

**МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
СУМСЬКИЙ ДЕРЖАВНИЙ УНІВЕРСИТЕТ
ФАКУЛЬТЕТ ІНОЗЕМНОЇ ФІЛОЛОГІЇ
ТА СОЦІАЛЬНИХ КОМУНІКАЦІЙ**



СОЦІАЛЬНО-ГУМАНІТАРНІ АСПЕКТИ РОЗВИТКУ СУЧАСНОГО СУСПІЛЬСТВА

**МАТЕРІАЛИ V ВСЕУКРАЇНСЬКОЇ НАУКОВОЇ КОНФЕРЕНЦІЇ СТУДЕНТІВ,
АСПРАНТІВ, ВИКЛАДАЧІВ ТА СПІВРОБІТНИКІВ**

(Суми, 20-21 квітня 2017 року)

**Суми
2017**

ORGANIZATIONAL AND ECONOMICAL MECHANISM OF CONSUMER PACKAGING RECYCLING

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Every month the nature of Ukraine accumulates around 5 million tons of wastes, the significant part of which is consumer packaging. Taking into consideration this fact, it should be said that the ecological situation of our country is disappointing. Moreover, the environment of Ukraine is at risk because of such factors as absence of complex approach to the system of collecting, sorting, recycling of packaging materials and overloading of the Ukrainian market with packed products and packaging resources from abroad. Additionally, our country produces competitive goods in the packaging, which is not worse than the foreign one that stimulates the rapid development of packaging sector of economy. As a consequence, it also has a great impact on the environmental situation of the country.

So, the thesis considers the issue of consumer packaging recycling. In the USA and many European countries special waste collection agencies and local authorities take care of the recycling system functioning. These states established the *Container Deposit Legislation*, which provides economic mechanism of collection consumer packaging wastes. It presupposes accumulating a certain amount of monetary deposit with purchase of alcoholic and nonalcoholic drinks, water, juices, milk or other containers in the place of these goods sale location. The monetary deposit is compensated fully or partially when the bottle is returned to the authorized centre for repurchase.

Nowadays in terms of expediency of recycling among existing types of returnable consumer packaging, special attention is given to polyethyleneterephthalate (PET) bottles. PET is tough, lightweight and durable material, it is a complex thermoplastic polyester of terephthalic acid and ethylene glycol. According to economic calculations, the cost of recyclable material is 3 – 5 times cheaper than the cost of fresh raw material. Taking into account this fact, innovators in the field of production technologies started to use not only pure fresh raw materials, but also mix them with recyclable materials in different proportions. Secondary PET-materials are widely used in production of geotextiles, synthetic fibers and carpet fibers. With their help sheet, film and binding bands are manufactured. One more niche, discovered for using PET- material, is packaging for chemical household products, special cleaning detergents, etc.

The other problem under consideration is the recycling of aluminum cans. Aluminum cans are exposed to utilization processes much easier than cans made of tin. Today, in the USA only 10 % of population prefers to purchase drinks in tin cans. The most widely used metal containers are aluminum cans, as they can be given back for a certain fee after using of contained product. 80 % of aluminum containers out of 95 % cans, which are used for packing drinks, are recycled. The secondary aluminum is almost of the same quality as the primary one, that is, why it is applied for packing of food products as well. In European countries the recycling chain starts with functioning of the private firms, which process and sell the secondary containers. Among population the special measures and actions for stimulation of a big amount of cans collection are propagandized. Afterwards the containers are sorted, pressed and sent into special centres for recycling.

The issue of carton and paper consumer packaging recycling is also of great interest. Technological cycle of paper and carton recycling has its own peculiarities. But the major specific feature is that this material can not be recycled many times, because paper and carton are not so durable materials like glass or plastic. The fundamental component of this material is cellulose fibers, which are destroyed easily in the process of treatment or using.

The next questions, analyzed in the paper are recycling of wooden and glass consumer packaging. Wooden goods are the source of wastes, which are used for wood coal manufacturing. The technology of wood recycling is called pyrolysis consisting in decomposition of wood substance in special vacuum conditions. This material is purchased by the manufacturers of various electro-carbon goods, special reductants in the field of metallurgy, fuel for stoves. Secondary wood can be even used for production of activated carbon.

Whereas the major direction of appliance of glass wastes is the production of containers like glass cans and bottles. The secondary glass material can be of different composition and colour. Recycling of glass is economically profitable all over the world, as the requirements to perdurability of chemical composition of glass mass are not very strict.

It is important to realize that recycling of consumer packaging wastes is almost a gold mine. It is not only a profitable business, but also creates a significant contribution to the protection of the environment and the rational use of natural resources.