

Gender and waste management: “The fridge on the Drina”

A case study

This case study explores the challenges in waste management in the Drina River Basin, and their impact on the environment and the social fabric of the local communities and the well-being of their inhabitants.

The river Drina was once known best for the 16th century bridge at Visegrad. The famous stone bridge was the main protagonist of the Ivo Andric Nobel-winning novel the Bridge on the Drina.



Unfortunately, when these days one searches for information about this beautiful river, pictures of pollution and floating waste are the first to pop up. A waste so immense that can be seen from satellites. An apt metaphor to describe this could be “the fridge on the Drina”.

The key questions we will explore today are: can women and men in the Basin do better than that? Can they succeed in defending the river against themselves? Can they harness the river’s potential as the cornerstone of sustainable economic progress, tourism, and entrepreneurship?

In the coming years, when we Google for Drina, what are we going to see? Floating fridges and toxic waste?



Or a pristine river we once knew?



Situation

The high waters of the Drina river and its tributaries sometimes take downriver with them trees from the river banks, and other biological material. This is a natural phenomenon, quite characteristic of the Lim Valley.

At the same time, in many municipalities along the Basin the problem of solid waste disposal is not adequately solved. The situation is particularly bad in rural areas. As a result, there are many *known and unknown* illegal waste dumping sites on the banks of the Drina and the Lim that their periodically rising waters sometimes take downstream. When the water level decreases some of the waste may be trapped on the tree branches.



In 2020 the problem of solid waste was further exacerbated as many domestic tourists who, due to covid-19 restrictions, could not travel abroad, so spent their vacations on the rivers and lakes in the three countries.

The floating waste has for many years been a problem for the operators of hydropower plants; they had to learn how to manage it. For example, each HPP has a chain barrier a distance upstream from the dam to stop, fish out and remove such material, so that production of electricity can continue unhindered.

In January 2021 such a barrier near HPP Visegrad broke under the pressure of up to 9,000 cubic meters of waste.



The world media reported widely these sad pictures of thousands of tons of floating waste that had accumulated upstream from the hydropower plants near Priboj, Visegrad, Bajina Basta and Zvornik. Although most of it is wood and other biological material, the floating islands of waste contained significant quantities of solid waste -- water and beer PET bottles, polyethylene bags, used detergent and pesticide containers, automobile tires, even fridges.

Most of this waste could have been recycled; for example PET bottles. But, to our knowledge, it is not.

Worse yet, some of it is hazardous waste. As such, it in principle could be subject to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. [The Basel Convention, adopted in 1989, is the most comprehensive global environmental agreement on hazardous and other wastes. Bosnia and Herzegovina, Montenegro and Serbia are its parties and as such are obliged to “ensure that the transboundary movement of hazardous and other wastes is reduced to the minimum consistent with the environmentally sound and efficient management of such waste.”

So, this is the situation with the floating waste on Drina. Now we will explore two central questions:

1. How does all this relate to our Nexus?
2. What is the gender dimension of the problem -- and of its possible solutions?

Nexus water - energy - environment - tourism

Concerning the Nexus, in our concept note we have stressed that the ecosystems, natural resources, and human activities depend on each other and that water, energy, agriculture, and natural ecosystems are interlinked. The waste problem clearly demonstrates that sectoral, silos approach cannot always be efficiently applied. To find a solution in situations like these, we need the Nexus approach and analyse interlinkages, synergies, and trade-offs.

Take, for instance, the link energy - ecosystems. Could we use the biological portion of the floating waste as a source of energy? There are already such projects on cogeneration -- e.g., the [CoolHeating project](#) on small modular renewable district heating systems using biomass in the City of Šabac.

Or, how about polyethylene terephthalate (PET) plastic bottles? Could women and men in the Basin develop small scale waste collection, processing and recycling?

Then, there is the link waste - tourism. The Drina river provides many opportunities for an active and exciting vacation for the whole family -- white water rafting, camping, hiking, mountaineering, swimming, fishing, sailing on the lakes. The floating waste has an enormous negative impact on the Drina river brand as a tourist destination. Many current and future small businesses, such as ethno-villages, are affected.

Finally, the floating waste is really a tip of the iceberg, so to speak. There is even a more pressing issue: water pollution due to plastic degradation processes (microplastics), municipal and industrial waste, and absence of mitigation through wastewater treatment plants along the river. In our view, water quality is maybe less visible, but it is a much more serious problem than the floating waste - for it directly affects human health and ecosystems. As such, it requires enormous attention. It is a topic for a different occasion.

Gender

We will now look into women's role in the sustainable management of natural resources – including waste management – and in the decision making on finding a balance between various sectors – energy production, waste management, tourism, agriculture.

In a sense, the waste on the Drina problem affects both women and men equally. We admit that finding its gender dimension is not that straightforward, but there is one. For a start, many of the long-term problems in the Drina River Basin are a consequence of the men-led socialist model of industrial development.

Before we turn to our panellists today, here are a few thought-provoking questions:

Are women more interested in solving these long-term problems by trailblazing a path towards more sustainable solutions?

How can the solid waste be turned into an opportunity? What could be the role of women in it?

The education about waste management and the need to recycle, reuse and reduce (RRR) starts at home. How can we help women gain experience in RRR? How can we help them convey this knowledge to their families and the whole community?

Rivers flow downstream, and so does the waste. How can women help connect the communities up- and down-stream and share good practices in education about waste management and recycling? Can social media play a role in this? How about new and advanced technologies?

Our panelists, who will explore these challenges and offer some interesting ideas on how to turn them into opportunities for all men and women in the Drina Basin and beyond, are:

Senka Mutabdžija Bećirović, Energy and Environment Program Associate, UNDP BiH

Dragana Ivanović, Head of the Environment Department, Bajina Bašta Municipality

Jelena Šijaković, Engineer for ecology, Department for Quality and Environmental protection, Drina Hydropower Plants, HPP Višegrad

Zorica Korać, Environment Portfolio Manager, UNDP Serbia

* * *