIET KANTONG PLASTIK FOR SUBMISSIONS (part a)

<table>
<thead>
<tr>
<th>Name of country (for Members of the committee)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of organization (for observers to the committee)</td>
<td>Gerakan Indonesia Diet Kantong Plastik (GIDKP) - the Indonesia Plastic Bag Diet Movement</td>
</tr>
<tr>
<td>Contact person and contact information for the submission</td>
<td>Rahyang Nusantara</td>
</tr>
<tr>
<td>Date</td>
<td>August 15, 2023</td>
</tr>
</tbody>
</table>

Elements not discussed at INC-2

1. Scope

Proposed scope:
Discussion and promotion of the types of substances, materials, products and behaviors need to be addressed and integrated into the building of reuse ecosystems as a solution to the single-use plastics problem.

Explanatory Text¹:
Reuse is a system, not packaging, but the packaging itself is significant for the environmental footprint of the reuse system. Material choice for reusable packaging is complicated by the need to be durable, lightweight, and recyclable, have low toxicity, hygienically protect goods and be suitable for multiple washing sequences at high temperature. Environmental impacts should be measured at all stages of the reusable packaging life cycle including water, emissions and energy use. Reusable packaging should use recycled material where possible, due to the emissions caused by virgin material extraction, processing and production. In addition, the packaging material should be recyclable to the same or similar type of product, not downcycled, at end-of-life. Overall, packaging should avoid toxicants, mixed materials, non-recyclable content and multilayering. Reuse systems should be material agnostic. There is no ideal material for reuse systems, the choice should be based on the system requirements. If used beyond its sustainability breakeven point, any material can be beneficial compared to virgin plastic production. A part of any material selection is a life cycle assessment which needs to take into account all stages of the life cycle, including extraction, processing, production, use and end-of-life.

Table 1. Examples of material options for reusable packaging

<table>
<thead>
<tr>
<th>Material</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
</table>
| Plastic polypropylene reusable | • Lightweight  
• Malleable  
• Can be coloured  
• Recyclable but limited times before | • Transmits heat  
• Microplastic release  
• May contain toxicants |

<table>
<thead>
<tr>
<th>Material</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stainless Steel</td>
<td>- Very durable</td>
<td>- Expensive to purchase,</td>
</tr>
<tr>
<td></td>
<td>- Feels high quality</td>
<td>- Extraction and production emit high levels of GHG</td>
</tr>
<tr>
<td></td>
<td>- Thermally insulative if double layered,</td>
<td>- Attractive - leading to low return rates.</td>
</tr>
<tr>
<td></td>
<td>- Recyclable</td>
<td>- Not microwaveable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Contamination of environment at iron ore extraction sites</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- High energy for production</td>
</tr>
<tr>
<td>Glass</td>
<td>- Attractive to consumers,</td>
<td>- Resource intensive to produce,</td>
</tr>
<tr>
<td></td>
<td>- Inert</td>
<td>- High GHG emissions from production</td>
</tr>
<tr>
<td></td>
<td>- Endless recycling</td>
<td>- Energy intensive for production</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Heavy to transport</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- High breakage levels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Silica removal damages</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Ecosystem damages</td>
</tr>
<tr>
<td>Ceramic</td>
<td>- Familiar</td>
<td>- High breakage levels</td>
</tr>
<tr>
<td></td>
<td>- Inert</td>
<td>- Unsuitable for many reuse systems</td>
</tr>
</tbody>
</table>

- Degradation
- Pollution of areas surrounding extraction and production sites
- High emissions of carbon dioxide, sulphur oxides, methanol, nitrous oxides, and other volatile organic compounds
- Can potentially contain over 4000 chemicals, some of which are hazardous to human health
- Plastic can deteriorate in high heat, humidity, and with UV exposure which affects durability

- Plastic can deteriorate in high heat, humidity, and with UV exposure which affects durability

- Stainless Steel
- Very durable
- Feels high quality
- Thermally insulative if double layered,
- Recyclable

- Expensive to purchase,
- Extraction and production emit high levels of GHG
- Attractive - leading to low return rates.
- Not microwaveable
- Contamination of environment at iron ore extraction sites
- High energy for production

- Glass
- Attractive to consumers,
- Inert
- Endless recycling

- Resource intensive to produce,
- High GHG emissions from production
- Energy intensive for production
- Heavy to transport
- High breakage levels
- Silica removal damages ecosystems

- Ceramic
- Familiar
- Inert

- High breakage levels
- Unsuitable for many reuse systems
Can be broken down to ceramic rubble but not recyclable

- Aluminium
  - Thermally insulative if double walled
  - Endlessly recyclable
  - Not microwaveable
  - Bauxite strip mining damages environment
  - High energy use
  - High GHG emissions
  - Perfluorocarbon emissions

A case study in Indonesia\(^2\) observed reusable packaging options for food and beverage. This study aimed to examine the use of reusable packaging in ready-to-eat processed food and its relevance to food safety standards available in Indonesia. This study identified several types of reusable packaging materials used by ready-to-eat processed food business actors including business partners for reuse and observation of their use.

Table 2. Types and materials of ready-to-eat processed food packaging for reuse

<table>
<thead>
<tr>
<th>No.</th>
<th>Packaging name (common name)</th>
<th>Packaging material</th>
<th>Pictures (from various sources)</th>
<th>The usual logo on the packaging</th>
</tr>
</thead>
</table>
| 1   | Collapsible lunch box       | Cap part: polypropylene (PP)  
Seal part on cap: rubber  
Bottom: silicone rubber | ![Images](https://example.com/images) | ![Logo](https://example.com/logos) |
| 2   | Thinwall                    | Overall: PP        | ![Images](https://example.com/images) | ![Logo](https://example.com/logos) |
| 3   | Plastic lunch box (insulated and not insulated) | Overall: PP | ![Images](https://example.com/images) | ![Logo](https://example.com/logos) |

<table>
<thead>
<tr>
<th></th>
<th>Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Aluminum stacking rack</td>
<td>Overall: aluminum</td>
</tr>
<tr>
<td>5</td>
<td>Stainless steel stacking rack</td>
<td>Overall: stainless steel</td>
</tr>
<tr>
<td>6</td>
<td>Glass container</td>
<td>Cap: PP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Also available with a silicone rubber lid.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Body: glass/pyrex</td>
</tr>
</tbody>
</table>

**Logo Description:**

- Food tare logo, indicating that the packaging is safe for food packaging. It is regulated in the Regulation of the Minister of Industry Number 24/M-IND/PER/2/2010.

- The recycling code logo number 5 indicates that the type of plastic raw material used is PP and can be recycled. It is regulated in the Regulation of the Minister of Industry Number 24/M-IND/PER/2/2010.

- Freezing safe packaging logo. If this logo is visible on the packaging, it means that consumers can freeze the product without having to open the package first.

- Microwave-safe packaging logo. There is another logo with a similar meaning with the addition of the word 'micro' under the wave image.

- Dishwasher safe packaging logo.

The PR3 (Partnership to Reuse, Refill, and Replace Single-Use Plastic) Program from RESOLVE in collaboration with various parties has made Reusable Packaging System Design Standards\(^3\). The standard sets core requirements for aligning reuse systems between companies and brands, allowing a wide range of businesses to easily plug into shared infrastructure. The standard helps to minimize

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reuse system costs and investor risks, while maximizing accessibility, social equity, and environmental performance across the reuse supply chain.

Table 3. Reusable Packaging System Design Standards

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part 1: Collection points</td>
<td>Collection point requirements, including machine and bin design, labeling and digital requirements, and guidance for collection point placement. Key audiences: Collection Point Designer, Retailer/ Venue, City/ Government</td>
</tr>
<tr>
<td>Part 2: Containers</td>
<td>Container design requirements, including minimum return and use cycles, materials, shape, durability, labeling and digital tagging. Key audiences: Container Designer</td>
</tr>
<tr>
<td>Part 3: Digital</td>
<td>Digital requirements for containers and collection points, including the basic data elements that must be included in QR codes or other digital tags. Key audiences: Collection Point Designer, Container Designer, System Administrator</td>
</tr>
<tr>
<td>Part 4: Return incentives</td>
<td>Requirements for establishing and administering deposit systems and other incentives that encourage consumers to return containers. Key audiences: Collection Point Designer, Container Designer, Retailer/ Venue, System Administrator</td>
</tr>
<tr>
<td>Part 5: Labeling</td>
<td>Requirements for labeling reusable containers and collection points and for signage at participating venues. Includes the reuse symbol, colors, fonts, etc. Key audiences: Collection Point Designer, Container Designer, Retailer/ Venue</td>
</tr>
<tr>
<td>Part 6: Reverse logistics</td>
<td>Requirements for the proper and safe handling of containers from pickup at a collection point through redistributed for refilling. Key audiences: Logistics Provider</td>
</tr>
<tr>
<td>Part 7: Washing</td>
<td>Requirements for washing, sanitizing, and handling of foodware containers, including cups and take-away food packaging. Key audiences: Washing Provider</td>
</tr>
</tbody>
</table>

2. Principles
Proposed principles:
On the waste hierarchy principle, prevention, reduction, and reuse is a priority principle over recycling and disposal to waste-to-energy and must be integrated into over all principles and obligations. To support the waste hierarchy, the 4Rs Models Towards Sustainable Society introduced by Prof. Paul Connett also put Reduce and Reuse as the first step.

Explanatory Text:
The 4Rs Models Towards Sustainable Society introduces the 4 (four) R method is known as a waste management solution towards a sustainable society. These solutions are:

1. Reduce. Reduce means reducing the use of an item or human behavior patterns that can reduce waste production, and not doing excessive consumption patterns. For example, reducing the use of single-use materials, choosing products with recyclable packaging, and avoiding the use and purchase of products that produce large amounts of waste.
2. Reuse. Reuse means using and improving the entire material, simpler than recycling the constituent materials, reducing the impact of the raw extraction and manufacturing process.
3. Recycle. Recycle or recycling is disposing of material to the industrial sector to be reused in the production process. So that this can save raw materials and energy.
4. Redesign. Redesign or redesign is to do innovative packaging product design so that it is more environmentally friendly and does not have the potential to cause waste after its use. The redesign is essential in making the fundamental transition from upstream to downstream from the source of the waste problem.

Based on the law mandate of waste management and its derivatives in Indonesia, to address the increase in the amount of waste generation, a waste management with a comprehensive approach moving from upstream to downstream is needed. The comprehensive approach referred to is reusing waste with economic and use values for energy use, compost, fertilizer, and industrial raw materials. As a result, when the products return to the environment, they can be safely accepted by nature. This approach is carried out through waste reduction activities including restriction, reuse and recycling of waste as well as waste handling activities such as sorting, collecting, transporting, processing and final processing. According to the elucidation, the Government Regulation on Household Waste defines waste generation restrictions as an action to avoid the use of single-use items. The prohibition norms effectively facilitate the implementation of these obligations by requiring any person not to produce/use single-use plastics. In addition, there are references for each region targeted for waste reduction and handled as regulated in Presidential Regulation Number 97 of 2017 on National Policies and Strategies for the Management of Household and Household-like Waste through:

- Reduction of household and household-like waste by 30% (thirty percent) of the generation rate of household and household-like waste prior to the existence of national policies and strategies for reducing household and household-like waste in 2025; and
- Handling household and household-like waste is 70% (seventy percent) of the generation rate of household and household-like waste prior to the national policy and strategy for reducing household and household-like waste in 2025.

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To support the government's goals, the first step to take is to equalize our perception to see the use and economic value of waste, for it to be reused before transported to the landfill. This perception is formulated into a circular economy concept. This regulation, in principle, is a support and an embodiment of the circular economy concept. This concept allows the reduction in consumption of materials, waste, and primary emissions which have been polluting the environment, while still maintaining economic growth. Circular economy is an economy in which all productions use consumption waste material, and all of it becomes reproductive material.

Figure 1. Circular economy (Source: Story of Plastic, 2019)

In line with this concept, the Government of Republic of Indonesia requires all producers (manufacturers, food/beverage services, and retailers) to have a plan (with a deadline until 2030) in carry out Waste Reduction through the following:

1. Waste generation restriction, through:
   a. Banning on production using sachet plastic packaging less than 50ml/50gr
   b. Banning on production using plastic straws in beverage packaging
   c. Banning of production using containers/packaging of PVC and polystyrene
   d. Using embossed labels to replace plastic stickers or printed ink
   e. Determining certain minimum size standards for the production of plastic, can, glass and plastic packaging
   f. Banning on food and beverage services and retailers for providing plastic bags, single-use cutlery and drinking utensils

2. Waste Recycling through:
   a. using 100% recyclable materials
   b. using 50% of the recycled content of their own products
   c. conducting closed loop recycling or open loop recycling
   d. using non-plastic bags, recyclable cutlery and drinking utensils, made from 50% recycled materials.

3. Waste reuse through:
   a. using reusable packaging, packaging containers and/or products.

Remarks on available regulations emphasizes that:
a. The following products, product packaging and/or containers are prohibited from use, will take effect on January 1, 2030:
   i. plastic straws,
   ii. foam plastic food containers,
   iii. single-use plastic shopping bags, and
   iv. plastic foam

b. In terms of that Regional Government has established a policy of prohibiting the use of products, product packaging and/or containers with a time faster than January 1, 2030, Producers are required to comply with the policy and adjust it into its planning.

Apart from having a potential to reduce the environmental impacts, the circular economy concept, which has begun to be partly implemented through the producers’ waste responsibility, is also expected to become an economic strategy through the creation of employment. By suppressing waste production, using the more efficient energy alternatives and extending the life of resources, the concept of a circular economy will be the answer to the climate change challenges. Also, it can improve people’s prosperity so they can contribute to give environmental, social, and economic benefits on a large scale.

By maintaining the goal of reducing waste and maximizing the existing resources, the circular economy concept applies the 5R principle, i.e., reduce by reducing the use of raw materials from nature, reuse by optimizing the use of reusable materials, recycle by using recycled materials, recovery through recovery process as well as repair by making repairs. Therefore, this concept is expected to be able to minimize the wasted energy, emissions released into the air, and waste generated by shortening the production-consumption cycle.

3. Additional considerations

Proposed inputs:

Explanatory Text: