

# Application of sustainable development principles for higher quality of life

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**Abstract-** Municipal waste is a serious environmental problem in both developed and developing countries. In previous years, the most developed countries began to improve the management of municipal solid waste. The increased volume of waste generated as a result of rapid urbanization in developing countries is usually not properly accompanied by appropriate management mechanisms. Municipal waste management systems in developing countries have to deal with many difficulties, including modest technical experience and weak financial resources, which often cover only the costs of removal, leaving no funds to invest in waste processing. Municipal waste management in developing countries is mostly inadequate, which has a negative impact on human and animal health, but also generates problems and losses in the economic, biological and environmental spheres.

**Index Terms-** environmental security, sustainable development, recycling technologies, landfills

## I. INTRODUCTION

Life and human activity have always been associated with waste generation, and managing them can be a great challenge. Waste is anything that is discarded by an individual, a household, or some organization. As a result, waste is a complex combination of different substances, which are almost as a rule dangerous to health. Waste can be solid materials, liquids, gases, radioactive, infectious substances which, due to their chemical activity or toxicity, or some other characteristics, can cause danger to health or the environment, either alone or by coming into contact with other waste.

Municipal waste consists of everyday things, such as packaging, plants, furniture, clothing, bottles, food scraps, waste paper, appliances, paints, etc. On average, about 80% of it consists of organic materials, which are defined as the biodegradable part of household waste, garbage from stores, garbage from the yard and animal and human waste. Municipal waste management has several functional elements, including waste generation, waste separation and selection, storage and further processing, collection, transport and final disposal at the landfill. Municipal waste management refers to all activities that include control, collection, transport, treatment and disposal of waste in accordance with the best health and economic principles, engineering, conservation, aesthetics and other environmental issues.

## II. SUSTAINABLE DEVELOPMENT IN WASTE TREATMENT

Capitalistic exploitation through the processes of globalization has given birth to the most destructive mode, which is why the planet, ecologically speaking, is moving faster and faster in the direction of the red line. The result is increased resource consumption. Even today, it cannot be said with certainty whether the planet will survive. Unfortunately, some negative processes on the ecosystem, globally, have occurred. In addition to the greenhouse effect, there are many other reasons that are a prerequisite for the continued collapse of ecosystems. Therefore, it is necessary to be aware of the risk for the mentioned process if there is a delay in having valid data regarding the three described parameters, which leads to non-harmonization of the same, which lacks the benefit for the local context. However, that gives hope, because there is a huge number of those who are trying, methodologically and strategically, even in terms of monitoring, and that is an incentive for some new generations, which will pave the way for the implementation of the mentioned processes.

With the help of ecological parameters, as part of sustainable development, the tendency of efficiency loss in terms of land yield was recognized, but this tendency was further intensified due to some of the producers of pesticides to increase profits, including contamination of land with waste. is a warning to environmental associations and environmental organizations. Also a big problem is water contamination, globally, which is a direct consequence of the problem of inadequate waste disposal. As a result, significant problems have been noted in the functioning of the food industry, as it is high risk to produce food using poor quality water, which exposes the entire population to both diseases and direct danger.

As part of sustainable development, the concept includes human security, and environmental security is at the center of it. From an international level, the key recommendation, globally, is poverty reduction, in order to achieve human security, human development, human rights, a better environment, because it reduces in the long run poor settlements that do not even have toilets, and nearby are large landfills that contaminate water and water resources over time, with unforeseeable consequences for human health. The point of investing a lot of effort is to achieve sustainable security, and if that succeeds, then the concept of quality of life.

As one of the reasons, can be considered the lack of creating an economic, completely new model, which is the task of rich countries. They are the ones who brought the current situation,

planetarily, using capitalist models and over-exploitation. From the ecological point of view, man is still a key problem, and at the same time only in his hands can there be a solution to the problem. This situation is related to the problem of waste and is essentially related to the modern way of life in most consumer societies. When analyzing this segment, it is easy to conclude that the largest part of the human consumption chain is the range of products that are not particularly needed at all, but are the main cause of waste production and unsolvable problems, which are accumulating globally. There are a number of problems with the fact that in developing countries, studies on waste generation are not conducted, and they specify the origin of municipal waste: industry, households, commercial sector, institutions, service providers and public areas.

Several activities is considered to be quality waste collection: collection, transportation, recycling, new use, and treatment and disposal. Apart from the fact that the mentioned metropolises are located in some of the most developed industrial countries, these countries convincingly produce a larger amount of waste in relation to underdeveloped countries, and even to their own masses. When these are multi-million settlements, then the production of waste is higher than their population, first because of the complicated packaging, and then because of the cost of their transport as a product, from distant destinations for their quality and freshness, for which they must stand out huge amounts of money, in order to maintain competitiveness in the market, after transportation to final destinations.

### III. RECYCLING TECHNOLOGIES OF MUNICIPAL WASTE

In some of the world's most developed countries, protection from negative consequences has come the furthest, when it comes to waste. So, those are the countries that are at the forefront with the most advanced technologies in terms of proper waste management, in the amount of eighty percent. There is an unavoidable thorough recycling and processing of the same, and in fifty estimates, its disposal is also controlled. Only six percent is set aside for uncontrolled landfilling, in some countries (such as the United States, Australia, Western European regions, Japan). Countries also differ in the amount of municipal waste on a daily and annual basis. Those that are more developed are a quarter of a kilogram per capita on a daily basis, while the average value in the underdeveloped ones is 0.5% (ie from 0.2 to 0.7%). Within the EU, waste growth is constant on an annual basis. While in Western European countries it is less than four hundred kilograms per capita, on an annual level (data for 1992). Such data is also for the USA (New York), four years later, per capita.

Basic, starting postulates for adequate waste management are very important. The first is related to sustainable development. It is a postulate that requires that natural and created values be used in a rational and reasonable, and even economical way. This is the only way to improve the quality of the environment. Because the emphasis is on personal responsibility for the quality of the environment among citizens, as well as their participation in making important decisions in such processes. It is also necessary to introduce new measures, along with the existing ones, but it is also necessary to point out the importance of the environment in all sectoral policies.

Proximity is important postulate, and it implies a solution that needs to be found closer to the place of its generation for

waste. This reduces the risk of negative consequences during transport and the environment itself. Economy of this solution is also crucial. Thus, local governments are encouraged to find solutions taking into account local specifics. Well, alone or with the help of the surrounding municipalities, they are working on these strategies for adequate waste management. The precautionary postulate seeks to prevent potential harm, and this implies scientific unreliability. The next postulate refers to environmental pollution, and covers all potential costs of damage. Then there is the postulate of the hierarchy in waste management. The emphasis is on preventive action in waste generation, ie in its reduction, which refers to toxic segments in the same. It also insists on the reuse of the same product, and for another purpose.

### IV. DESIGNING LANDFILLS

Designed landfills with appropriate leachate collection and gas extraction will reduce groundwater contamination problems. Therefore, the General Environment Agency (EGA) should consider building appropriate landfills, instead of the inadequate waste disposal sites currently in use. It is clear that efficient and more sustainable waste management strategies are needed to reduce the existing high dependence on waste sites. Rapid urbanization, and natural increase with industrialization, would contribute to increasing the amount of municipal solid waste on a huge scale. These factors would change both the composition and the structure of the waste itself.

In general, municipal solid waste is not considered to be adequate if large quantities are tried to be collected within urban areas, as there is still no efficient working system developed for collection, disposal, transportation, so there is still no comprehensive management for solid waste treatment. municipal waste. Awareness is rising on the planet that it is necessary to better manage human waste. Also, in addition to the increased need for sanitation and clean water, there is an increase in the number of wastewater treatment plants. However, it is necessary to have adequate solutions for that. Problems that contribute to the worsening of the situation, globally, are irregular schemes of households, but also industrialization, rapid industrialization, which have affected the increase of wastewater. Since wastewater is water that has already been used, it is necessary to treat it before releasing it into other water, in order to reduce the potential contamination of water sources. Namely, most of all industrial waters or in business, even in households, must be treated, before being released into the environment. The point is that nature as a whole can withstand just a minute of pressure from waste or pollution. But billions of gallons of sewage or wastewater, daily, would flood nature. Therefore, efforts are being made to control wastewater pollutants as they would be tolerable for nature, and all this is feasible thanks to the plants that serve for processing.

Appropriate security must be maintained to minimize harvester access at these appropriate landfills, by strengthening the General Environment Agency (EGA), tightening strict rules to prevent illegal dumping of solid waste on river banks, and in public places. Some of the recommendations, therefore, would be to primarily improve the sewerage network, which in cities is in most cases incomplete and needs finishing. At the same time, it is necessary to increase the treatment of wastewater in terms of quantity, while at the same time taking into account that their management and capacity are also at a high level, so to follow the

highest possible, predicted standards. Namely, all water should be treated with monitoring of quality assurance practices, before they are released into the sea. The return water can also be reused for some other activities, such as the agricultural industry and in activities related to the prevention of soil erosion, resulting in deforestation. Professional audit teams for research of underwater waters treated in plants, which are no longer in operation, should be formed in order to provide timely and detailed reports on the technical status of these plants, after which they would be addressed as very important documents to the appropriate addresses. The government can also take steps to take initiatives to promote water reuse and recycling, encouraging more academic research on water reuse.

Proactive cooperation between all parties involved in the government is necessary in order to adequately deal with wastewater treatment, but also to encourage good practices when it comes to management. Waste management is a global and very challenging environmental problem, which the whole world is facing. Increased community awareness is necessary for the needs of every city council, regarding the issue of waste management. More active responsibility of the private sector and full integration of the informal sector are recommended in this case and above all.

#### V. CONCLUSION

The threat to achieving the concept of sustainable development and in the long run quality of life is the excessive exploitation of water resources, which will disrupt existing ecosystems, which in addition to existing problems in poor countries, will cause even more complex problems, accumulate them. The result will be greater poverty. If ecological safety is established, any intervention that would leave far-reaching consequences on the ecosystem is stopped, potential damage on the ground is restored, but also the leveling of damage to natural resources is achieved.

There is a distinction between quality of life and sustainability as a concept, because the first concept implies the domain of the individual, ie the welfare of the individual at the moment, and the second the domain of social property, focusing

on equality in access to resources, healthy environment, social property in general, all citizens those communities.

Human security and changes in the environment belong to the ecological type of security (that is, security and freedom of individuals, interpersonal relations, health status). In this way, the systems take into account natural resources, sovereignty, population, in a planned way. In that case, the security concept is created by paying attention to local specifics, which gains the trust of the citizens and achieves a sense of security.

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