BIO4HUMAN

D4.2. Gap Analysis Report
Annex 1. Template for collecting data (Task 4.2.2)

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Scope:
The annex presents the template for collecting data in the task 4.2.2 in order to analyze SC in different investigation lines. The detailed instructions were included in the template.

Note:
The templates were filled up by the Leaders of Investigation Line based on the gathered information. Based on this filled template the Leaders have prepared a detailed reports presenting the outcomes of their investigations. Those reports were one of the sources used by PRO CIVIS in preparing the D4.2 Gap Analysis Report.

Abbreviations

HA	Humanitarian Action
SC	Supply chain
SW	Solid waste
SWM	Supply chain management

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	Stage of SC	Entity in charge of SC stage	Key SWM supporting elements	Tools and technologies used in HAs	Waste generated	Logistical and organisational solutions used to manage SWM	Tools and technologies applied up to date for SWM	New bio-based technologies and solutions to improve SWM	Final products or services
	1	2	3	4	5	6	7	8	9
		Entity being in charge of each stage of SC at investigated action	*Define its role in limitation and management of SW at all supply chain stages.*	*Select tools and technologies used for proper implementation of HA*	*Select from the group of waste presented below.*	*Indicate solutions used to manage selected SW*	*Present identified tools and technologies currently applied to manage the SW*		
1	Identification of needs								
2	Conceptualization and planning								
3	Procurement – sourcing/ purchasing of products and services								

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4	Goods in warehouses destination								
5	Custom clearance								
6	Transport to the destination country								
7	Transport to the final destinations								
8	Storage at the final destination								
9	Operational logistic at final destination								

NOTE: In the suggested answer we should allow: Don't know/data not available, as this will also provide us information on where the gaps are.

Column 1 – Stages of supply chain and entities being in charge of each stage

Stages of SC are listed below. Add entities being in charge of each stage of SC at investigated actions and if possible, collect relevant data from indicated entities.

1) Identification of needs;
2) Conceptualization and planning;
3) Procurement – sourcing/ purchasing of products and services;
4) Goods collection in warehouses and repacking for transport to final destination;
5) Custom clearance;

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6) Transport to the destination country (often multi-stage and using different modes of transport);
7) Transport to the final destinations – last mile;
8) Storage at the final destination;
9) Operational logistic at final destination - distribution of goods and services.

Column 2 – Entities being in charge of particular stage of the SC

Column 3 - Key SWM supporting elements

Staffing

1) Appropriate staffing on logistics; appropriate technical expertise in logistic organisation, optimization, assessments and mapping of resource and logistical needs, cooperation in logistic aspects with other operator in the region/country;
2) Staff with capacity to assure proper risk assessment, blockages, bottlenecks, and plan possible remedies;
3) Staff to provide assessment of the security situation along the entire SC, and consider reduction or avoid security risks along transport routes.

Logistic optimisation and joint approaches

1) Information sharing with other organisations working in the region/country to promote efficient (re-)use of resources post-implementation;
2) Cooperation with specialised logistic units;
3) Planning of transport routes to ensure the reduction of carbon emissions;
4) Identification and cooperation with local private and public entities dealing with SWM.

Greening

1) Clean-up of the residues along SC during operation and after the action;
2) Collection, concentration and segregation of residues during operation;
3) End-of-life of packaging waste and distributed items, including possible ways to apply 4R approach (Reduce, Reuse, Repair, Recycle/Recover) for packaging and Non-Food Items (NFIs);
4) Reuse, Repair and End-of-life of vehicles and equipment employed during the operation or remaining humanitarian items;
5) Use of appropriate means of transport to reduce the consumption of fossil energy;
6) Information sharing with other organisations working in the region/country to promote efficient (re-)use of resources post-implementation;

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7) Use of renewable energy sources whenever possible along with appliances with lower energy consumption.

Humanitarian development – peace nexus approach

1) Working with local populations to build the capacity of local communities and markets;
2) Limiting community vulnerability to crises;
3) Strengthening capacity to recover quickly after a human or natural disaster;
4) Supporting professionalisation of local market actors;
5) Working with local government authorities, for example to develop their capacity to manage humanitarian aid and SWM;
6) Improve transport routes and infrastructure, and to incorporate temporary humanitarian SCs into existing ones.

Column 4 Tools and technologies used in HAs to assure its proper implementation at each stage of supply chain

List tools and technologies used to operate at each stage of the SC, like:

1) Car;
2) Trucks;
3) Office equipment;
4) Water or fuel tanks;
5) ICT tools;
6) Power generator;
7) Other technical equipment, etc.

Column 5 – Waste generated at HA – select ones generated at particular stage of SC

Commodity type	Packaging
Grains, cereals	Virgin woven PP bags
Cornmeal, fortified flour	Hybrid paper bags and PP woven bags with PE
Fortified vegetable oil	Steel cans, plastic bottles, cardboard cartons
Specialised nutritious food products	Metallised flexible plastic sachets and pouches, plastic box liners, cardboard cartons

Table 1 Examples of non-food items by sector

Sector	Typical non-food items

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Shelter	Tents, shelter kits, tarpaulin, synthetic sleeping mats, blankets, clothes, mosquito nets, timber, cement.
Nutrition	Nutrition-specialized products, such as Ready-to-Use Therapeutic Food (RUTF) and Ready-to-Use Supplementary Foods (RUSF); for example, Plumpy'Nut, vitamin A supplements, iron-folic acid supplements, and micronutrient supplements. These can be on tinplate or laminated packaging structures.
Health	Medical supplies, wheelchairs, cold boxes.
WASH	Jerrycans/buckets (water containers), water purification tablets (Aquatabs, PUR), Water pumps, hygiene products (soap), menstrual hygiene products (single-use pads, reusable pads-ex. AFRIpads), water testing products, chemicals (such as chlorine), and equipment (for pump mechanics).
Food security	Stoves (fuel-efficient saving stoves), seeds, farming tools (hoes, axes, rakes, watering cans, buckets), storage (bags and sacks), fertilizers, pesticides, etc.
Office management	Paper, printed products, office equipment, electronic waste, etc.
Hazardous and special waste	Petroleum, oil, and lubricants. Electrical transformers with polychlorinated biphenyls (PCBs). Chemicals such as acid, chlorine, and pesticides. Asbestos-containing materials. Treated timber, etc.

Column 6 - Logistical and organisational solutions to manage SW:
Indicate solutions used to manage selected SW:

1) Waste collection (direct collections from waste “producers” and at the collection points);
2) Waste concentration and storage;
3) Waste segregation (primary segregation – households, companies, public entities, and secondary segregation – at waste collecting units or waste storage);
4) Waste valorisation;
5) Waste reverse logistic;
6) Procurement of waste by local businesses;
7) Exporting of waste to another countries;

Column 7 - Tools and technologies applied up to date for SWM:
List and briefly describe identified tools and technologies currently applied to manage the SW:

TOOLS

1) Waste containers;
2) Organised and managed storage places;
3) Collection equipment;

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4) Segregation equipment;
5) Local waste pickers;
6) Other tools.

TECHNOLOGIES

1) Composting – production of organic fertilizers;
2) Vermicomposting (worm composting);
3) Anaerobic digestion - fermentation;
4) Black soldier flees (BSF) – composting technology;
5) Pyrolysis (charcoal, oils and biogas production);
6) Green energy technologies, including biogas plants and biogas production from animal waste;
7) Mushrooms production;
8) Other technologies.

NOTE:

This template can be used as a Replication tool in terms of analysis of supply chains stages.
For more information, please contact PRO CIVIS Foundation: office@procivis.org.pl

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