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THE EU COHESION POLICY AND HEALTHY NATIONAL DEVELOPMENT: MANAGEMENT AND PROMOTION IN UKRAINE

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The monograph focused on the specifics of the principles of the EU Cohesion Policy implementation. The authors conducted an analysis of the economic, ecological and social aspects of the integration of the EU experience into the state policy of Ukraine. The monograph summarizes approaches to the restoration of the country and healthy development. Particular attention is paid to the issues of health care system management, the trends and prospects of achieving the state of resilience of the medical and social provision system of the population in the context of the impact of COVID-19 on the national economy. The experience of using marketing and innovative technologies in the context of healthy national development is summarized.

The monograph is generally intended for government officials, entrepreneurs, researchers, graduate students, students of economic, medical, and other specialties.

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euros, in 2016 - the amount exceeded 5 million euros, and in 2020 already 33 million euros. In 2020, Ukraine ranked 20th in the world in terms of organic food production. Products worth 137 million euros were produced, of which products worth 104 million euros were exported.

Thus, the conducted analysis makes it possible to state the following. Firstly, the market of organic products in Ukraine developed rapidly during 2004-2020. Secondly, the fact that even during the crisis years (2010) the organic market continued to grow is also important. Thirdly, the further development of the market of organic products is possible only if the income level of the population increases and the state supports producers.

2.6. Waste recycling system: European experience and its implementation in Ukraine[1]

Recycling is an effective method in the fight against waste and its secondary processing, which is beneficial from the point of economic and ecological components view. Statistical data on the waste processing high level in leading countries confirms the already stable relevance and popularity of this direction for a long time. According to available statistical data, more than 40% of waste is recycled in most European countries. Whereas in Ukraine – about 7%. The article analyzes the main types of sorted waste that can be used as raw materials for secondary processing, and based on the research data of Yale University, the main European countries that are currently leaders in secondary processing are identified. The analysis schedule of the waste processing system in Europe is given. Analysis of European countries showed that Switzerland, which is the "greenest" country according to most data and indicators, can be considered a model. Based on these statements, several key components of the waste management system in Switzerland were analyzed, the participation and influence of state and regional authorities on the activities of communities for waste collection and disposal were analyzed, and examples of the control system for the implementation of these processes were also studied. The work highlights the most important components of

[1] This research was funded by the Ministry of Education and Science of Ukraine, “Post-War Recovery of the Ukrainian Energy Industry: Waste Management Optimisation Considering Public Health, Environmental, Investment and Tax Determinants” – grant 0123U100112

the recycling successful implementation in the country and developed recommendations for transferring experience to the current situation in Ukraine in order to solve problems with raw materials and increase responsibility for waste. These recommendations are focused not only on aspects of improving the overall waste management system but also on the principles of customer-oriented marketing, where waste is a raw material for businesses engaged in entrepreneurial activities in the field of secondary processing. Based on the experience of the studied countries, it is also proposed to implement in Ukraine the effective components of the waste management system proven by practice, such as the development of a convenient navigation system for citizens, which will help to easily learn how to sort, what conditions and rules, where to find a collection point for certain waste. (based on the example of the existing waste management system in Switzerland). The data obtained in the work can be useful both for scientists and for those who work in fields related to recycling, waste management or waste management, community development, or enterprises that benefit them.

In this work, we want to raise the topic of waste processing, which is an actual solution to many problems with environmental pollution and an opportunity for more efficient use of resources. In other words, it is a resource that can be used to make the world much better and more perfect, because the rational and responsible use of natural and human resources is important both for the environment and for humanity. This topic has been heard for many years, but it is already being implemented in many countries. European countries are no exception, because according to statistical data, on average, European countries recycle about 46% of waste. Ukraine is only looking for and developing the way to such indicators. Accordingly, it is useful to understand what is the secret of success of leading countries and how to adopt successful experience to Ukraine. According to the available data, there are facilities, i.e. enterprises, for the processing of the main types of waste in Ukraine. However, they import raw materials from European countries (Poland and others), where the garbage has already been properly sorted. High-quality management of raw materials for secondary processing is something that is lacking in Ukraine, because it is an important element that has a double benefit: firstly, qualitatively sorted waste is processed and does not harm the environment in landfills, and secondly, it becomes raw materials for recycling enterprises in Ukraine that are ready to buy sorted waste. Accordingly,

provided the process is properly organized, recycling is a profitable method for ecologically solving waste problems.

The work is aimed at the systematization of knowledge about recycling and its status in Europe. The task of the work is to understand the key aspects of the successful experience of developed countries and the possibility of transferring the experience and its implementation in Ukraine.

In the process of work, analytical and logical methods were used. Found statistical data on recycling in European countries from various universities and organizations. The countries with the best data were selected, and the actual data regarding the waste management situation in the country was reviewed. A country was selected that can be used as an example of successful implementation, and its experience was analyzed. Data collection and analysis of the situation with secondary processing in Ukraine was carried out. Recommendations for the development and improvement of secondary processing in Ukraine have been developed in relation to the analyzed data.

What is recycling? To begin with, let's understand the definition of recycling (secondary processing), which materials are subject to it, and what can be obtained from them as a result. Here's what sources say:

Recycling or рециклинг ("recycling") literally translated from English is "repeated cycle". Most often, recycling is confused with upcycling, in which objects are only slightly modified and receive a new functionality. Recycling refers to the complete processing of raw materials in order to create new items.

This requires special equipment and special technologies. But, everyone can take part in the recycling process, be an active supplier of raw materials and start sorting it at home right now (Tsala-Mbala et al., 2022).

What is recyclable? Recyclable materials are listed in Table 2.15 below.

What will we get as a result of processing? Next, we consider it appropriate to consider in more detail: why it is important to recycle and what can be obtained as a result of processing each type of raw material.

Wastepaper. Why is it important to recycle paper? Using recycled paper helps reduce deforestation. For example, 100 kg of waste paper saves one tree. In addition, 20,000 liters are needed for processing. water and 1000 kW of electricity less than for the production of new paper, which, by the way, can survive about four to five recycling cycles.

Table 2.15 – Materials subject to processing

Type of raw material	Subspecies
Wastepaper	Paper; Cardboard; Newspapers
Glass	Sklotara; glass breaker
Scrap metal	Black; Non-ferrous; Precious
Chemicals	Acids; Meadows; Organic
Oil products	Olives; Bitumen; Asphalt
Electronics	Ware; Payments; Accumulators; Mercury lamps; Wire
Plastics	PET; PVC; PVD; ABS; PS; PND
Textile	Textile
Rubber	Tires; Rubber
Biological	Food waste; Fats; Sanitation
Wood	Knots; Shavings; Leaf
Construction	Brick; Concrete
Sewage	Industrial; Household; Special
Combined material	TetraPak

What is made from recycled paper:

• New office paper, which does not differ in appearance from paper made from primary raw materials

• Ekovatu

• Trays for eggs

• Excellent quality toilet paper

• Napkins

• Cotton pads

• Disposable pots for seedlings

• Disposable dishes

• Packaging cardboard

By the way, cardboard is recognized as the most popular packaging material that can be recycled multiple times (Cook et. al., 2021).

Glass. Why is it important to recycle glass? When processing glass, a lot of natural resources are saved. Huge areas of land that could turn into landfills are also preserved. In addition to handing over for recycling, it is also possible to simply hand over glass containers. The difference is that cans and bottles are simply washed, disinfected and reused. During processing, glass is crushed, and then a glass mass is created from which new products are made. The first option is more ecological and requires less energy consumption.

What is made of recycled glass? In addition to new bottles and cans, water filters, beads and various construction materials are made from glass (Islam et al., 2017).:

• Highly porous foam glass
• Silicate glue
• Types of concrete
• Ceramic sanitary ware
• Tile
• Mastic and paint materials.

Scrap metal Why is it important to recycle metal? The use of recycled materials helps to significantly reduce electricity consumption, and the need to use natural resources also disappears. In addition, when processing aluminum, the emission of greenhouse gases is reduced by 95%, compared to the production of new aluminum, which is subject to repeated processing, in which its physical and mechanical properties are not lost.

What is made from recycled meta l(Srinivas Sasikanth, 2022):

• New banks
• Materials used in automotive, aircraft and aerospace industries
• Fastening for furniture
• Building materials
• Aluminum composite panels for cladding buildings.

Plastics. Why is it important to recycle plastic? Since the beginning of the 1950s, about 8.3 billion tons of plastic have been produced in the world. About 60% of them became garbage and went to landfills or simply ended up in the environment. All this causes irreparable damage to our planet and all its inhabitants. The list of the most common plastic waste includes plastic bottles and their caps, food packaging film, polyethylene bags, as well as straws and stirrers. All these items can be discarded today, replacing them with reusable alternatives. When handing in plastic, it should be noted that not all types of plastic are recyclable. For example, with marking 3, 7 and some composite materials (which consist of several components and have the sign "C/") cannot be recycled.

What is made from recycled plastic:

• The latest eco trend is the production of clothes from recycled plastic. The North Face, GANT and Nike actively use this material in their collections.

• Sleepers made of composite material of special strength, which includes recycled plastic

• "Lying" policemen

• Building materials: roof tiles and paving slabs
• Office hole punches
• Sintepon
• Ropes
• Carpet
• Components for the automotive industry
• Sports equipment
• Trash cans
• Packages and packaging materials
• Plastic furniture
• Textiles.

Textile. Why is it important to recycle textiles? Once in a landfill, textiles will take hundreds of years to decompose. At the same time, methane and CO2 will be released into the atmosphere. Recycling clothes can reduce the damage caused to the environment. This is comparable to removing 1.3 million cars from the road (US Environmental Protection Agency (EPA)). Approximately 20% of all pollution in the World Ocean is caused by textiles. In Hong Kong alone, 253 tons of textiles go to landfill every year (Global Fashion Agenda).

What is made from recycled textiles:

• Building materials: wool and wadding for insulation and insulation, wallpaper glue, additives to building mixtures
• External material for production of upholstered furniture
• Home shoes (Walter Leal Filho, et. all., 2019).

Rubber. Why is tire recycling important? To increase the wear resistance and elasticity of tires, manufacturers often add special components to their composition. Due to this, the decomposition of tires will increase by a hundred years, and during all this time, harmful substances are released into the atmosphere. And in case of ignition of tires, the concentration of such substances increases many times! Tires are hazardous waste and must be disposed of properly. During recycling, tires are turned into crumb rubber, which is then used to make many valuable items.

What is made of recycled tires (Akbas & Yuhana, 2021):

• "Soft coverings" for sports and children's playgrounds
• Additives for construction solutions, new tires, mats, soles
• Asphalt bitumen filler.

Combined material. A distinctive feature of Tetra pak packaging is that it is multi-component. It has 3 components: cellulose, polyethylene and

aluminum. That is why 3 times more resources are needed to produce a Tetrapak than for monopacks. During processing, cellulose fiber is first extracted. After that, the Tetrapak packaging leaves polyester and aluminum waste, which is called polyaluminum. This mixture is purified and granulated. After that, it can be used to make new things.

What do and recycled Tetra pak:

• Same products as recycled paper

• Cases for ballpoint pens, which can also be recycled (approximately 1 liter Tetra Pak makes 1 pen).

Examples of successful implementation of secondary processing. Let's consider the statistical data on secondary processing for the last 5 years, using the example of research on the environmental efficiency index of Yale University (Fig. 2.8).

COUNTRY	RANK	EPI SCORE	10-YEAR CHANGE
FILTER BY REGION: ALL REGIONS			
Luxembourg	1	79.10	NA
Austria	2	77.40	0.10
Switzerland	3	76.40	0.10
Czech Republic	4	74.90	0.40
Iceland	5	73.90	2.80
South Korea	6	72.00	3.00
Singapore	7	71.70	2.70
Sweden	8	70.80	3.20
Norway	9	70.70	3.40

Figure 2.8 – Research on the Yale University Environmental Performance Index 2022 (Wolf et al., 2022)

Most of the European countries are among the leaders in the rating. It is not surprising, because if we look at the statistics of waste processing in Europe (Fig. 2.9), we can see that in 2020 recycled materials reached the mark of 46% of all available waste, which is a significant indicator.

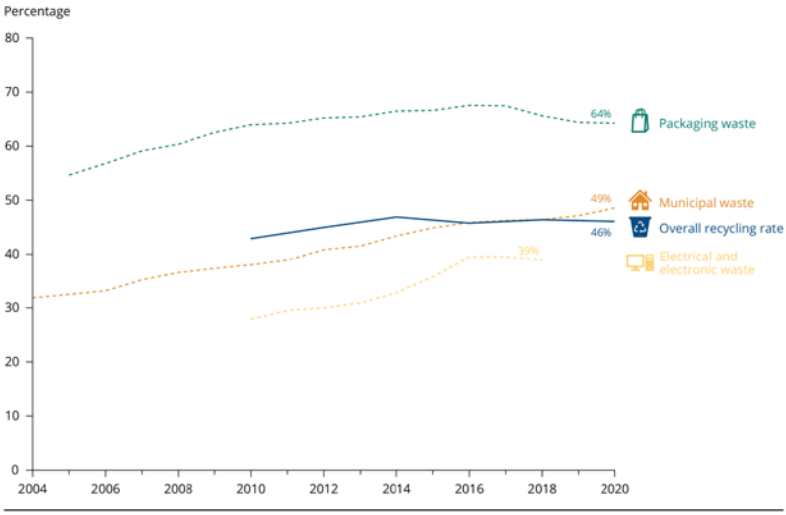

Figure 2.9 – Figure 1. Recycling rates in Europe by waste stream (EU-27) (The European Environment Agency, 2022)

According to Wolf et al. (2022) and data of Environmental Performance Index, Switzerland is recognized as the greenest country in the world. This suggests that this country can really be considered as a good example and role model in the implementation of recycling. Also, let's look at information about secondary processing of resources in Switzerland.

Recycling is a way of life in Switzerland: almost 53% of all waste generated is recycled, one of the highest rates in Europe. The Umweltschutzgesetz (Environmental Protection Act – USG) of 1983 makes residents responsible for the waste they produce through taxes and strict policies. The Swiss recycling system is complex but efficient, and each type of material has its own disposal method.

Recycled materials are usually either repurposed or reused. The two most recycled items in Switzerland are glass and aluminum, both of which are relatively easy to process. Beverage companies often reuse glass bottles after they have been thoroughly cleaned. Otherwise, in the process of processing, glass is melted and then transformed into new glass or added to building materials. For aluminum packaging, metalworkers can melt and recycle it any number of times without compromising its quality.

Things like clothing and electronics require more specialized processing and often end up outside of Switzerland. According to the Bundesamt für Umwelt (Federal Office for the Environment – BAFU/OFEV/UFAM), most recycled clothing can still be worn, so organizations sell or donate it abroad. They usually burn unsaleable clothes and shoes. To recycle electronics, recycling specialists first take it apart and sort the parts. They then usually export the scrap metal outside of Switzerland to complete the process.

Recycling in Switzerland is not a problem, because there are all the necessary resources that, according to the region, provide specific information to understand how to sort and where the collection points are. Recycling-Map (Cordary, M. (2023). provides a useful and easy-to-use map of recycling collection points throughout Switzerland. Public facilities are usually free. If your waste is properly sorted and stored, the municipal recycling service can collect it from your home.

Paper and cardboard recycling in Switzerland. 90% of paper purchased each year comes from recycled paper. This highlights the value of recycled paper as a Swiss resource. As paper and cardboard are among the most common recycled materials in Switzerland, it is easy to find a public collection point or home collection point.

Recycling of plastic and PET bottles in Switzerland. Like many other countries, Switzerland distinguishes between regular plastic bottles and polyethylene terephthalate (PET) bottles when sorting recyclables. Some recycling centers accept PET bottles, and they can also be returned in special PET containers at grocery stores. Non-PET plastic can be left at the collection point where these products were purchased.

Glass processing in Switzerland. Switzerland reuses or recycles an impressive 94% of its total glass waste. Some communities may have a separate container for reusable glass and another for recycling.

Metal processing in Switzerland. Another very often recycled material in Switzerland is metal in the form of aluminum packaging and tin cans. Suitable containers for recycling metal products are quite common in public places.

Processing of clothing and clothing materials in Switzerland. The increase in the volume of purchase and disposal has turned clothing into a serious environmental problem. Since there is not yet a way to recycle clothing and textiles, reuse is the best way to go. In Switzerland, there are donation containers that accept men's, women's and children's clothes and shoes. These organizations can also carry out specialized roadside pickup if

necessary. They also accept bedding and stuffed animals, but will burn dirty or damaged clothing.

Recycling of other household items in Switzerland. Appliances and Electronics: This includes everything from mobile phones to refrigerators and computer components that need to be sent to a specific recycling location. After the end of the service life, you can return electronics and appliances to the store where they were purchased (Recycling Map, 2023).

Batteries. There is a very specific process for recycling discharged batteries. As with electronics, batteries are returned to stores when they stop working.

Furniture: Furniture in decent condition can be donated to charities. If the furniture is no longer suitable for use, it can be handed over to the point of disposal of "oversized items".

Light bulbs: Fluorescent light bulbs, energy-saving light bulbs and LEDs can be recycled, which can be returned to the store or collection point. Currently, ordinary light bulbs are not recyclable, so they are thrown out with household waste.

Food waste composting in Switzerland. Since 2000, it has been illegal to send organic waste to landfills in Switzerland, which means that residents must dispose of it in an ecological way. According to the BAFU (OFEV/UFAM), food waste is a serious problem and Switzerland has committed to halve the amount by 2030. Household food waste includes fruits, vegetables, coffee grounds and filters, tea bags, eggshells, etc. This waste in Switzerland can be composted at home in the backyard or in the garden, or food waste can be taken to any green waste collection point.

Composting garden waste in Switzerland. Switzerland composts garden waste widely, and it is quite easy to find a collection point to take it away.

Garbage removal in Switzerland. For household waste that cannot be recycled or composted, you can use the services of your local municipality for garbage collection. In this case, the municipality collects garbage from underground or roadside containers.

Penalties for illegal dumping or recycling of waste in Switzerland. Switzerland takes waste disposal and recycling regulations very seriously, with heavy fines for illegal dumping or recycling. If you dispose of improperly packaged or unpaid trash, authorities can open the bag and potentially trace it back to your family. The fine for illegal dumping is up to 10,000 Swiss francs (Vox Ukraine idea, 2023).

State of secondary processing in Ukraine. In-depth statistical information is not available, but according to data from several sources, we can learn that as of 2021, about 7% of all waste in Ukraine was recycled and 1.7% was incinerated. The data is quite sad when compared with any European country where more than 40% of waste is recycled (DLF attorneys-at-law, 2021; Semko, 2020). If you look deeper, namely into legislative processes and the organization of processing enterprises, to understand the essence of the problem.

Almost 450 million tons of waste are generated in Ukraine every year, of which no more than 3% is recycled. The rest are buried in landfills, the area of which – 167 thousand hectares – exceeds the territory of the country's natural reserve fund. According to approximate data, about 30 billion tons of household waste are concentrated in landfills – "Klondike" for recyclers. However, instead of recycling waste and making a profit from it, as happens in civilized countries, where up to 60% of glass, paper, plastic and other waste is recycled, Ukraine's potential budget funds rot in landfills for years, simultaneously polluting the environment. Formally, secondary processing in Ukraine is regulated by the laws of Ukraine "On Environmental Protection", "On Ensuring Sanitary and Epidemic Welfare of the Population", "On Management of Radioactive Waste", "On Metal Scrap" and the Code of Ukraine on Subsoil (Wikimedia project participants, 2023).

The key word is formally, because according to the same principle, the construction of waste sorting and processing enterprises was planned by 2020, but as we can see from the statistics, no serious changes have taken place.

According to the analyzed information from existing enterprises (Economic truth, 2023), we understand that the capacities for processing the main raw materials, namely glass, paper and plastic are available, but the problem in everything is the lack of high-quality raw materials for processing. That is, we have the problem of managing this raw material, starting from its quality sorting and ending with its final destination.

The solution is behind legislation and policy that will make it unprofitable to hand in unsorted waste and take it to landfills without recycling and force the situation to improve. The introduction of responsibility for the waste of enterprises, fines for failure to sort, as well as an increase in tariffs for the removal of garbage to landfills are key aspects that will lead to real changes. Namely responsible sorting, development of processing enterprises and the industry as a whole.

Recommendations for the development of recycling in Ukraine. Above, an analysis of the existing situation in Ukraine, as well as the existing and most importantly successfully implemented system of secondary processing of raw materials in Switzerland was carried out. Further, we consider it expedient to develop recommendations based on the successful experience of Switzerland, and at the same time adapted to the current situation in Ukraine. These recommendations will be useful for the implementation and development of recycling in Ukraine.

Table 2.16 – Recommendations for the development of recycling in Ukraine (No Waste Recycling Station, 2023; Swiss Recycling, 2023; Intergovernmental Panel on Climate Change (2023).

Direction	Recommendations
To improve the situation with raw materials and waste management: (Since the enterprises for the processing of the main secondary raw materials are already available, but there is a problem with the raw materials)	• Implement the responsibility of citizens and enterprises for waste at the legislative level. • Raise tariffs for the removal and disposal of garbage at landfills, which will make this method unprofitable. • Introduce fines in case of non-fulfillment of responsibility, as well as for the use of unprofitable outdated methods (we are talking about taking garbage to landfills, throwing unsorted garbage, incineration, etc.).
To implement state support for recycling: (After all, existing enterprises engaged in educational and processing activities are private and charge a fee for their services, while for encouragement, these services should be convenient and free, or at the level of minimum tariffs.)	• Development of the ecosystem for waste sorting and delivery in all settlements of the country. Collection points and transportation systems, as well as new businesses and recycling centers. • Agree on cooperation with foreign enterprises, and accordingly organize the export of raw materials and waste, the processing of which is impossible in Ukraine. • Development of a convenient navigation system for citizens, which will help to easily learn how to sort, what conditions and rules, where to find a collection point for certain waste. Based on the example of the existing system in Switzerland

Continued table 2.16

To promote and advertise a socially responsible attitude to recycling, create a fashion for sorting and recycling:	• Given the available digital capabilities, it is recommended to create a mobile application or a separate section in the DIA application to help with recycling issues. And also to add a certain rating, which will show the leaders of sorting both among individuals and enterprises, or by communities, which will additionally stimulate citizens to take responsibility. • It is also worth agreeing on cooperation with bloggers and media persons who are leaders in various fields, so that they show an example of a responsible attitude to recycling in their social networks and life, as well as shoot social advertising for TV with their participation. • Develop external advertising of a social nature, which will stimulate conscious and responsible sorting of waste. According to the already existing example from the Patrol Police [15]. • Taking into account the successful experience with monetary assistance from the Support for vaccinations, develop a system of incentives: Every week or every month, hold raffles chosen by bloggers for certain desired things for posting their garbage sorting actions. Everyone puts it out there and creates a fashion for the sort, and everyone who participates can win a prize. And also weekly or monthly to give a certain cash or sponsorship reward to the leaders of the ratings offered above in the mobile application «Dija».
Examples of social advertising: (by the type of educational information to improve citizens' awareness.)	The following information may be used for billboard and television advertising: • Know your local system: go to the app/site, select the raw materials you want to hand over and see the collection points in your area. • Get into the habit of cleaning and separating: Get started and you'll soon get into the habit of recycling, which will make the whole process easier. • Less is more: Participating in recycling also means crushing cans, squeezing bottles and breaking up cardboard boxes. The less space the processing takes up, the cheaper it is to transport the system. • If you are not sure - ask: there are fines for violating waste disposal rules. Better to be safe than sorry.

Recycling is an effective method in the fight against waste and its secondary processing, which is beneficial from the point of view of economic and ecological components. According to available statistical data, more than 40% of waste is recycled in most European countries. Whereas in Ukraine – about 7%. The article analyzes the main types of sorted waste that can be used as raw materials for secondary processing, and based on the research data of the Yale University, the main European countries that are currently leaders in secondary processing are identified. The analysis schedule of the waste processing system in Europe is given. Analysis of European countries showed that Switzerland, which is the "greenest" country according to most data and indicators, can be considered a model. Based on these statements, several key components of the waste management system in Switzerland were analyzed, the participation and influence of state and regional authorities on the activities of communities for waste collection and disposal were analyzed, and examples of the control system for the implementation of these processes were also studied. The work highlights the most important components of the successful implementation of recycling in the country and developed recommendations for transferring experience to the current situation in Ukraine in order to solve problems with raw materials and increase responsibility for waste. These recommendations are focused not only on aspects of improving the overall waste management system, but also on the principles of customer-oriented marketing, where waste is a raw material for businesses engaged in entrepreneurial activities in the field of secondary processing. It is also proposed, based on the experience of the studied countries, to implement in Ukraine effective components of the waste management system proven by practice. The data obtained in the work can be useful both for scientists and for those who work in fields related to recycling, waste management or waste management, community development or enterprises that benefit them.

2.7. The innovation and investment resource for sustainable development

Social expenditures should be seen as state social investments in human development. For many low-income countries official development assistance (ODA) remains an important source of social finance. Since the