

Animal waste, everywhere around us

Where do slaughter and other animal waste end up in Nikšić? "For this waste there is not an adequate disposal site but the waste is disposed at the landfill Budoš, in a specially dug up pit where it is hilled and covered by layers of lime and soil," they says in the **Public Communal Enterprise Nikšić**. In Nikšić there is a large system of meat processing (meat industry "Goranović", "Monteživ" and others), so this problem requires a quick solution. Animal by-products are generated in slaughterhouses, plants for processing meat, fish, eggs and milk, in cold-storage rooms, warehouses, incubators for chicken, meat shops, fish markets, restaurants, facilities for animal breeding, zoos and other places where animals are bred and where food of animal origin is produced.

Animal waste is a potential threat to human and animal health because through it infectious and parasitic diseases can be transmitted. "In the city and its surrounding area there are a number of slaughterhouses and butcher shops that often dispose of animal waste in the nearby rivers, cracks, sinkholes and caves. One of the consequences is the spreading of odor that is unpleasant for the inhabitants especially during the summer period. In addition, waste is often scattered by animals, and this further increases the risk of infection", says **Milan Korać**, a member of the Ecological Movement "OZON".

In Nikšić there is no service for the removal of stray dogs and cats, there is not a shelter for them, but they are often poisoned (!), and the carcasses of dead animals for several days and even weeks decay in the streets. Citizens appeal to the competent inspections. **Janko Gardašević** (47), a resident of Kličevo says, "All that is needed is for the inspection to do their work, and not to give us instructions to remember the license plates and take pictures of people who we suspect are polluting the environment and throwing dead animals in the river bed of Gračanica, and then to report them. We even did that, but we have heard that these applications are not processed, and that the offenders are not punished, and therefore the problem is not being solved. "

From the owner of the butchery "Goranović", **Đorđije Goranović**, we received information that at Kapino Polje a large slaughter plant with the most contemporary way of destroying waste in it by using a special incinerator is being constructed, which will serve as a good example for other smaller plants of this kind.

"According to EU regulations, the most convenient way for rehabilitation of animal by-products which are not intended for human consumption is their collection and usage for animal food production, the chemical industry, biogas or fuel, depending on the type and structure of materials and their categorization, by technical processing and applying modern equipment and technology." said **Jelena Mašulović**, Senior Advisor in the Department of Environmental Protection in Nikšić.

The efficient management of waste in the slaughter and processing industry aims to protect human life and health, but also the animals and the environment. After that, through the development of new business opportunities, the so-called waste in this sector, through the development of new business opportunities, such as the production of fertilizers, animal food, should also bring profit. It also represents an opportunity for forming conditions and development of new renewable energy sources.

"The European Union has a clearly defined division of animal waste into three categories. All these categories of waste require special treatment. In Nikšić there is no data on the quantities of such waste, nor is it specially treated. Destruction of remains of animal origin were, generally, carried out in an inappropriate manner by burying or disposing of it in open dumps" says **Aleksandar Perović**, Director EM OZON, and continues: "There are no indicators on the quantities of produced waste of animal origin, so it is necessary to develop a study that would define the sources of waste, quantities and recommend a way to manage this type of waste and propose a micro-location for its disposal and destruction."



Biljana Kecojević, PR of Arhus Centre in Nikšić said: "We believe that a unified and comprehensive management system for slaughter and other waste cannot be implemented if it is only considered from the techno-economic aspect and if we neglect the dimension and role of environmental education. Education and environmental education is an unavoidable segment of any integrated waste management system. There is an interrelated relationship between the eco-education and eco-culture with cause-effect relations. Environmental education enables acquiring environmental knowledge and skills with the aim to increase the awareness of every individual to participate effectively in the implementation of the waste management system. Environmental education develops in people new knowledge and generates new values that will direct them to change their behavior. We best perceived this while working with preschool children in Nikšić, and in all cities of Montenegro. Therefore, to achieve the set development goals and tasks, significant changes in the social, economic, educational and cultural sense are required. There is a need for environmental education of people from an early age.

Another mechanism for raising public awareness is appropriate law enforcement, that is, its penalty provisions for offenses committed (illegal waste dumping, etc.). In cases where education does not achieve the desired results, public awareness will need to be influenced by applying the law. In this sense the connection between the competent authorities for law-enforcement and the entities conducting the campaign is needed. The campaign also aims to encourage the development of public awareness of consumers to support the creation of a sustainable waste management system by buying products made from recyclable materials and by separating waste at its source and by its proper disposal ", ends Kecojević.

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