4.1.2 Waste Composition

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S1&2

We will continue training module 4 with information about the material composition of solid waste in rural communities

S3

Following extensive studies, the material composition of solid waste in various countries has been determined. From the presented table, it can be noted that solid waste mainly contains biodegradable waste and packaging waste, of which plastic packaging predominates. Another observation is related to local differences, with different percentages resulting in each country.

S4

Another example of material composition of solid waste is presented for Poland. 14 fractions of waste were identified, the study highlighting the situation at the level of cities, smaller towns, and rural communities. Significant differences in the material composition of the urban environment compared to the rural environment can be observed in the case of the following fractions of waste: food and garden waste, paper and cardboard, plastic, waste from markets and squares and the fractions of waste with a smaller diameter of 10 mm.

The data presented are informative and should not be taken as such and applied in any local context. Local communities should collect their own data on the material composition of waste in order to make the best local decisions about waste management.

S5

The official data of the Romanian Environmental Protection Agency present information on the average national composition of solid waste, from which we can see that biodegradable waste has the largest share of total waste at 56.49%, followed by paper and cardboard waste 14.51% and plastics 13.3%.

S6

A study carried out by a team of researchers for rural communities in Romania compares the results of the material composition of waste in 2011, determined on 14 fractions, with those of 2018. Major differences are found for biodegradable waste with a decrease of 15%, paper waste and cardboard with an increase of 7%, respectively 6% for plastic. A decrease is also expected for metal waste,

cumulatively around 3%. The percentages related to the other fractions of waste will remain approximately the same.

S7

In addition to household solid waste, to the total amount of waste generated, in the rural environment there is also waste from agricultural activities, forestry and fishing. In turn, these wastes can be classified, according to the type of activity, in:

Waste from plant crops

Waste from animal husbandry

Waste from food processing (in food processing units)

Horticultural waste

Agro-industrial waste (wood processing, paper production from virgin raw materials)

Veterinary medical waste

Chemical waste (pesticides, herbicides, insecticides)

S8

In the case of waste from agricultural activities, forestry and fishing, the annual waste generation rate for Romania shows values between 50.94 kg/inhabitant /year and 63.79 kg/inhabitant /year between 2012 and respectively 2018. The values depend on the activities productivity, this being the reason why the data varies without noticing a specific trend.

S9

In the characterization of the situation regarding the solid waste generated in rural communities, the indicator the percentage of population with acces to sanitation services or waste collection schemes, is also used. According to the latest national data, the value for the rural areas reached 87.7% in 2019, with a significant increase of approximately 17% in the last 5 years.

S10

Up to this point, we have discussed aspects related to waste generation in rural communities, defined the main categories of solid waste and presented information on the material composition of this waste, with examples from various countries and regions, and in Romania. Thank you for your attention!