

“Rising awarness over the necessity of environment protection and biodiversity preservation: Constanta and Vidin in the mirror”

MIS-ETC 593



Constanta



Vidin

- 01 Grindul Lupilor Reservation 02 Constanta 03 Tuzla Cape 04 Vama Veche 05 Limanu Lake 06 Hagieni Lake & Forest
07 Oltina Lake 08 Dunareni 09 Dunarea 10 Topalu 11 Harsova 12 Vidin

- General and common problems of the environment of the two communities:
- I Agglomeration with waste of consumables or disposables in environmental areas which are generally protected areas and/or agreement zones.
 - II Agglomerations of food waste (due to excessive consumption).
 - III Excessive energy consumption that leads to depletion of natural resources needed to produce it.
 - IV Excessive water consumption combined with pollution of aquatic resources.
 - V The human, technological, economic & social activity stand under the sign of consumerism.

On the back of the poster there is illustrated a set of solutions to these problems!



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The proposal for a set of solutions to environmental problems identified in the two regions: Constanta and Vidin

"The world has enough for everyone's need, but not enough for everyone's greed." – Mahatma Gandhi

A healthy environment is necessary for human and animal life to survive. Drinkable water, breathable air, and edible food are some of the resources that are necessary for life to continue. Yet at the same time, people cannot maintain a desirable standard of living without the consumption of natural resources, which causes damage to the environment. In addition, using natural resources reduces their availability, which can lead to shortages of building and manufacturing materials, food, and water. Human activity that is harmful to the environment can cause public health crises, render areas uninhabitable, and otherwise reduce standards of living on a societal or global scale. When people protect the environment, they are protecting themselves and their future as well.

In the following lines we will present the general and common problems of the environment of the two communities, Constanta County & Vidin, and solutions related to these issues:

I. Agglomeration with waste of consumables or disposables in environmental areas which are generally protected areas and/or agreement zones.
Solution: Recycling, placement of garbage cans in protected areas and/or agreement zones

When people use things like aluminum cans, glass bottles, or paper, they have two choices: throw them in the trash or recycle them. Throwing them in the trash means they will go into a landfill, which will ultimately mean more landfills. Landfills are toxic and thus dangerous to the environment. In addition, it means more natural resources will be needed to make more cans, paper, and bottles, and that will also contribute to air and water pollution. Recycling these objects means that their materials will be used again, reducing the need for cutting down trees or mining for materials to make cans. In addition, programs exist that pay people to recycle many of the things that they use, including aluminum cans, glass bottles, cell phones, and some types of scrap metal. People can also reuse other things, like using empty boxes to send things in the mail or empty plastic food containers for storing paperwork or tools. All of this reduces the need for making new landfills.

"All the human and animal manure which the world wastes, if returned to the land, instead of being thrown into the sea, would suffice to nourish the world." – Victor Hugo, Les Misérables

II. Agglomerations of food wastes (due to excessive consumption).
Solution: Making organic fertilizers (compost)

Composting is the recycling of food waste into fertilizer for plants. It has many benefits for the environment, including reducing the use of pesticides and chemical fertilizers. This is because it enriches the soil with a natural source of major plant nutrients like nitrogen, potassium, and phosphorus and other substances that plants need to grow. Some types of compost can remove contamination from soil, and all forms of compost serve to enrich soil to foster the growth of plants. Composting helps to fight pollution, and because it reduces the need to buy chemical fertilizers, it can also save money. Composting is not only economically beneficial for homeowners but also businesses.

The benefits of the compost process

Compost contains a full spectrum of essential plant nutrients. You can test the nutrient levels in your compost and soil to find out what other supplements it may need for specific plants.

- Compost contains macro and micronutrients often absent in synthetic fertilizers.
- Compost releases nutrients slowly—over months or years, unlike synthetic fertilizers.
- Compost enriched soil retains fertilizers better. Less fertilizer runs off to pollute waterways.
- Compost buffers the soil, neutralizing both acid & alkaline soils, bringing pH levels to the optimum range for nutrient availability to plants.
- Compost helps bind clusters of soil particles, called aggregates, which provide good soil structure. Such soil is full of tiny air channels & pores that hold air, moisture and nutrients.

Compost helps sandy soil retain water and nutrients.

- Compost loosens tightly bound particles in clay or silt soil so roots can spread, water drain & air penetrate.
- Compost alters soil structure, making it less likely to erode, and prevents soil spattering on plants—spreading disease.
- Compost can hold nutrients tight enough to prevent them from washing out, but loosely enough so plants can take them up as needed.
- Compost makes any soil easier to work.
- Compost brings and feeds diverse life in the soil. These bacteria, fungi, insects, worms and more support healthy plant growth.

Compost bacteria break down organics into plant available nutrients. Some bacteria convert nitrogen from the air into a plant available nutrient.

- Compost enriched soil have lots of beneficial insects, worms and other organisms that burrow through soil keeping it well aerated.
- Compost may suppress diseases and harmful pests that could overrun poor, lifeless soil.
- Healthy soil is an important factor in protecting our waters. Compost increases soil's ability to retain water & decreases runoff. Runoff pollutes water by carrying soil, fertilizers and pesticides to nearby streams.

Compost encourages healthy root systems, which decrease runoff.

- Compost can reduce or eliminate use of synthetic fertilizers.
- Compost can reduce chemical pesticides since it contains beneficial microorganisms that may protect plants from diseases and pests.
- Only a 5% increase in organic material quadruples soils water holding capacity.

III. Excessive energy consumption that leads to depletion of natural resources that are needed to produce it.

Solution: Energy conservation

Energy production and use is one of the major causes of pollution and natural resource depletion by human beings. Conserving energy not only reduces the consumption of energy, and thus the need for energy production, but it also cuts down on air and water. Energy and the environment are closely linked, so improving your facility's energy efficiency not only saves you money, but it also saves important natural resources.

Significant environmental benefits gained by adopting energy efficient technologies and processes include:

- lowering the demand for natural resources;
- reducing the emission of air pollutants;
- improving water quality;
- reducing the accumulation of solid waste, and;
- reducing climate change impacts.

Improving energy conservation at your facility can improve your facility's overall efficiency, which leads to a cleaner environment.

IV. Excessive water consumption combined with pollution of aquatic resources.

Solution: Water conservation and eliminating water loss

While 75 percent of the world's surface is covered by water, only one percent of that is drinkable. Water pollution and waste reduces the amount of water that humans can use and can cause or exacerbate water shortages. Repairing leaky plumbing such as pipes or dripping faucets is one method of conservation that can save thousands of gallons of water annually. Dishwashers should only be run when they are full, as that will save more water than washing several smaller loads. Short showers, low-flow shower heads, and low-volume toilets will also reduce the usage of water at home.

What are the benefits by conserving water?

- Saves money;
- Protects drinking water resources;
- Minimizes water pollution and health risks;
- Reduces the need for costly water supply and new wastewater treatment facilities;
- Maintains the health of aquatic environments;
- Saves energy used to pump, heat, and treat water.

V. The human, technological, economic & social activity stand under the sign of consumerism.

Solution: Create or recreate a mentality of sustainable, good quality and the most complete and prolonged use of resources

Sustainable living goes beyond individual acts of eco-friendliness such as recycling, energy and water conservation, or controlling pollution. It is all of the above, but more importantly, it's the general principle that people should reduce or eliminate waste to achieve no net increase in the need for natural resources. Sustainable living is essential for preventing humans from exhausting Earth's natural resources, including fertile and arable land, breathable air, and drinkable water. It is also important for space travel, where a hypothetical human-designed environment would likely be too small and fragile to tolerate waste or pollution. Sustainability is the merging of all eco-friendly methods into a general lifestyle in which excess or unnecessary waste and increased resource consumption are things of the past.

Ten simple tips for sustainable living:

1. Turn off your computer monitor when you'll be away for more than a few minutes. Turn off and unplug your printer, speakers, and other peripherals when you're not using them. Turn off the lights and music every time you leave the room.
2. Print rough drafts of papers on the back of scrap paper, or (if it's all right with the professor) print your papers on both sides.
3. Use two hands to brush your teeth - one to operate the toothbrush and the other to turn off the faucet when you're not actively using the water.
4. Use your own mug when you're getting coffee or tea to go - U.Va. Dining locations offer discounts, and you save paper cups.
5. Recycle utilizing U.Va.'s award-winning program.
6. Refill reusable water bottles and store them in a refrigerator instead of buying new disposable bottles of water.
7. Wash only full loads of laundry.
8. Buy used and/or recycled products (including textbooks) whenever possible.
9. Take only what you will eat in the dining halls and choose fresh, less-processed snacks (fruit, veggies, yogurt, cheese, whole grains) instead of processed items with excessive packaging.
10. Take the bus (free with a U.Va. ID) or, better yet, walk or bike to your destination. It saves gas, money, and wear on your car, and you'll be healthier for it.

The benefits of a sustainable life

Living more sustainably, at home, at work and when you travel, has all sorts of benefits. The payback for our environment and the planet is obvious, but there are also lots of benefits to be gained personally from a more sustainable approach to everyday living.

- Save money - reduce your energy consumption, generate your own power, cut back on water use, grow your own food, reuse, buy recycled and second-hand goods, or buy in bulk. It'll save you money - and help the environment.
- Be healthier - be more sustainable by walking and cycling instead of using the car sometimes, buy and prepare good quality locally-produced food, and eat less meat. All of these actions are great for your wellbeing.
- Detox - cut out toxic chemicals by switching from supermarket household and cleaning products to more natural, cheaper alternatives. It'll be good for your health, the health of your home, and your pocket. There are loads of tips available online or check out City of Gold Coast Libraries' green cleaning resources.
- Reconnect with your community - sustainable living relies on people working together. Whether you're buying locally-produced goods or getting involved in a community project, you'll make connections with new people.
- Grow your knowledge and skills - as your lifestyle becomes more sustainable and you do things differently, you'll develop new knowledge and skills. Sharing that experience is a great way to inspire others to do the same.
- Improve your quality of life - every effort you make to live more sustainably adds up, and you'll soon notice the difference to your life. Whether you have more money, feel healthier, feel more productive or more in touch with where you live, your quality of life will have improved in some way, and so will your contribution to our planet's future!

KEEP IN MIND:

- THE CLIMATE DESTINY MUST BE CONTROLLED BY OURSELVES;
- CLEANING OUR ENVIRONMENT SHOULD NOT BE IGNORED;
- AUTHORITIES MUST BE SIGNED ALSO BY THE POPULATION, NOT ONLY BY NGOS;
- A CLEAN ENVIRONMENT LIFTS THE INTELLECTUAL STANDARD;
- A PIECE OF PLASTIC IN AN ENVIRONMENT DEGRADES IN OVER 400 YEARS!

References:

1. University of Massachusetts Amherst / Waste Management Department; Link: umass.edu;
2. University of Washington Stateversity; Link: whatcom.wsu.edu;
3. U.S. Environmental Protection Agency; Link: epa.gov
4. Ecotech Water, LLC; Link: ecotechwater.com;
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Environmental benefits of recycling

Manufacturing recycled products requires, on average, 17 times less energy than manufacturing the same products from virgin materials.

Material	Energy Savings	Environmental Impact	Natural Resource Savings	Miscellaneous Info.
 Aluminum	95% energy savings; recycling of one aluminum can saves enough energy to run a TV for 3 hours (Reynolds Metal Company)	Reduces pollution by 95%. (Reynolds Metal Co.)	4 lbs. of bauxite saved for every pound of aluminum recycled (Reynolds Metal Co.)	Enough aluminum is thrown away to rebuild our commercial air fleet 4 times every year
 Glass	50% energy savings (Center for Ecological Technology); recycling of one glass container saves enough energy to light a 100-watt bulb for 4 hours (EPA)	20% less air pollution; 50% less water pollution (NASA)	1 ton of glass made from 50% recycled materials saves 250 lbs. of mining waste (EPA)	Glass can be reused an infinite number of times; over 41 billion glass containers are made each year (EPA)
 Paper	60% energy savings (Center for Ecological Technology)	95% less air pollution; each ton saves 60 lbs. of air pollution (Center for Ecological Technology)	Recycling of one ton of paper saves 17 trees and 7000 gallons of water (EPA)	Every year enough paper is thrown away to make a 12' wall from New York to California
 Plastic	Plastic milk containers are now only half the weight that they were in 1960 (EPA)		If we recycled every plastic bottle we used, we would keep 2 billion tons of plastic out of landfills (Penn State)	We use enough plastic wrap all of Texas every year (EPA)
 Steel	74% energy savings; every pound of steel recycled saves enough energy to light a 60-watt bulb for 24 hours (Penn State)	Every year we create 11.5 million tons of ferrous wastes (Steel Recycling Institute)	One ton of recycled steel saves 2,500 lbs. of ore, 1000 lbs. of coal, and 40 lbs. limestone (Center for Ecological Technology)	Enough iron & steel is discarded in the US to continually supply the nation's automakers (Steel Recycling Institute)