

EnvironMEntal issues



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EnvironMEntal issues



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INVESTIGATIVE
REPORTING NETWORK

**Investigative journalism on EnvironMEntal issues,
with citizens' engagement**
Istraživačko novinarstvo, ekološke teme, učešće građana/ki



Ministarstvo javne uprave

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INTRODUCTORY REMARKS

Chapter 27 - Environment and Climate Change is one of the last opened by Montenegro in the negotiation process with the European Union (EU) in late 2018. Although more than three years have passed since then, progress has been slow and there seems to be a long way ahead until the country harmonizes this area with the EU.

This Chapter is one of the most demanding and expensive. It is estimated that the overall cost could greatly exceed one and a half billion euros, but the application of standards and practices of developed European democracies would bring great benefits to the citizens of Montenegro but also Europe because the air, rivers, and seas polluted in Montenegro do not belong only to us.

Even though Montenegro is by its Constitution defined as an ecological state, in the last few decades its nature has been devastated mercilessly - wildfires have burned, forests have been destroyed, numerous plant and animal species have been endangered, water, soil, and air have been polluted. At the same time, the population became poorer and money from suspicious projects brought profit to a small number of individuals close to the ruling circles.

Through the two-year project *Investigative journalism on EnvironMEntal issues, with citizens' engagement*, we endeavored, through in-depth journalistic research and analysis, to present the public some of the examples of devastation but also to identify the problems and to point out to a possible direction and strategy for the implementation of European standards and fulfillment of obligations from the Chapter 27.

The project was implemented by the Center for Investigative Journalism of Montenegro (CIN-CG), weekly Monitor and the Balkan Investigative Regional Network (BIRN), with the dominant financial support of the Delegation of the European Union to Montenegro and co-financing of the Ministry of Public Administration of the Government of Montenegro

This publication is a collection of the most important investigations that were produced and published during the project implementation. Investigative articles have been re-published in numerous local and regional media and they reached hundreds of thousands of readers. They are also available in the English language. The articles covered various topics, such as the devastation of the riverbeds, depletion of flora and fauna, endangering of the spring Bolje sestre which supplies almost the entire Montenegrin coast with water, air quality and causes of air pollution, consequences of building the hydropower plants, hazardous waste and forest fires.

We have found that devastation is usually followed by bad plans, insufficient control system, weak institutions, but also poor organization, violation of the law, corruption at the highest level, which usually goes unpunished, due to problems with the rule of law in Montenegro. Some of our research, such as the one about the devastation of the Moraca riverbed due to gravel extraction and endangering the source of Bolje sestre, produced more social actions, including the reaction of the authorities. The prosecution has launched an investigation, and several individuals have been arrested by the police on suspicion of violating the law.

The general conclusion of our project is that the profit of a small number of privileged profit-seeking individuals is more important than the public interest and environmental protection.

Our generation should do everything to raise the standards in this area and stop the environmental devastation and respond to the difficult challenges posed by climate change. The role of the media is also irreplaceable. Its duty is not to be silent but to inform citizens about the current situation and the root causes and consequences of environmental degradation. In short, the media should search for the truth and publish it, at all costs.

During the implementation of this project, we have enjoyed great support from civil society organizations dealing with nature protection. The Montenegrin Ecologists Society (CDE) provided a significant contribution not only in suggesting the topics for investigation but also referring to sources, providing documentation, and assisting in the production of the documentary: *Montenegro and Fires: Causes and Consequences*, which was broadcast on multiple platforms. Our project was also supported by the daily *Vijesti* and TV *Vijesti*, which made the investigations available to the tens of thousands of citizens of Montenegro.

Representatives of other media in Montenegro, who participated in part of our research, also made a significant contribution to the realization of the project. We believe that working together is a good example of how different actors on the polarized Montenegrin media scene can gather around the public interest. The contribution was also given by the citizens, who reported problems through the platform on our site.

We would like to thank all the participants in the project, especially the Delegation of the European Union to Montenegro and the Ministry of Public Administration. Without their support, the implementation of this project would not have been possible.



OIL AND GAS EXPLORATION IN THE MONTENEGRIN UNDERSEA AREA: **EMPTY NETS AND DREAMS OF BILLIONS**

DESPITE THE CLEAR MESSAGE OF THE EUROPEAN UNION THAT FOSSIL FUELS ARE THE PAST, AND THAT THE FUTURE IS RESERVED FOR ENVIRONMENTAL AND RENEWABLE ENERGY AND DESPITE BAD EXPERIENCES FROM THE REGION MONTENEGRO STARTED DRILLING THE ADRIATIC BOTTOM. ENVIRONMENTAL ACTIVISTS ANNOUNCE THAT THE PROTESTS WILL BE CONTINUED AFTER THE TOURIST SEASON

Branko Vujičić, an experienced fisherman, searches in vain for shrimp and prawns on the bottom of the Adriatic. The fish stock is declining, he says, and he attributes that to drilling the seabed in search of oil.

“They live on the bottom of the seafloor so drilling is probably causing some vibration that affects the fish. There are no shrimp anymore, we cannot catch even two kilos, and we used to catch a hundred. Their price has now dropped to three euros. This is not the case only in Ulcinj and Bar, but also in other cities – I have been fishing for them all along the coast, but it seems that shrimp are gone. Shrimp and sardines are food for all other fish”, Vujičić says in an interview for the Center for Investigative Journalism of Montenegro (CIN-CG)/Monitor.

The Topaz Driller giant metal jack-up rig started drilling operations looking for possible oil and gas deposits on March 25 on 20 kilometers from the coast, between Ulcinj and Bar. The investor, the Italian-Russian consortium Eni-Novatek, will search for black gold to a depth of 6,500 meters. Whether there is oil in the Montenegrin submarine will be known, allegedly, at the beginning of September.

The oil and gas exploration continues despite the warnings of environmentalists that this is a risky endeavor and violation of the Paris Agreement and the announcements of the new protests at the end of the tourist season. The fishermen’s complaints regarding the decline in fish stock due to the drilling are also in vain. However, the drilling continues with the blessing of the current Government, which in this case continued the work of the previous Government.

Not even enough fish to cover the cost of fuel

In a statement for CIN-CG/Monitor, the Ministry of Capital Investments says that according to the information they have, “ongoing oil and gas research has not in any way affected maritime traffic and the work of the Port Authority. The traffic flow is normal and everything is in the right order.”

“They forbid us to approach that platform within a few kilometers. And our sea is small, if I take a boat ride from Ulcinj in the morning, here I am in Croatia in the afternoon”, Vujičić, who is also the president of the Association of Professional Fishermen of Budva St. Nikola, says.

Dragoljub Bajković, president of the Association of Professional Fishermen of Bar, believes that fish from the seabed, including shrimp, began to disappear with the first seismic surveys that preceded the current drilling.

“A couple of years ago, seismic surveys were done, during which the pressure at the bottom was 3,000 bar. Then the fish from the bottom were killed, or migrated to the other side where there were no

such surveys - towards Albania and Boka,” he says.

Bajković is convinced that the current drilling will seriously affect fishermen.

“It affects the fishermen of Ulcinj, Bar, all the way to Čanj. They go fishing from morning to evening, 10-12 hours, and bring a minimum of fish, enough only to cover the expenses of fuel. I catch bluefish and I went fishing 29 times from December to July - 10 times I threw nets, and 19 times I came back, because the fish wouldn’t bite. There are some underwater vibrations from drilling. The fish is running away like wild. Something is completely disturbed. And a lot of us make a living from fishing.”

Before the start of drilling, a meeting was organized with the representatives of the fishermen’s association at the Ministry of Capital Investments.

“Fishermen told them that they were not looking forward to that research, but if the state decided to carry out these explorations, we must accept it,” Milun Anđić, president of the Association of Vessels of Montenegro, says.

At the request of fishermen to form an equalization fund that will help the development of fisheries, the Ministry answered that it will be formed as soon as oil exploration begins.

Government: Everything is fine

“We emphasized the importance of environmental protection and received assurances that they have quadruple systems. They explained to us that the depth at which oil is extracted is 110 meters and that it is accessible to divers, devices, valves so that in case of a leak everything can be closed immediately. They gave guarantees that the ships specialized for oil leaks are ready in Italian ports and that they could be there in 10-15 hours to suck up the oil”, Anđić says.

He assesses that the fishermen had no choice and that they gave tacit consent to the assurances that the fishing industry and the oil industry could work together.

According to Anđić, previous research on fish stock was done arbitrarily and not properly. That is why the fishermen complained to the institutions: “That research was carried out by ships that aren’t specialized. No fishing boats were taken. It was all financed by investors.”

Bajković also says that the investor and the Institute of Marine Biology should have determined the initial state of the fish stock during this year, which, as he says, does not exist.

“The Institute of Marine Biology did not conduct a study of the impact on fisheries. It monitored fishing activities before and after seismic, i.e. analysis of the catch structure of small-scale coastal and large-scale commercial fishing. We are not engaged in current activities related to the platform in terms of fisheries monitoring. We may be involved after the completion of activities related to the platform”,

Dr. Aleksandar Joksimović, director of the Institute of Marine Biology, says for CIN-CG/Monitor.

The beginning of drilling was marked with environmentalists' protests who pointed out the numerous environmental risks of this exploration, while the new Government convinced them that there was no room for anxiety. Prime Minister Zdravko Krivokapić said that the concession agreement, signed in 2016, was rarely a good decision made by the previous Government. He also assessed that the possible impact on the environment is negligible.

Environmental organizations and activists voiced their opposition to the start of drilling, while the ruling CIVIC MOVEMENT United Reform Action (GP URA) called for a referendum. The Prime Minister suppressed the opposing views by claiming that the termination of the deal with Eni-Novatek would cost the state around one hundred million euros and that the referendum would be technically unfeasible in the conditions of the corona crisis, at a cost of around two million euros.

Minister of Capital Investments Mladen Bojanic also claims that this is a good project. He has said many times that potential oil and gas reserves are measured in billions of euros.

Bojanic: It's all at their expense

"The main characteristics of the contract with the Eni-Novatek consortium are that Montenegro has not invested a single penny in the research and that the concessionaires bear all the costs," Drasko Loncar from the Ministry of Capital Investments told Monitor/CIN-CG. He explains that Montenegro has provided guarantees, "on the mandatory work program", and that the concessionaires have unlimited and joint liability to compensate the damage and lost profits to the state and third parties in case of an incident, and most importantly, that the state provided profits between 62 - 68 percent.

Loncar explains that the obligatory work program that the Eni-Novatek concessionaires have committed to includes: 3D seismic research, geological and geophysical studies, and two exploration wells of 6,500 and 1,500 meters.

In case the concessionaire does not fulfill the obligatory work program, according to Loncar's explanation, Montenegro could activate the guarantee of 84 million euros that it has provided and possibly hire another company to continue with exploration.

The Ministry of Capital Investments points out that, if no commercial hydrocarbon reserves are found, the entire cost of exploration will be borne by the concessionaire, without any obligation on the part of the state to participate in it.

"This is a business that is unprofitable, risky, and harmful to the environment and the economy of Montenegro, primarily tourism and fishing,"

Mustafa Canka, a journalist dealing with this issue for decades, stated.

He points out that the officials are only talking about financial benefits and percentages, without publicly stating that "in the best case, in their most optimistic scenario, we can earn around 60 million euros a year. And only in a few years."

"To find oil, more wells need to be drilled, more analyzes conducted, so in the best case the exploitation would start in three years. Until then, we will question everything, especially tourism from which in the case of a good season, the state earns a little over a billion euros, while at least a third of the income remains in the gray zone", Canka says for CIN-CG/Monitor.

A romantic turtle saga

He wonders if it is profitable if we compare 1.3 billion with 60 million. He stated that guests from the West are not thrilled to have a view of the oil platforms. He notes that the damage done to the flora and fauna in the sea will never be calculated, as will the damage suffered by fishermen.

However, the Ministry of Ecology, Spatial Planning and Urbanism is not worried about this project and its impact on the environment. In addition to the obligation to respect domestic regulations that regulate the field of environmental protection, this Ministry also states that the contract envisages two special mechanisms for compensation of possible damage. The first is the Parent Company Guarantee of the concessionaire which covers payments of all obligations under the contract in case of non-performance, as well as all non-contractual obligations to third parties in case of direct damage or losses incurred in connection with these activities (including pollution or incidents). This guarantee, as they explain in the Ministry, means that the concessionaires guarantee the value of the parent company and not the one registered in Montenegro, which is incomparably smaller.

The second mechanism is the Mandatory Comprehensive Insurance Policy for the Oil and Gas Industry, which covers the complete operations performed by the Eni operator, including all their subcontractors.

"Montenegro has ensured that in case of any damage to the environment, it has the possibility of reimbursement of costs, including damage to third parties. In this particular case, that means, for example, that the compensation for possible damage would be paid to the fishermen as well", they say from the department that also deals with ecology.

The Ministry of Capital Investments also claims that "a large number of ecologists" have a positive opinion on the project, as well as on all the studies done on the protection and preservation of the environment.

"The commitment of the concessionaire towards

the environment should be emphasized. For example, during the seismic research, a turtle appeared in front of the ship and the operations were suspended until it moved away to a safe distance. The cost of waiting or stand by installment was about \$ 150,000. Therefore, we emphasize that the concessionaires have high standards when it comes to environmental protection “, they say from this Ministry.

The oil spill response exercise

Zenepa Lika, an environmental activist from Ulcinj, is not convinced of these standards, claiming for Monitor/CIN-CG that this venture is risky. She explains that it relies on an environmental impact assessment study conducted by the investor.

“The Environmental Protection Agency (EPA) returned the document for revision several times, which means that Eni did not respect Montenegrin legislation. As far as I know, there is no contingency plan in case of oil spills, techniques and projections for recovery “, Lika claims.

The Environmental Protection Agency confirmed that the Environmental Impact Assessment Study, carried out by Eni Montenegro, and prepared by Italian experts, was not done following the rules. In October 2019, the Agency requested certain amendments from the project holder. The revised Study received the consent of the Agency in December of that year.

The Ministry of Capital Investments claims that in case of emergency, there are plans: “There is a reaction plan of the concessionaire, a reaction plan of Montenegrin institutions responsible for this project, as well as a reaction plan in cooperation with the concessionaire.” Also, in June, the oil spill response exercise PLATFORM 21 was held, in which the Administration for Maritime Safety, the police, the army, the Port Authorities, and the Hydrocarbons Administration participated. Of course, in addition to these plans, there are other plans for reaction to all foreseen incidents. “

They also claim that the inspection supervision is constant and that it will remain the same during the entire project.

“The Inspector for Hydrocarbons as well as the Environmental Protection Agency, based on the results of Center for Ecotoxicological Research (CETI) analyzes, are closely monitoring and controlling this project, both at the plant and in the logistics base. For now, the process is completely safe and secure for the environment and staff, as well as for the approved project itself, “ the Ministry stated.

In early April, Ulcinj’s parliament unanimously adopted conclusions expressing great skepticism about seabed drilling.

“The Municipality calls on the Government to participate transparently and cooperatively in the reviewing of decisions related to offshore oil

exploration, taking into account the views of the citizens of coastal municipalities, environmental and economic aspects of demographic data,” it was written in the adopted conclusions.

Lika says that from the very beginning of this non-transparent and undesirable project, the former, and unfortunately the current Government, violated the constitutional right of the citizens of coastal and other cities because they were not timely and adequately informed.

“I note that, for example, the citizens of Ulcinj were surprised when they found out that oil would be explored in our sea ‘again’. They were also denied participation in a public hearing organized in Bar. On the same day, a public debate was held in Ulcinj on a special purpose plan for the coastal area. So, the first part of research is planned on the coast of Ulcinj, and citizens were prevented from giving their opinion “, Lika says.

The Ministry of Ecology points out that the oil and gas industry is not unknown in the countries with which Montenegro shares the sea borders: “So far, about 1,500 wells have been drilled in the Adriatic for the needs of both exploration and oil and gas production.”

Albania’s bitter experience

Eni’s Environmental Impact Study specifies that there are 1,440 wells in the Adriatic Sea (for exploration, production, and other purposes), of which 1,350 were drilled by Eni S.p.A, and that no eruption was recorded in any of them.

“Neighboring Croatia has declared a moratorium on all new oil and gas exploration, even the ‘oilmen’ from Croatia themselves oppose drilling in the Adriatic Sea. They think that oil and clean sea simply do not work together,” Lika says.

She points out that Albania does not have a platform at sea, but exploitation is done on land. She warns of pictures and footages from 2015 when a big accident happened in the village of Marinza in the south of Albania when the entire settlement was flooded with oil so the citizens were forced to evacuate, while a strategic investor from Canada, Bankers Petroleum, simply pleaded not guilty to the incident.

Referring to the Albanian experience of oil exploration, Canka also says that “it indicates that Montenegro should not enter this dangerous deal”.

“Since 1990, research has been conducted on large global companies in the Albanian part of the Adriatic, and there are no concrete results. “Only in a few cases oil was discovered, but it turned out to be an unprofitable exploitation,” Canka points out, noting that sweet dreams of “Albania floating on oil” were also dreamed in that country during the 1990s.

“After three decades, the illusions dissipated in the Adriatic and, unfortunately for us, reached the

official Podgorica,” Canka says.

Montenegro has started drilling the Adriatic, despite the European Union’s clear message that fossil fuels are the past and that the future is reserved for environmental and renewable energy.

In November 2019, the finance ministers of the countries of the European Union agreed that the financing of projects that include oil, gas, and coal should be stopped. On that occasion, they called on the European Investment Bank, the World Bank, and other financial institutions to stop giving loans for those purposes. It was the first time that senior European government officials sought to end funding for all fossil fuels, taking into account sustainable development and energy needs, and the energy security of partner countries.

Environmentalists remind that Montenegro is a signatory to the Paris Agreement, by which 200 countries committed themselves to gradually abandon the use of fossil resources.

“With this project, we are violating the agreement and forcing the exploitation of fossil fuels, even though we know that this type of exploitation affects climate change and certainly the quality of our sea, regardless of the opposite claims,” Lika concludes.

Under the Green Agenda for the Western Balkans, the EU has mobilized up to nine billion euros for innovative and green ideas and projects. Environmentalists believe that it would be better to use this opportunity for long-term environmental and financial benefits than to drill the seabed.

The actions of environmentalists against underwater drilling, as announced by the interlocutor of CIN-CG/Monitor, will continue.

The actions of environmentalists against undersea drilling, as Lika announces, will continue.

“We have not given up on our demands and we are asking for the suspension of oil and gas exploration and exploitation. We have stopped the protests during the tourist season because we sympathize with the citizens and we do not want to spread an even more negative image of our country”, Zenepa Lika says.

A small amount of oil sufficient for great damage

Only eight grams of oil is enough to pollute a cubic meter of seawater. One cubic meter of spilled oil depletes oxygen from 400,000 cubic meters of the sea, the report of the State Audit Institution (SAI) states, which published an Audit of the Efficiency of Intervention Management System in Case of Sudden Pollution in the Adriatic Sea in April.

The audit found poor cooperation between national institutions, non-compliance with outdated strategies, and that no coastal municipality has a plan and risk assessment in case of sudden sea pollution, as well as lack of adequate equipment to respond to large-scale pollution...

The SAI’s document also states the Hydrocarbons Administration’s response regarding the current exploration works: “Measurements of the fish catch in the zone of the proposed activities were performed both before and after the geophysical research by the concessionaire, to compare data on the fish catch before and after the activities. Also, since the fishing activities during the geophysical research were difficult, the concessionaires compensated the fishing associations for the time during which the geophysical research activities took place, following the measures from the study on environmental impact assessment.”

Predrag NIKOLIĆ



TWO INTERNATIONAL ARBITRATIONS LOOM OVER WATER TREATMENT PLANT IN BUDVA AMIDST ACCUSATIONS OF POLLUTION AND CORRUPTION

INVOICES INFLATED BY MILLIONS WHILE INVESTIGATION TAKES FOREVER

NUMEROUS WORKS WERE EITHER FICTIVE OR OVERCHARGED, LOWER QUALITY MATERIAL WAS USED IN CONSTRUCTION BUT INVOICED AS TOP QUALITY AND HENCE MORE EXPENSIVE, EXPERTS CLAIM. WASSERTECHNIK ESSEN LLC HAS ALREADY POCKETED AROUND €42 MILLION AND REQUESTS ANOTHER €35.34 MILLION TO BE PAID, WHICH IS VIGOROUSLY CONTESTED BY BUDVA MUNICIPALITY. FURTHERMORE, INTERNATIONAL ARBITRATIONS WILL COST BUDVA MILLIONS OF EUROS. SPECIAL PROSECUTION OFFICE HAS LAUNCHED “INQUIRIES” THAT DRAG ON INDEFINITELY

Invoices for the construction of a wastewater treatment plant in Becici are inflated by more than €20 million according to those involved in the project and the findings of two independent experts. The allegations are further corroborated by various documents that *the Centre for Investigative Journalism in Montenegro* (CIN-CG), *Balkan Investigative Reporting Network* (BIRN) and *Monitor* had access to.

Furthermore, Budva Municipality has not solved the key environmental problem as only the central part of the municipality is connected to the newly constructed plant. The sewage from the territory of Jaz, Petrovac and Buljarica continues to flow into the sea untreated, while the sewerage system for Montenegro's top brand and tourist destination Sveti Stefan (Saint Stephen) has not been built.

Three million euros were stolen from the municipal treasury through a false invoice before the construction even began as court documents and verdicts show. Moreover, Slovenian expert Dr Joze Duhovnik, hired by the opposition led local government since October 2016 election, claims that €41.4 million invoiced by the German company *WasserTechnik Essen* (WTE) should be reduced by €12,629 million. That's how much the Germans overcharged according to him. Financial expert Ilinka Vukovic, hired by the Municipality and later on by the Special Prosecution Office (SPO) discovered other controversial invoices with the amount in dispute exceeding €3,5 million. Furthermore, the management costs for the facility were overcharged between €500 to €700 thousand annually during five and a half years when WTE operated the plant.

The city of Budva is at risk to lose additional tens of millions in the launched international arbitrations over mounting disputes with the Germans. The first arbitration is due to begin on 9 February 2021 in Frankfurt. WTE collected so far between €12.5 and €13.8 million for its services to the Municipality (the exact figure is a matter of dispute) and activated the Government of Montenegro guarantee of €29.3 million. WTE claims another €35.34 million. The second arbitration will take place in Geneva. The litigations' costs will be an extra burden to the embattled municipal treasury.

However, so far no one has been held accountable for the inflated invoices, fictive works and services, and the instalment of cheaper and poorer quality material and equipment. The exception is the aforementioned theft of the first €3 million confessed in the plea agreement by the then vice president of the *Democratic Party of Socialists* (DPS) and the informal ruler of Budva, Svetozar Marovic. Three of his former associates also accepted the plea agreement with the SPO.

The plea agreement reveals that the money

was used to repay Marovic's private debt to a certain businessman Gojko Kapisoda. The prosecutor and the court were extremely lenient and sentenced Marovic to only three months in prison. Shockingly, neither the SPO nor the High Court ordered Marovic to return the stolen millions to the Municipality under the terms of the plea agreement. Moreover, Marovic avoided prison having moved to Belgrade where he lives now. The then executive of the local WTE Wastewater Budva *Guenther Faust* who made the fake invoice and redirected the money to Marovic got away with his crime having become the witness-collaborator for the prosecution.

The Special Prosecution Office appeals to "ongoing inquiries" when asked about responsibility for not prosecuting other criminal offences in regard to the water treatment project.

Milking the Municipality

The German company WTE signed on 8 July 2009 a so-called DBFO (design-build-finance-operate) contract with the Municipality of Budva on the construction of three wastewater treatment plants in Becici, Jaz and Buljarica, as well as a sewerage system in Sveti Stefan. The overall capacity was to serve the population of 130 thousand. The value of the project was €58.56 million plus interest and variable costs, on condition that the total investment shall not exceed the tender prescribed limit of €85 million. The contract also provided for annual management costs of €1.7 million until 2042 while Budva was to repay the investment by 2034. The project was only partly completed when the water treatment plant in Becici began its trial operation in July 2014. It was officially opened in early October 2014.

Two months after concluding the contract, the Germans founded a subsidiary company WTE *Wastewaters* LLC Budva which signed a €61 million loan agreement with her parent company in Essen in early June 2010 to finance the project.

To ensure that the work would be properly done, the Germans handed over to the Municipality a guarantee from *Bayerische Landesbank of Nuremberg* (issued on 9 July 2009) for the amount of €4.25 million. It was valid until 8 July 2014. The then local DPS controlled city council did not ask for an extension. A former municipal official, who wanted to remain anonymous, explained to CIN-CG/BIRN/*Monitor* that the Germans offered not to insist on immediate payment of the already accumulated invoices if the locals would forget the bank guarantee. At the time the treasury of Budva was empty.

On the other hand, the government lodged a payment guarantee for the amount of €29.3 million on 16 October 2010. It covered 50% of the overall basic investment and it was payable

on first call and without the right to protest. Moreover, five months earlier, the then mayor Rajko Kuljaca issued a payment guarantee for the amount of up to €66 million. However, he neither had the formal consent of the Government nor the decision of the local city council, as the law prescribed. WTE activated the government issued guarantee on 18 December 2019, while the mayor's guarantee is the subject of international arbitration in Frankfurt.

Interlocutors of CIN-CG/BIRN/*Monitor*, who were previously highly positioned in the *Democratic Party of Socialists* (DPS), claim that the water treatment project was "preceded by an agreement between Svetozar Marovic and the state (and the ruling party) leadership". Marovic owed money to private individuals. Two of them confirmed it to CIN-CG/BIRN/*Monitor* on the condition of anonymity. Marovic also owed money to *First Bank* owned by Aco Djukanovic, the brother of the then Prime Minister and now President Milo Djukanovic. The interlocutors from the DPS said that eventually it was "agreed" to include the water treatment facility in Becici in the scheme whereby Marovic's debts would be returned through fictive and "many times inflated invoices at the expense of quality and volume of works". Allegedly the Germans agreed to that.

The press service of President Djukanovic categorically denied the existence of such an agreement. "No, no such idea was ever brought up. And if it was, it would certainly not be accepted" is said in the reply sent to CIN-CG/BIRN/*Monitor*.

Marovic refused to respond to the allegations of his former party colleagues. The representative of the investor also denied allegations of corruption. *First Bank* replied that their representatives "neither had knowledge, nor took part in the agreements you mentioned". The Bank wouldn't answer on whether Marovic and *Property Investments* have settled their debts, if there was any outstanding debt and about the collaterals for the loans. The Bank appealed to the legally binding confidentiality and non-disclosure clauses.

However, Marovic's plea agreement with the SPO, and the WTE invoices sent to Budva Municipality that CIN-CG/BIRN/*Monitor* had access to, confirm some of the allegations from our DPS sources.

Skyrocket invoices- from land clearance to maintenance

Soon after the opposition won Budva in October 2016 election, it turned out that the €3 million theft was just one of many.

The then newly elected mayor Dragan Krapovic told CIN-CG/BIRN/*Monitor* that their first challenge was to find the project documents

Budva is not the only disputed case

Mr Zach emphasises that in the last 20 years WTE-EVN has completed 110 projects in 20 countries but they "never had problems like the one in Budva".

Nonetheless, WTE-EVN projects are not going smoothly in other countries either. In Slovenia WTE has three disputes – *Kranjska Gora* is in the courts, *the Lasko Brewery* won the case, and *Bled* ended in a settlement. It is possible that another dispute may arise in Sentjernej.

In North Macedonia problems were resolved through interstate discussions at the highest level.

A dispute in Bulgaria was resolved by the arbitration in Washington, in which both sides were awarded smaller sums than they had asked for.

Reuters Agency in 2014 announced that EVN was planning to activate a €251 million guarantee from the German government after the collapse of a WTE incinerator project near Moscow.

which disappeared after the DPS stepped down. "We couldn't find even the basic DBFO contract as the SPO prosecutors carried away the documentation without receipt and they wouldn't return it either. The archive was in disarray".

The municipality managed to obtain some documents and then launched a review. "Dr Joze Duhovnik from Slovenia was chosen for the job. He had impressive international references," says Krapovic.

Suspicious invoices began to emerge.

Thus, at the very beginning of the project the land clearance was charged €56,195, or €2.5/m², which is at least 20 times the usual price. The clearance included the mowing of grass, removing of shrubbery, trees and stumps on the plot intended for the plant on an area of 22,478m². Entrepreneurs contacted by CIN-CG/BIRN/*Monitor* gave the land clearing quotes from 7c to 10c / m² depending on the size of the area. They even offered discounts for large plots.

Djordjije Vujovic, a City Council member in Budva, told CIN-CG/BIRN/*Monitor* that already back in 2011 he heard from a director of *Tradeunique* (WTE's subcontractor) that they had paid €6 thousand in cash to workers from Ulcinj and that "the investor inflated the invoice by 50 thousand before sending it to Budva Municipality". At the joint meeting in the office of

Three million euro talk over a cup of coffee

In January 2016, police arrested Guenter Faust, the director of WTE Wastewaters Budva. He was released 72 hours later. In his capacity as a witness-collaborator, Faust confessed on 1 May 2016 to the Special Prosecution Office (SPO) that Lazar Radjenovic had told him over a cup of coffee in the Budva café *Hemingway* that "it would be necessary to pay €3 million through a construction company which was yet to be chosen". The lot fell on *Tradeunique* whose owner was Mirko Latinovic – later to become a witness-collaborator against Marovic. Faust admitted that the €3 million "originates from the company WTE itself, with calculations which relate to project and servicing costs... Given the overall amount of the project (€60 million) and the fact that WTE spends around €6 million a year, I consider this amount of €3 million to be not very large... and for this very reason the Municipality of Budva will also pay this €3 million".

In his earlier midnight statement on 14/15 January 2016, when he was taken in as a suspect, Faust said before the SPO that Robert Werth, his senior in Germany "granted permission to conclude the contract with *Tradeunique*".

The sums that the accused admitted to in the almost identical plea bargains do not match each other mathematically. Moreover, the SPO did not extend its investigation so to prosecute WTE bosses in Germany.

It is stated in the plea agreements that, during the period from 21 June 2010 to 28 March 2013 in Budva, Svetozar Marovic incited Lazar Radjenovic, then the vice-president of the municipality, Mirko Latinovic, owner of *Tradeunique* LLC from Budva, and its executive director Goran Bojanic to abuse their official positions. The aim was to extract €3 million from the Municipality of Budva and use the money "to pay off the debts of the company *Property Investments* and of Svetozar Marovic" to Gojko Kapisoda. Marovic was the head and founder of the criminal organisation.

Property Investments was already linked to the Marovic family and its businesses.

Thus Bojanic concluded "a contract for engineering services, maintenance and construction of a channel" on behalf of *Tradeunique*, with Guenter Faust of WTE *Wastewaters Budva* who was following the instructions of Radjenovic, who in turn had been instructed by Marovic.

At the same time Bojanic signed a contract with the firm *Biochem Industries* LLC Budva, owned by Stjepan Skocajic (also the skipper of Marovic's yacht) for "design and engineering services worth €3 million, even though he knew that its contracted work would not be carried out by *Biochem Industries*, but by WTE *Wastewaters*".

Then Radjenovic transferred money from the municipality's account to WTE *Wastewaters*' account, and Guenter forwarded the money to *Tradeunique*'s account. Bojanic then, on the orders of Mirko Latinovic, transferred the first €2.808 million to the account of Skocajic's firm. Later on he transferred the sums of €200 thousand, €100 thousand and €50 thousand. On Marovic's order, Skocajic transferred the sum of €2.4 million to Gojko Kapisoda's account to pay off the debts of Marovic and *Property Investments* per a loan agreement from 2008.

Thus, as it is concluded in the plea agreements with the SPO, Svetozar Marovic and the firm *Property Investments* obtained "illegal gain of €2.4 million, and Stjepan Skocajic obtained the sum of €277 thousand". Skocajic withdrew the aforesaid €277 thousand from the account of *Biochem Industries*, either for his own needs (as is written in the plea bargain with Marovic), or else he "handed it over to M.R. to settle the expenses of the company *Property Investments* that had arisen over the sale of land" (as is written in the plea bargain signed by Skocajic). Thereby the accused "defrauded the Municipality of Budva of €3 million", it is concluded in the plea agreements.

the then mayor Lazar Radjenovic, Vujovic directly asked Ralf Schroder, the executive director of WTE *Essen*, whether it was true that Marovic's debt of €5 million to the aforesaid Kapisoda would be returned through the project.

"Schroder angrily replied that they were Germans, that they valued money and that he would not talk about it anymore," says Vujovic.

Soon afterwards another bloated invoice arrived- for the earthworks and terrain leveling.

"The supervision verified something that was not done. After the geodetic survey, we determined lower costs and reduced the value of the actual works by €700 thousand" explains Duhovnik in the interview with CIN-CG/BIRN/*Monitor*.

He points out that the works on the equipment in the water treatment facility were bloated by €5,282,218.27. "The technical book defines the quality of the equipment and the building materials. However, on the ground we found low quality, poorer properties of the equipment and of the material itself. The pipelines were already cracking. They installed armature for cheaper pumps (25-30%) as they require less material. However, the supervision approved the price as though the stuff was of the best quality".

The Slovenian team led by Duhovnik found out that the construction works on the plant were inflated by €2.92 million, the project documentation by €1.613 million, and the building permits by €0.922 million. The Slovenians also

disputed €1.89 million for the payment of internal supervision of the German company.

“By law, the project supervision should be paid by the Municipality as it is the most important part in the carrying out of the project. In this case WTE paid its internal supervision, which confirmed figures that WTE wanted. At the end, the invoice was sent to the Municipality to pay it, which is unheard of and against the law” explains Dr Duhovnik to CIN-CG/BIRN/Monitor.

WTE Wastewater Budva, led by Guenter Faust at the time, continued to send suspicious invoices while expecting the Municipality to pay them at face value. Financial expert Ilinka Vukovic states on page 99 of her report that “while reviewing the WTE documentation that was extracted by the prosecution office, I had a chance to see an invoice in the total amount of €3,145,000 for the expenses and dues to the parent company (in Essen), while its description includes different types of “meetings and negotiations ...”

The aforesaid invoice (dated October 2009 - September 2010) contains generic descriptions with conspicuously large and round figures: organizational concept draft - €350 thousand, negotiations with the Municipality of Budva - €200 thousand, creation of a letter of guarantee - €420 thousand, specifying details of other contracts - €270 thousand, loan facilitation - €360 thousand, defining of payment terms - €230 thousand, ongoing trade consulting and development - €300 thousand, technical concept development - €790 thousand, technical negotiations with the Municipality of Budva - €155 thousand and project management - €70 thousand. In total - €3.145 million.

“You can instantly see that something is wrong with that invoice. Corruption stinks. You have the project management - 70 thousand, then other figures - 300, 350 thousand ... WTE obviously thought we were fools”, says Djordjije Vujovic.

Another problematic WTE invoice of €535,095.99 was sent to the Municipality for the talks held with KfW-IPEX Bank from October 10, 2014 to October 29, 2015. Vukovic’s report says that the talks didn’t lead to a loan approval for the project. WTE was simply doing “a market research without consent from the Municipality of Budva” which mandated the project. Therefore, WTE should have paid the cost.

However, the city of Budva had its own supervisor for the project - the company *Pro-Ing* LLC Novi Sad (Serbia) which signed the supervision contract worth €678,600 on 19 October 2011. The company’s founder and director Goran Vukobratovic told CIN-CG/ BIRN/Monitor that he disagreed with Duhovnik’s findings. He believes that *Pro-Ing* did a good job for Budva.

“Keep in mind that *Pro-Ing* only supervised the

construction works. We were not responsible for the management costs and the control of financial costs. Furthermore, we are not responsible for the invoices sent before we got the supervision”, says Vukobratovic.

However, Mrs Vukovic in her report points to a controversial role of *Pro-Ing* Novi Sad, because Vukobratovic “was a member of the (tender) commission and among those who signed the minutes after the opening of the bids”. Mrs Vukovic notes that Vukobratovic was mentioned as a consultant for the tender while it was being prepared.

She further writes that besides the company in Novi Sad Vukobratovic has another *Pro-Ing Trade* LLC Budva where he is the sole founder. *Pro-Ing Trade* has done business with WTE *Wastewaters Budva* for years. “That is an obvious conflict of interests” concludes Mrs Vukovic in her report.

CIN-CG/BIRN/Monitor received invoices which *Pro-Ing Trade* LLC Budva sent to WTE for “making of audit report for obtaining a construction permit for WWTP Budva, including the entire sewerage network and pumping stations in the municipality”. One invoice in the amount of €100,800 was issued on 19 May 2011, before the parent company signed the supervision contract. The second invoice in the amount of €39,312 was issued on 27 December 2011, which is after the supervision contract was signed. In response, Vukobratovic claims that “there was no conflict of interests in those two separate jobs”.

“Feel free to check with MORT (*Ministry of Sustainable Development and Tourism*) if a company can work for another company and at the same time supervise the work of that company on behalf of another entity. You have an example of VODACOM which is an ongoing project in Kotor and Tivat”, notes Vukobratovic.

He also says that he can’t see a conflict of interests in the fact that he was on the tender commission team which opened and evaluated the bids. “The tender called for a concept to be proposed, not a detailed design. Thus I was not acquainted beforehand with the project details that I was later meant to supervise. The conflict of interests would exist if I had taken part in the drafting of the concept of which I certainly was not privy”.

Duhovnik says that those explanations are “typical Balkan style” stressing that “in any normal country, this would be recognised as a conflict of interests”.

Germans and Austrians keep silent as they await arbitration to deliberate on their claim

Stefan Zach, the communications manager of the Austrian EVN Group which owns WTE Ltd,

acknowledges the competence of Dr Duhovnik but prefers not to comment his findings.

“We will present our objections to Duhovnik’s report before the arbitration court in Geneva” replied Zach to CIN-CG/BIRN/*Monitor*.

Speaking of allegations for corruption and the facility’s poor quality, Mr Zach points out that “prosecutors checked the company and the plant several times and didn’t find anything against WTE despite numerous public accusations”. He further says that “the facility does work” and that “WTE has done a good job”. However, he admits that the facilities in Jaz and Buljarica were not built “because the municipal authorities sold the land for construction of hotels”. This is

vehemently denied by the former mayor Krapovic who says that “it is very easy to check and find the opposite”.

Krapovic also stresses the problem of management costs of €1.7 million per year (as defined by the DBFO contract) which the Germans charged for since July 2014 and expected to be paid in full.

“We told them that we were not going to pay the management costs for the non-existent facilities in Jaz and Buljarica. Then Schutte offered me to lower the price from €1.7 to €1.2 million, given that we make a deal on some other (controversial) points” says Krapovic.

Hubertus Schutte succeeded Guenter Faust

The SPO says “inquiries still under way”

When asked by CIN-CG/BIRN/*Monitor* about the affair with the water treatment plant, the Special Prosecution Office (SPO) sent a scant reply after much waiting saying that “plea agreements were concluded with the accused Svetozar Marovic and Dragoljub Milanovic..., after which the plea bargains were confirmed by the High Court in Podgorica, and this resulted in the return of illegal gain to the Municipality of Budva amounting to €1,096,481.39”. The SPO also stated that it was still “conducting necessary inquiries”.

The municipality denies that the money has been returned, and the previous mayor Mr Krapovic says that the sum mentioned by the SPO has nothing to do with the WTE plant but with the *Copyright* case, in which the Municipality of Budva was defrauded of €3.86 million through a series of fictional contracts regarding promotional marketing of the city and the induced court settlement. Moreover, the aforementioned Milanovic also had no part in the WTE scheming. He was the executive director of *Gugi Komerc* and involved in the affair related to the paving of the plateau on Jaz Beach, where the mega-concerts of the Rolling Stones and Madonna were held.

Krapovic’s allegation is confirmed by the plea agreements published on the SPO’s website. Svetozar Marovic, under item “d” (one of a total of five criminal offences) was convicted of abuse of office by means of incitement to commit crimes in an organised manner in the case of the WTE plant. For the criminal offences a, b, c and d in the plea agreement, as the architect and head of multimillion-euro theft, he received a sentence of one year in prison in total. Thus it turns that he got three months per offence. Marovic undertook to return €1,096,481.39 of illegal gain which his criminal organisation had made, but this was for point “c” of the plea agreement for the *Copyright* affair.

The Special Prosecution, according to the agreement signed with Marovic on 9 June 2016, did not require him to return the €3 million. Neither did the High Court, which adopted the agreement in an unamended form.

The Municipality’s attorney Vladan Bojic, states in his interview with CIN-CG/BIRN/*Monitor* that the behaviour of the judiciary in this case is unheard of. “If you hold up a kiosk and steal a few small items you will get at least six months in jail, while Marovic stole millions. Many citizens would agree to serve three months in prison, not for €3 million, but for €300 thousand or even for €30 thousand” said Bojic.

For item “e” of this agreement, Marovic received another 12 months for fraud (later reduced to 10 months). It relates to the case when locals sold land in Kamenovo through his firm *Property Investments* for €7.5 million. By means of a forged signature, that money was used as collateral for a loan with Prva Banka for Marovic’s firm. In the plea agreement signed on 16 May 2016, he received another two years in jail and the obligation to pay a fine of €50,000 for other multimillion thefts. Before this he had spent five months in the pre-trial detention in Spuz. Thus he yet has to serve the remaining 3 years and 5 months of his overall sentence.

Lazar Radjenovic, Stjepan Skocajic and Goran Bojanic also signed plea bargains as members of Marovic’s criminal organisation. Mirko Latinovic and Guenter Faust were granted the status of witnesses-collaborators, thereby avoiding criminal prosecution.

Radjenovic, in a plea bargain concluded on 16 May 2015, admitted two criminal offences, one for the WTE water treatment plant and the other for the *Copyright* case. He was sentenced to a total of six months, or three months per offence, the same what his criminal boss Marovic got.

Goran Bojanic and Stjepan Skocajic were each sentenced to six months in prison, twice as much as their “inciter” and criminal boss Marovic.

Skocajic’s firm *Biochem Industries* LLC Budva was convicted, according to the same plea agreement, as a legal entity and ordered to pay a fine of €100,000 suspended for one year. The High Court agreed with this on 12 September 2017.

as the executive of WTE *Wastewater Budva* who left upon discovery of his role in the first €3 million theft.

Budva's Secretariat for Investments told CIN-CG/BIRN/*Monitor* that the projected annual management costs for the plant in Becici amounted to €993 thousand, which is considerably less than €1.7 million invoiced by the Germans.

Stefan Zach says that WTE-EVN claims €77 million in total, which is how much the wastewater project in Becici (Budva) cost them. He denies that WTE tried to charge for the facilities it didn't build (Jaz and Buljarica). "Our principle is to charge for what we have built and not for what might have been" says Mr Zach.

Budva's attorney Vladan Bojic explains in the interview with CIN-CG/BIRN/*Monitor* that "WTE-EVN launched the arbitration in Frankfurt at the end of 2019 over the guarantee signed by Kuljaca (Budva's former DPS mayor). Just the fees, administrative costs, motions and other preparations before the hearing in February will cost the city half a million US dollars. The arbitration in Frankfurt may eventually cost us between \$1.5 and \$2 million. They also launched the arbitration in Geneva over alleged breach of DBFO contract, just in case they fail in Frankfurt".

CIN-CG/BIRN/*Monitor* asked Montenegro's President Djukanovic whether he took any measures, since at the time he was Prime Minister, to ensure that WTE completes the investment in accordance with the contract given the lodged guarantee of €29.3 million. The President's press service contacted the Ministry of Finance and sent us its reply. It says that "since the payment of the said guarantee, the government has not followed developments about the WTE project in Budva Municipality". The statement further says that efforts are made to resolve the question of municipal debt to the national government as a consequence of the payment it had made.

"Now the project and its follow-up is a matter of the parties thereto from the start and onwards. So the Municipality and WTE should reconsider and agree on all the aspects of cooperation" recommends the Ministry of Finance.

When the then Prime Minister Djukanovic cut the ribbon on 2 October 2014 he pointed out that the new facility would make the marine resources of Budva and Montenegro "cleaner, better and richer". On behalf of the German company its director Franc Mittermeier stressed that the plant was constructed "in accordance with international standards".

However, the ceremony was clouded by the facts that the plant in Becici (meant to serve the population of up to 90 thousand) was only one part of the agreed project. The facility lacked the certificate of occupancy which arrived half a year later for only a quarter of the building. The

documentation was incomplete and the facility was not entirely registered in the cadastre.

Six years on and the sea on the coasts of Budva is still away from "better and cleaner". Spanish *Iberostar Bellevue* hotel told CIN-CG/BIRN/*Monitor* that it pressed charges in court against WTE following the incident in July 2019 when sewage was directly discharged for 24 hours into the sea between two 5-star hotels in Becici. *Iberostar* demands €1 million compensation and complains that WTE wouldn't take calls from the hotel, let alone do something to stop the spilling. Occasionally the stench from the plant still pervades its vicinity and descends to the hotels on the shore. The semi-solid sludge which remains after the sewage treatment is not treated itself as that was never envisaged by the original contract. CIN-CG earlier reported that the sludge is taken to Albania and offloaded in wild waste dumps. The floating oil and grease from the facility occasionally stained the sea in Budva and Becici last summer. The problem is solved by the instalment of a new reduction gearbox in the plant – and paid by the city again.

Petrovac, Jaz, Buljarica and Sveti Stefan still discharge their untreated sewage into the open sea which the sea currents and winds send back to the coast.

Jovo MARTINOVIĆ



EXPERTS WARN THAT THE ADRIATIC IS
BECOMING A DUMPING GROUND FOR
DANGEROUS WASTE:
LESS FISH, MORE PLASTIC

SEVEN OUT OF 10 FISH FROM THE ADRIATIC CONTAIN PLASTIC! FOR PRECISELY THIS REASON, THE ADRIATIC HAS BEEN PROCLAIMED ONE OF EUROPE'S THREE MOST POLLUTED SEAS, WHICH COULD ALSO HAVE FAR-REACHING CONSEQUENCES FOR THE ECONOMIES OF THE SIX COUNTRIES THIS SEA SPLASHES AGAINST. POLLUTION FROM THIS MATERIAL IS THE GREATEST THREAT TO BIODIVERSITY ON THE PLANET AFTER CLIMATE CHANGES.

Ivo Knežević, a fisherman from Ulcinj, says he is often astonished by the quantity of waste he sees on the open sea, several kilometres from the mouth of the River Bojana.

“Earlier we witnessed the fact that there would be various types of waste after a strong southerly wind. But, that is not a case anymore. The plastic is everywhere now” he points out.

The situation deteriorates with the first autumn rains, when the brooks and streams start flowing again and bring down waste discarded in dried-up watercourses. When a supermarket carrier bag or plastic bottle is not thrown into a trash can, trouble starts for those who live next to the sea and from it.

“We end up eating any plastic bag that is not thrown away properly. In other words, we are killing ourselves,” Knežević claims in an interview for the *Centre for Investigative Journalism*, BIRN and *Monitor* (CIN-CG/BIRN/Monitor).

Divers in Ulcinj also say that it is getting more and more difficult to distinguish the seafloor from a landfill site.

“There is hardly a single place on our seafloor where I haven’t seen discarded trash. There are piles of plastic bottles, cans, chairs and even wheel rims from trucks,” **Adi Karamanaga**, the famous diver from Ulcinj, says for CIN-CG/BIRN/Monitor.

He is convinced that this issue is more serious every day, while the fish stock is ever smaller: “I don’t think there is a single organism in the sea any more that has not been in contact with plastic. All this is dangerously undermining Montenegro’s reputation as a beautiful tourist destination and our sea as a source of quality fishery products, endangering us and our local communities which crucially depend on the sea,” Karamanaga adds.

Local and foreign waste

Precisely because of the quantity of plastic in it, an international team of experts, in a study published in the journal *Marine Pollution Bulletin*, declared the Adriatic one of Europe’s three most polluted seas (after the north-eastern part of the Mediterranean and the Celtic Sea). Waste is generated by around four million people who live along the Adriatic Coast, and that number increases during the tourist season almost six times.

Of the waste that finishes up in the Mediterranean, the highest amount per capita is generated from Montenegro! As much as eight kilograms per year, according to the data from the *International Union for Conservation of Nature* (IUCN).

The environmental activist **Azra Vuković** states that 80–90% of waste in the Adriatic is

made up of plastic.

“Usage period of disposable plastic is 20 minutes, while much longer is necessary for it to biodegrade, if that happens at all. It primarily includes carrier bags, cups, bottles, cigarette butts, fishing nets and plastic cutlery which make their way to the water in various ways, creating a major problem for the organisms that live in the sea, but also for those on the land,” Vuković says for CIN-CG/BIRN/Monitor.

Judging by the packaging, most of the waste comes from Albania, along the River Bojana. There is also a lot of waste from Montenegro, because the Bojana flows out of Lake Skadar, most of which belongs to Montenegro. Every resident of Montenegro, according to the data of the organisation *Zero Waste Montenegro*, on average uses up and throws away more than 600 non-recyclable plastic bags a year, which then end up in nature or in landfills.

“Just in the hinterland of the Long Beach (Velika plaža), 22 illegal landfills have been mapped on which, apart from construction and bulky waste, the plastic was also found. This threatens to cause lasting damage to the development of tourism on the Ulcinj Riviera,” Vuković says.

Even though the sea is an exceptionally precious resource, Montenegro does not have a worked-out model of monitoring and disposing of the waste in the sea. In the European Commission’s most recent report on Montenegro, managing waste was assessed as an area in which no progress has been made.

Pavle Radulović, the Minister of Sustainable Development and Tourism, who has in the meantime resigned and left the government because of a corruption scandal in his inspection department, announced with fanfares a ban on the use of plastic bags. Meanwhile, this Ministry has announced that the drafting of a new state plan for managing waste for the period until 2026 will happen only next year. The adoption of the new *Law on Waste Management* has been announced since the beginning of this year. This should have been an obligation of the new government and parliament, just as, for example, the Croatian Assembly adopted a series of conclusions on micro plastics in the environment last year.

Montenegro has committed itself, within Chapter 27, to recycling 50% of its plastic, paper, metal and glass waste. The state intends to guarantee recycling of at least 70% of non-hazardous construction waste, in order to fulfil the closing benchmarks within the most demanding European chapter. This is stated in the *Draft Action Plan for Fulfilling the Closing Benchmarks in Chapter 27 –Environment and Climate Change*, which was subject to public debate until the end of August. Montenegro is supposed to fulfil these

benchmarks by 31 December 2030.

“In the last few years, pollution from plastic waste has become more and more present, which creates extra pressure on the marine ecosystem,” it was stated in the last publicly announced annual *Report of the Environmental Protection Agency of Montenegro* for 2018. Along with the *Ministry of Sustainable Development and Tourism* and the *Public Company for Management of Marine Assets*, coastal local governments and the *Administration for Inspection Affairs*, the Agency is most responsible for the current state in the Montenegrin Sea and surrounding area.

Waste dump on the seafloor

Research carried out by scientists from countries bordering the Adriatic and Ionian Seas (Slovenia, Italy, Croatia, Albania, Bosnia and Herzegovina, Montenegro and Greece) within the project WELCOME (“*WatEr LandsCapes sustainability through reuse of Marine litter*”), which is financed from European Union (EU) funds, has shown that there are on average 670 pieces of plastic per square kilometre in the Adriatic, which is considered a relatively high density of waste.

As many as 90% of the items from waste have been made from artificial materials. Analysis of one ton of the waste found on the beaches and in the sea shows that somewhat more than half of it is composed of plastic, 30% is wood, 10% metal and 6% textiles.

“Marine debris represent one of the biggest threats to the Mediterranean marine ecosystem with environmental, economic, security, health and cultural effects,” **Dr Milica Mandić**, a senior

scientific collaborator at the *Institute of Marine Biology* in Kotor told CIN-CG/BIRN/Monitor.

She reminded that the Adriatic Sea is a semi-closed basin with weak currents and long retention of water masses which make it vulnerable to persistent pollution and stressed that the very unique and only partially protected area of the Bay of Kotor is particularly threatened.

“Those most at fault for what is found in it are the local population, tourists and, partly, inadequate waste management on the land. About 80% of the waste which is located beneath the surface of the sea in the Bay of Kotor originates from the land. Estimates are that in the area of the Bay of Kotor there are 160–250 kilograms of waste per square kilometre, and in the area of the open sea of the Montenegrin coast between 40 and 80 kilograms,” Mandić says.

She claims that the waste on the beaches is only the “tip of the iceberg” compared to the quantity that lies beneath the surface of the sea.

Dr Pero Tutman, an expert from the *Institute of Oceanography and Fisheries* from Split, says for CIN-CG/BIRN/Monitor that around 70% of waste from the land which finds its way into the sea ends up on the seabed and has been piling up there for years out of human reach.

“These quantities are increasing every year and even though the exact amount is not known they are certainly worrying. The effect on marine organisms is mainly through entanglement (for example, lost fishing tackle, plastic bags etc.), after which they ingest it and then waste reach into their digestive system. Larger marine organisms, such as mammals (seals, dolphins and whales) and turtles, and then sea birds are particularly exposed to this,” Dr Tutman emphasises.

THE CENTRE FOR THE PROTECTION AND RESEARCH OF BIRDS: THE USE OF CARRIER BAGS TO BE BANNED

“Waste and plastic do not only affect people and they are not exclusively an issue of visual destruction of nature. Very often birds feed their chicks with microplastics, which not even marine mammals are immune to,” it is stated in a declaration by the *Centre for the Protection and Research of Birds*, whose activists have called on citizens to sign a petition for a ban on plastic bags. So far, 6,439 signatures have been gathered.

The *Martin Schneider Jacoby Association* has this year organised a series of operations to clear up Ulcinj’s beaches, Salina and the Pine Forest.

“Our volunteers came across the whole plastic waste landfills. We had expected a bad situation but not so many layers of deposited plastic waste, which the rain had covered over with soil, that we were almost falling through plastic while cleaning,” **Zenepa Lika**, the president of the association, said.

Bearing in mind the fact that the best results have been achieved by education, the *Ulcinj Rotary Club* has recently implemented the project *Zero Waste Promotion*.

A member of that organisation **Boris Marđonović** said for CIN-CG/BIRN/Monitor that implementation of this project was financially supported by a group of tourists from Norway who spent the last summer in the Ulcinj Riviera for the first time. They were enchanted by the beauty of the city.

“But when they saw the amount of the plastic waste, they decided to launch a project through the *Rotary Club* insisting that kindergarten-age children be primarily involved in it.” According to Marđonović “solving this problem is an indicator of our development as a civilised society;”

WE EAT A CREDIT CARD EVERY WEEK

At a global level, since 1900 about eight billion tons of plastic have been produced. Half of that quantity has been produced in the last 13 years. An alarming warning was sent from the United Nations Environment Assembly, which was held last year in Nairobi – the world's seas and oceans are in a "plastic crisis".

"By the middle of this century, 99% of sea birds will be poisoned by plastic, and even now more than a million are dying because of it," Peter Malvik from the UN's Environmental Programme said.

This institution states that every week we eat the quantity of plastic contained in a credit card, while the *Ellen MacArthur Foundation* warns that by 2050 there will be more plastic in the sea than fish.

The European Commission passed the *European Strategy for Plastic in a Circular Economy* in January 2018. Last year in June, a directive was adopted whereby new rules are stipulated for reducing and limiting the use of single-use plastic products, plastic cutlery, straws, earplugs etc. Member states are obligated to incorporate this into their national legislation by 2021. Besides preventing and reducing the effect of single-use plastic products, the aim is to move to other products and material in a sustainable way.

The smaller the plastic, the bigger the problems

Plastic in the sea never disappears – it just breaks down into smaller pieces and enters into every sphere of the environment. Microplastics (plastic particles smaller than five millimetres) are found in all species of marine organisms. The problem with microplastics is that larger amounts of heavy metals, viruses and bacteria can also be absorbed into them.

This problem in the Adriatic was first detected during the implementation of the project *DeFishGear*. It was discovered that there were pieces of microplastic in the stomachs of seven out of 10 fish in our sea! So, we are consuming not only Adriatic specialities but plastic as well.

Research studies have shown that particles of plastic in the heart and human brain correlate with a risk from brain cancer and exposure of animals to plastic can lead to inflammation, infertility and carcinomas.

In the Kotor-based institute, research has also been carried out which was based on analyses of the contents of the stomachs of five different commercially important species of fish: sardines, horse mackerel, chub mackerel, mullet and sole.

"Pieces of microplastics more than five millimetres big were found in all the mentioned

species, in greater or lesser quantities. Of the overall 235 samples analysed, microplastics were found in a quarter," Dr Mandić said.

Carrier bags a "delicacy" for sea turtles

One of the most threatened species in the Adriatic is the sea turtle. Recent research published in the journal *Current Biology* has shown that, to turtles plastic bags smell like a tasty delicacy because of the bacteria and algae that accumulate on them. The scientists offered turtles several types of smells. Almost all the turtles reacted identically to the smell of food and the smell of a nylon bag which had been previously submerged in water, this journal reports.

"Research carried out until 2011 showed that, of the 54 dead loggerhead sea turtles (the dominant species of turtle in the Adriatic), waste was found in the digestive systems of 35% of them. The more there is of this waste, unfortunately the more sea turtles are threatened," Dr Tutman says.

One of the most threatened and largest species of sea turtles in the world, which very rarely comes as far as the Adriatic, the leatherback turtle (*Dermochelys coriacea*), entangled a few years ago in a fishing net near Valdanos, but it was saved by a patrol officer of the Municipality of Ulcinj **Hajrudin-Dino Šata**.

Sea turtles perform so-called bioturbation, causing the mixing of sediment and the circulation of nutrients, thereby influencing preservation of the stability of the complex marine ecosystem.

Plastic waste on the beaches

The *Public Company for Management of Marine Assets*, which often organises beach clearing actions, told CIN-CG/BIRN/Monitor that, according to published analyses, the dominant waste is plastic packaging.

"On all beaches it has been determined that the biggest problem is plastic waste, which makes up more than 60% of total amount, in terms of both number and weight. The most common waste was cigarette butts and filters. Then come pieces of plastic 2.5–50 cm large, plastic packaging, plastic foil, sweet and food wrappers, as well as plastic bottle caps and lids," Dr Mandić said.

Marine Assets announced that the Montenegrin government is preparing a monitoring programme, which includes waste in the sea, "all with the aim of improving the environment of the Adriatic Sea".

"The new legal regulations must provide significant improvement and greater efficiency of the local businesses which are responsible for collecting and disposing of waste, but also development of mechanisms in Montenegro for recycling plastic, glass, metal and other packaging,

as well as mechanisms for monitoring and reducing waste in production, such as the ban on single-use plastic products. This will all contribute to a reduction of the waste on the beaches and other public areas," **Miljan Živković**, from the *Public Company for Management of Marine Assets*, said for CIN-ČG/BIRN/Monitor.

However, dr Mandić considers the situation fairly worrying, "especially bearing in mind the fact that not much is being done on solving the problem, that there are no legal regulations dealing with the issue of marine debris, but also that there are not sufficient national funds for fundamental scientific research which would deal with the problem of the effect of the accumulation and transfer of waste on the health of marine organisms, and consequently also on humans."

Given that marine debris crosses national borders and that, depending on the currents and winds, it can travel a significant distance in a short time, Dr Tutman says it is necessary to discuss this problem and its solution and work in coordination with the other countries "with which we share the Adriatic Sea".

The environment ministries of Croatia, Montenegro and Albania agreed in Dubrovnik at the beginning of 2018 to "firm up cooperation and make use of the available European funds with the aim of solving the problems with marine debris in the Adriatic Sea".

However, in the last two years, little of that has actually been done. The results within the common agreements and initiatives, such as the Joint Commission for the Protection of *the Adriatic Sea and Coastal Areas*, the *Adriatic Trilateral* and the *EU Strategy for the Adriatic-Ionian Region* are still not visible.

Mustafa CANKA



DECISION TO BUILD HYDROPOWER PLANT KOMARNICA RAISED THE DUST

GEOLOGISTS WARN OF THE QUALITY OF THE SOIL, AND ECOLOGISTS WARN OF THE ENVIRONMENTAL DEGRADATION AND PROTECTED SPECIES, ENERGY SPECIALISTS DOUBT THE JUSTIFICATION AND DEADLINES FOR CONSTRUCTION, WHILE LOCALS ANNOUNCE RESISTANCE. ONLY THE GOVERNMENT IS DETERMINED TO BUILD THE HYDROPOWER PLANT

The old man scratched his head while watching the concrete giant between the two hills.

“Comrade Blazo, what is this going to be?” he asked the then President of Montenegro, who came to the construction site.

Blazo Jovanovic drew him a communist calculation: “a dam, electrification plus industrialization equal to socialism, and a little more to the left...”

“But water has never been collected here. It is sinking...”

“It will be collected, even if the entire Niksic field is covered with copper,” the famous hero replied.

“That’s right,” said the peasant in a conciliatory tone.

But there was no copper, no water, so the hydropower plant in Ozrinici, which was never put in operation, testifies for seven decades about the time when dreams defied the odds.

On the occasion of the decision to build the Komarnica hydroelectric power plant, some also recalled the Ozrinic legend. One of the most important warnings that the parliamentary majority in the Montenegrin parliament ignored and adopted the Detailed Spatial Plan (DSP) for the new artificial lake comes from geologists. Earlier research suggests a fault that could make the water lose its stream.

Two more major arguments can endanger this large investment - environmental and energy: the destruction of untouched nature and endangering biodiversity, the problematic deadline for construction, and return on investment...

Residents of Piva and Savnik municipalities in a conversation with the Center for Investigative Journalism of Montenegro (CIN-CG) announced great resistance to the construction of a hydropower plant that could flood clear rivers, whose bottoms are visible from several hundred meters high surrounding hills.

The DSP points out that this HPP will flood the Pridvorica canyon and part of the Komarnica canyon while preserving the most attractive Nevidio canyon.

„In addition to the river ecosystem, which will be completely modified in the length of 13.7 km i.e. 16.7 km upstream of the dam facility, the surrounding terrestrial ecosystems, and habitats, up to 811 meters above sea level, will also be destroyed due to immersion”, it is also stated in the document.

It is estimated that HPPs Komarnica will produce 231.8 gigawatt-hours per year. The estimated value of the 168 megawatt-hour power plant is 246.53m euros. In the Government’s third COVID-19 socio-economic package of support, 102.9 million euros are included, which the Electric Power Industry of Montenegro (EPCG), as a

concessionaire, will invest in this HPP by 2024. The total amount of investment with projects and analyzes is 272.2 million euros, so at least one more partner has to be found.

The warnings of the geological engineer and MP Strahinja Bulajic and his colleague Srdjan Milic, that the geotechnical conditions for the construction of the dam were not met, were ignored by the ruling majority.

Bulajic warned of the geological study from 2011, which requires additional research.

“In the left abutment of the dam, there is a fault zone a kilometer to a kilometer and a half long, 15 meters wide, which is empty. That speaks a lot to geologists, hydrogeologists, especially engineering geologists. There was a plan to rotate the dam by five, six degrees... What does that solve? In the engineering-geological sense, maybe something, in the hydrogeological sense, nothing at all,” Bulajic said.

Milic also pointed out that the terrain and water permeability of the dam had not been examined.

“The government says that they have preserved the Nevidio canyon. It doesn’t matter what they are trying to preserve if they don’t know the water permeability at the dam site”, Milic said.

The head of the Directorate for Development and Engineering of EPCG, Ivan Mrvaljevic, is referring to a new design solution and geophysical research carried out in February this year.

“The designer has now optimized the disposition of the dam in a certain way, he has moved it by some 30 meters. As provided by the Law on Geological Research, after the completion of the procedure for the adoption of a detailed spatial plan, additional research in September will be conducted. With these additional geological researches, both according to ours and the expectations of the expert team of designers, there will be no problems with that left abutment”, Mrvaljevic emphasized for CIN-CG.

Inaccessible to alpinists as well

Part of the area to be flooded could not be examined due to inaccessibility, but Professor Danilo Mrdak, author of the Strategic Impact Assessment (SIA), which preceded the planning document, told CIN-CG that the area was sufficiently explored.

“Complete research of this kind of terrain would require an incredible logistics and mountaineering team to constantly be with the researchers. And then we would probably not discover anything more than what we know now, but we would be sure of what we are losing”, Mrdak said.

For the ecologist from the NGO “KOD” Vuk Ikovic, the authors of the SIA approved the

construction by recommending the removal of Komarnica from the areas of the Ecological network (EMERALD).

“The document whose task is to reconsider the long-term impact of the hydroelectric power plant on people and nature, in no way oppose to the intentions of investors but what’s more, it supports the absolute conversion of space,” Ikovic told CIN-CG.

According to Ikovic, the construction of hydroelectric power plants on protected rivers is not a development, because it causes their disappearance. He also believes that it is not justified to “destroy something that nature has created for millions of years for the projected 10 million euros of income per year, which we can earn in other ways while keeping the river free and untouched.”

“We will lose many springs, waterfalls, cascades, rapids, high rocks, and natural wells. The flooding of Komarnica would mean the disappearance of 305 hectares of protective and commercial forests. The specific area is inhabited by species that are closely related only to living conditions that will mostly disappear by flooding the canyon. It expresses a certain degree of endemism that has not been sufficiently researched. It is not excluded that certain species of plants or animals are found only in the Komarnica canyon and nowhere else in the world”, Ikovic said.

The Environmental Protection Agency told CIN-CG that they do not have a list of protected animal and plant species in the area of Komarnica.

Helena Hudek, a Ph.D. student at the German Federal Environment Foundation, who researched Komarnica, says that the last part of the river where the original invertebrate fauna is still preserved is at the place where the hydro accumulation is planned.

“As an example, I will state a species from the order Ephemeroptera *Epeorus yugoslavicus*. This species is quite rare and endangered in the Western Balkans,” Hudek told CIN-CG.

Information on the status of the Emerald area from 2015, conducted by the Ministry of Sustainable Development and Tourism, states that Komarnica is also on the list. “These areas represent potential NATURA 2000 sites - ecological networks of importance to Europe,” the document states.

Although the DSP notes that the Emerald has not yet been declared an official network of protected areas, it is “of great ecological importance for the identified endangered species and habitat types protected by the Berne Convention”.

The following species are under the water: oak forests, coastal willows, daffodils, *Corylus colurna*, *Acer intermedium*, mountain maple...

The SIA also stated that there will be a permanent loss of the Dubrovska Vrela spring, as well as significant turbidity downstream from the dam and that this will be best reflected in Piva Lake.

Without disputing the bad effects of the future accumulation, Professor Mrdak, however, says that if he could choose between it and numerous mini hydroelectric power plants, he would decide for Komarnica. This, he says, would save a large number of streams that have the function of feeding rivers, such as alluvium in the lungs.

Pippa Gallop, Bankwatch Southeast Europe energy advisor, with a specialization in coal and hydropower in the Western Balkans, told CIN-CG that “it is not possible to eliminate the possibility of declaring the area Emerald or Natura 2000 due to the potential construction of hydropower plant.”

“Bulgaria has been negotiating with the European Commission for years because of such attempts to remove valuable sites from the list proposed for Natura 2000 because they wanted to build ski resorts and other facilities. However, the plan failed and now there is a relatively large area under the protection of Natura 2000”, Gallop pointed out.

Gallop: Ten years is the real period for building a hydropower plant

EPCG estimates that the HPP on Komarnica will start operating in 2026. Draft project is planned to be done by the end of the year, while the drafting of the major project will start next year.

Pippa Gallop on the other hand claims it is unrealistic before 2030.

“For such large projects, especially for countries like Montenegro, it is ambitious to say that they will be ready in less than ten years, without a major project,” Gallop said.

Mrvaljevic pointed out that the EPCG intends to find a contractor whose job will be the development of the main project, fabrication, delivery, and installation of equipment and construction works.

“All in one, the so-called EPC approach, as usual, is done with large mega projects in energy and infrastructure”, Mrvaljevic said.

Energy consultant Momir Skopelja thinks that it is difficult to say whether “Montenegro needs HPP Komarnica from the energy aspect”

“If there were no ongoing procedures for the implementation of several electricity projects (the solar power plant of 250 MW, wind farm Gvozd with just over 50 MW, another wind farm above Budva, several new small hydropower plants, reconstruction of TPP Pljevlja), I would say it is necessary. Even if we take into account that

numerous facilities will be built, I could not say that it is not necessary, but rather that its position is inappropriate," Skopelja said.

Unlike him, Gallop believes that the HPP on Komarnica is not needed, especially when the devastation of natural resources is taken into account.

"I think that Montenegro does not need additional hydropower plants, but to work on increasing the share of solar panels and wind farms, as well as reducing losses in the distribution and use of electricity for heating. How much and when additional production capacity is needed depends on when The Aluminium Plant Podgorica (KAP) and TPP Pljevlja will be closed", Gallop said.

For Skopelja, the forecast consumption is unrealistic, and the methodology is problematic. He believes that the scope and quality of the published cost-effectiveness analysis of HPP Komarnica do not meet the needs of such a project.

"Electricity consumption in Montenegro of 5791-gigawatt hours in 2025 is included, and it is known that in 2019 it amounted to 3,482.82 gigawatt-hours. It is unclear on what basis the increase of 66.3 percent in six years is calculated, which is an increase of about 10 percent per year. It gives a distorted picture that Montenegro will need energy from all production capacities for which approvals have been given for construction in the coming period," Skopelja told CIN-CG.

It is unclear to him "why among so many energy exchanges, data were taken from the European Energy Exchange (EEX) in Hungary when EPCG does not operate there".

"Maybe because it is the most expensive stock exchange, so such data result in the best indicators for HPP Komarnica? It is difficult to talk about the electricity price action in 10 or 15 years, but in that table, the wrong price of 52 euros per megawatt-hour has been entered for this year, when EPCG sells most of it just over 42 euros", Skopelja says.

Gallop pointed out that no one can predict the prices of electricity in the future, because the current trends in the EU do not have continuous growth. Therefore, a risk analysis should be done in case the prices are the same or lower. She claims that the current priority of the energy system should be the losses in the distribution network, which were 13.83 percent in Montenegro in 2018, and between 2.1 and 9 percent in the EU.

With the third package, the Government announced that CEDIS will allocate 170 million euros for the reconstruction of the network by 2024.

"The National Energy and Climate Plan (NECP) which will provide an updated overview of electricity production and consumption and forecasts for the future is being developed. We

should wait for that document before deciding whether HPP Komarnica is still relevant or not", Gallop said. She points out that "Montenegro already produces a large percentage of electricity from HPPs, between 40 and 60 percent of domestic production."

EPCG reminds us of the Regional Strategy for Sustainable Hydropower in the Western Balkans, which states that there are no serious obstacles to the construction of HPP Komarnica.

"The document made with the support of the Western Balkans Fund is in line with all EU regulations, and Komarnica is recognized as a project that belongs to a group where there are no significant issues and challenges from the environmental aspect," Mrvaljevic said.

Gallop believes that the EC did not give the green light, because in the summary of the mentioned study it is written that it cannot be considered in any way to reflect the views of the EU and that the list of 45 projects does not indicate which hydropower project should be built.

"All hydropower projects on this list (and all future hydropower projects) should be subject to further exploration of technical, financial, social and environmental opportunities, as well as a further selection of Natura 2000 sites and non-zones by the World Bank to ensure that the projects are being implemented with minimal impact", Gallop quotes a part of the document.

Mrvaljević also refers to the document Analysis of the fair transition of the energy sector - Green Plan for Pljevlja, which was made by the NGO Green Home.

"It is stated that the construction of HPP Komarnica is a realistic solution which, while respecting the highest environmental standards, can be one of the key decisions of Montenegro in the direction of providing a solution acceptable to global climate change," Mrvaljevic says. The NGO "Green Home" told CIN-CG that due to overwork, they cannot provide an interlocutor on the construction of HPP Komarnica.

Residents of Piva and Savnik, despite the public debate that will end soon, say that they have not yet had the last word.

Locals: It is not going to happen

Residents of this area are resisting the planned construction of a hydroelectric power plant on the Komarnica River.

Velizar Kasalica, who lives near the river, told CIN-CG that he will not allow the untouched natural flow to be destroyed and that he does not believe that everything will go according to plan even if the HPP is built.

"We all know that there will be torrents, erosion, and floods. Let's take the proposed elevation of 811 above sea level, where they

guarantee that the Nevidio canyon and Savnik will not be flooded. Who can predict the situation when the heavy precipitation falls from Durmitor”, Kasalica said.

Darko Stijepović, from the NGO Center for Development of Durmitor, points out that only investors will benefit. He believes that tourist valorization can bring more benefits and money.

“If we analyze the tourist visits to the natural resources in the area, we see that the proper tourist valorization of Komarnica can bring large sums of money. These are our natural beauties, water, land, air, and that should be used by the investor, who will produce electricity and sell it to us. They are planning to sell us something that is already ours”, Stijepović says.

He emphasizes that there are only five such canyons in Southeast Europe: the Neretva canyon, Komarnica, Piva, Moraca, and Tara.

“The Swedes and the Italians flooded all their rivers. That is why we can offer them what they do not have because their citizens have never seen a free river, it is an attraction for them”, Stijepovic said.

He announced more intense protests so that the HPP on Komarnica would not be built.

Long-time consultant and expert on tourism and sustainable development, Kirsi Hyvaerinen from Finland, who lives in Savnik, is also against the construction of HPPs and for the diversification of the tourist offer through rural tourism and agriculture.

She claims that this area with numerous villages is ideal and that it will be more visited after the coronavirus pandemic. She adds that the whole environment would be endangered by the construction of HPPs because, in addition to the top national bike path, there is also “Via Dinarica” and numerous opportunities for canyoning, fly fishing, tourism in the function of nature protection, which pays off:

“Guests who travel to learn more about the aforementioned and enjoy the natural resources pay between 70 and 321 euros a day,” Hyvaerinen says. She recommends that the amount needed to build the HPP should be redirected to the energy efficiency of rural households because thus the Government would invest in every citizen, and not in a handful of privileged individuals.

Novica Gogic, a caterer from Piva, states an example of HPP “Mratinje”, and points out that the population of this area will benefit little from the new power plant, as very few people from this area work in HPP Piva - “maximum ten percent”.

“We would have a short-term financial benefit from the construction, people would come here to eat and sleep, but it’s not all about money. We have to preserve nature for our children”, Gogic said.

Two partnership options

Mrvaljevic claims that the Government will be satisfied that EPCG will be the majority owner of the HPP.

“The first option is to cooperate with the French, Israelis, as majority owners and have a share, for example of 51 or 80 percent, so to take an interest-free or development loan from an international financial organization - the World Bank or German Development Bank,” Mrvaljevic said.

The second option is private-public partnerships.

“I don’t think we will have any problems choosing a partner. As an example, I will mention the German giant Hoyt, who in 2008 was interested in developing a project with us”, Mrvaljevic said.

Ines Mrdović from the NGO Action for Social Justice considers private-public partnership undesirable and in hybrid systems prone to corruption.

“These are projects where the private partner expects extra profit and in which the guarantees of the public partner are always well protected. These guarantees are usually related to the prices of services, and we pay them through the electricity bill”, Mrdovic says.

Alisa HAJDARPAŠIĆ



THE REPUBLIC OF SRPSKA DESPITE NUMEROUS WARNINGS ON VIOLATIONS OF PROCEDURES AND ENVIRONMENTAL DAMAGE PREPARES FOR THE CONSTRUCTION OF HPP “BUK BIJELA”:

THE TEAR OF EUROPE THREATENED AGAIN?

MONTENEGRO HAS NOT PERFORMED GEOLOGICAL MEASUREMENTS FOR EIGHT YEARS TO PRECISELY DETERMINE THE WATER LEVEL ON THE BORDER WITH B&H AND WHETHER THE RIVER TARA WILL BE FLOODED BY THE ARTIFICIAL LAKE. THE ENVIRONMENTAL PERMIT WAS ISSUED BASED ON EIGHT-YEAR-OLD DATA

While the Montenegrin authorities have not determined in eight years whether the artificial lake that would be created by building a dam in the Republika Srpska will spill over into the territory of Montenegro, the construction of HPP “Buk Bijela” is being prepared on the river Drina near Foca.

The Montenegrin Commission for the Assessment of the Environmental Impact Assessment Study pointed out in April 2013 that the projected dam elevation, the normal deceleration of 434 meters above sea level (MASL), and the terrain elevation at the border of 432.37 MASL, clearly indicate that the accumulation of HPP “Buk Bijela” would spill over into the course of the Tara and the territory of Montenegro, which is why additional measurements are needed.

According to the findings of the Center for Investigative Journalism of Montenegro (CIN-CG), they have not been done to date.

Preparations for the construction have not even been slowed down by appeals of courts and international institutions, before which environmentalists from both sides of the border, together with the Montenegrin state, are united, claiming that the rules are being violated and that the construction will harm the environment.

The river Drina is formed by Montenegrin rivers Tara and Piva at the border with Bosnia-Herzegovina, which collects the waters of the rivers of the Black Sea basin up to the river Sava.

The construction of the dam for a 93-megawatt (MW) power plant, for which a foundation stone was laid in early May, will cost about 220m euros and is financed by the power companies of Serbia and the Republic of Srpska (RS).

Serbian Deputy Prime Minister and Minister of Mining and Energy Zorana Mihajlovic said that the facility should be completed in four years, while the Minister of Energy and Mining in the RS Government Petar Djokic announced an increase in the installed capacity to 115 - 120 MW.

After “Buk Bijela”, the construction of two smaller HPPs, Paunci and Foča, is planned, and the entire project is worth about 520 million euros.

The existing impact assessment from 2013, as they point out, was made based on outdated data, which are not relevant to the current situation. The complaints of the Montenegrin state and non-governmental organizations also emphasize that neither the cross-border consultations from 2012 nor those from 2019 were conducted following the provisions of the Convention and that the renewed environmental permit is invalid.

The Implementation Committee of the Espoo Convention in Geneva should decide whether the Republika Srpska has followed the necessary procedures and whether this process has been done following the European rules as well as to

make recommendations. According to the last report of the Committee from May, this issue could be on the agenda at the meeting in February next year, after all the necessary data and clarifications from Montenegro and B&H have been collected.

In May last year, the complaint was filed jointly by the Bosnian NGO Center for the Environment and Resource Aarhus Center and Montenegro’s NGOs Green Home and Ozon. Half a year later, at the initiative of Green Home, the Montenegrin Government joined.

According to CIN-CG’s findings, non-governmental organizations from Bosnia and Montenegro filed a complaint to the European Energy Community (EnCom) against Bosnia and Herzegovina at the end of June, for non-fulfilling of commitments in the construction of these HPPs.

The complaint, which CIN-CG had access to, emphasizes that B&H has violated numerous directives related to energy and environmental protection.

The Aarhus Resource Center also complained to the RS Supreme Court, requesting that the environmental construction permit be revoked, while the B&H Constitutional Court should decide on the request of 24 members of the Federation Parliament, who are requesting the suspension of the project.

Although the Bosnian entity appears not to be interested in this case, and there is no communication between Podgorica and Banja Luka on the project, B&H central authorities also oppose the construction, arguing that the RS cannot make such decisions on its own.

In 2017, the Government of RS and the China National Aero-technology International Engineering Corporation (AVIC) signed the Memorandum of cooperation on the construction of HPP Buk Bijela. Earlier this month, the President of the United States of America, Joe Biden, added this Chinese company to the blacklist of banned companies in that country for security reasons.

The public relations officer at the RS Ministry of Spatial Planning, Construction and Ecology, Gorjana Rosic stated for CIN-CG that there is no need for new assessments because there were no changes in the conditions under which the previous permit from 2013 was issued and that Montenegro was informed about everything.

The use of Piva’s energy began in 1976 with the commissioning of the HPP Piva, with an installed capacity of 342 MW, when it was planned to build two more power plants, “Buk Bijela” and “Komarnica”. They were supposed to be about four times stronger than the current projections.

After the adoption of the Declaration on the Protection of the Tara River in 2004 in the Montenegrin Parliament, which permanently prohibits any interventions or works in the canyon protected as a UNESCO world heritage

site, the joint construction of “Buk Bijela”, which was planned by Montenegro and the Republika Srpska, was abandoned. Now, the construction of smaller HPPs in Gornja Drina in the RS and “Komarnice” and “Kruševa” in Montenegro has been planned.

Suspend construction and conduct a new impact assessment

Nina Kreševljaković, a legal advisor at the Aarhus Resource Center, pointed out that only national authorities and the court have the right to stop the project.

“However, the adoption of complaints by Espoo and EnCom would establish that the Convention and the Treaty were violated by approving the project, and the RS authorities would be obliged to repeat the procedure and prepare a new study, so as not to further violate their international obligations,” she explained.

This NGO is also conducting two proceedings before the Supreme Court of the RS to review the judgments of the Basic Court in Banja Luka, which rejected the lawsuits against environmental permits for HPP Buk Bijela and Foča.

“We expect that the Supreme Court will accept our allegations and make a decision that will annul the disputed verdicts. Unfortunately, the proceedings before the Supreme Court are quite lengthy, so we hope that the final decisions will be made by the end of the year”, Kreševljaković stated.

Her colleague from the Montenegrin NGO Green Home, Natasa Kovacevic, expects that the construction of the HPP will be stopped until all the facts related to possible negative impacts on the environment and biodiversity of Tara are established, which, she reminds, apart from the parliamentary declaration, is protected as a national park, a UNESCO natural heritage and potentially a Natura 2000 site.

In the complaints of non-governmental organizations, it is stated that the development of the project for the construction of HPP “Buk Bijela”, in a smaller capacity, began in 2012 when the environmental impact assessment procedure was conducted. After concluding at the time that the project would not have a significant negative cross-border impact, Montenegro launched cross-border consultations.

“However, further exchange of information between the two sides has not continued. Competent authorities in Montenegro found out that the construction of the project was stopped, while the competent authorities in the Republika Srpska did not subsequently request the official stance of Montenegro, nor did they inform them about the final decisions on the project”, it is stated in the complaint of the NGO sector.

EU: Espoo rules must be respected

When asked about the possible threat to the Tara and the ecosystem, the Delegation of the European Union to Montenegro pointed out that both countries are signatories to the Espoo Convention, and that in the case of the potentially harmful impact of hydropower construction, states must contact the Institution and respect European rules in the process.

This document also points out that the period of validity of the environmental permit is set at five years, and that the investor was obliged to submit a request for renewal of the permit three months before its expiration. However, the request for renewal of the license was submitted 20 days later. In May 2018, the RS Ministry still issued a decision on the renewal of the environmental permit. The verdict of the District Court in Banja Luka in May 2019 confirmed that the Ministry violated the regulations, so the renewed environmental permit was annulled. It is one of the proceedings conducted by the Bosnian Aarhus Center.

It is also stated in the complaints that even though Montenegro has expressed its intention to participate in the new cross-border procedure as a potentially vulnerable party, the RS Ministry has continued the environmental permitting process, without conducting a new environmental impact assessment procedure.

“The obligation to inform and initiate a new environmental impact assessment procedure is inevitable. The period of 7-8 years from the preparation of the Environmental Impact Study of the given plant and the issuance of the environmental permit is unacceptable”, it is pointed out in the complaint of the civil sector to the Board of the Espoo Convention.

It is further explained in the complaint that in the meantime, there have been significant changes - at the location of the project, in the legal framework, but also changes in the basic environmental assumptions.

The complaint concludes that the 2012 impact assessment study, as well as the evidence attached to the 2019 environmental permit application, are based on incomplete and outdated information that does not fully cover the impact on flora and fauna.

The study, published in 2015, also emphasizes the importance of the Drina and its main tributaries, the Lim and the Tara, as the longest

habitat for the endangered trout “hucho hucho”, where as many as 30 percent of the total population of that species lives.

A study conducted by prof. Dr. Stephen Weiss from the University of Graz and prof. Dr. Predrag Simonović from the University of Belgrade concluded that the project of construction of HPP “Buk Bijela” would most likely negatively affect the ecosystem of the Tara River canyon, within the Durmitor National Park.

Tara is recognized as one of the six main habitats for “hucho hucho” trout in the Balkans, and one of the three most important points on the peninsula for endangered fish species in general.

The findings of this study suggest that the Tara Canyon alone can provide very little habitat for spawning and rearing some of the most important fish species, such as juvenile, grayling, trout, and scorpionfish, and therefore fish must migrate out of the canyon to reach suitable hatchery and end their life cycle.

The study was conducted as part of the “Save the Blue Heart of Europe” campaign, launched by international environmental organizations in 2012, to protect the most valuable rivers in the Balkans from the construction of more than 3,000 planned hydropower plants.

The elevation dilemma at the state border

State Secretary for Ecology in the Government of Montenegro Danilo Mrdak also points out that a precise geodetic measurement must be done to determine the exact elevation of the river surface at the border, ie the level of the shore at the mouth of the Tara and the Piva.

He explains that if the elevation of the river bottom at the state border is 432, where the depth of the river is about two meters, then that elevation 434 means that the water reaches the border and will not sink further.

“If it isn’t, then the lake will surely be able to overflow some 100-200 meters,” he explains.

That, he adds, can eventually happen if there are heavy rains when the inflow of water on the dam is greater than it can receive.

“Then there would be an overflow. These are extreme cases, but I certainly do not want to ignore that possibility,” Mrdak said.

He adds that it should have been done earlier, but he claims that it is not too late now, that it is a simple geodetic survey, which lasts two or three days, and that he will initiate it to be done in agreement with the Government.

“To unequivocally determine the elevation that guarantees us that during the maximum water levels of the dam overflow, the lake will not overflow our territory even a meter,” he pointed out.

“If we determine that this is the case, we should try to see by direct communication whether the level of maximum overflow can be lowered by half a meter or a meter. It is best to agree with our neighbors across the border”, Mrdak said.

He explains that whether the power will be 93 or 120 MW does not change anything and does not affect Montenegro.

Mrdak, however, unlike his colleagues who did the mentioned study, says that the artificial lake can only have a good effect on the fish on the Montenegrin territory, and that it will provide them with shelter and salvation and that there will be no more poaching, as has been the case hitherto.

“Fish will come out of there upstream to spawn, that will have a positive effect for us. There may be a larger amount of fish. The best example is Plav Lake, where the entire young population has recovered and they are now coming out to the Lim to spawn. The lake will have a good effect on the fish population upstream, it will negatively affect the downstream, but that is already a matter of their assessment”, Mrdak estimates.

Kreševljaković states that, according to the Environmental Impact Study from 2012, the maximum elevation of the reservoir will be 434

Djukanovic: The construction of HPP will benefit the environment

The President of the Board of Electric Power Company of Montenegro, Milutin Đukanović, told CIN-CG that he fully supports the construction of these hydropower plants in the RS and that he prases the project.

“Anyone who thinks that the construction of these HPPs will harm the Tara River or the environment is not informed about this project. In my opinion, it will only benefit the environment, in the sense that it will make it more beautiful. I think that this project is worthwhile, and the reasons for opposing it can only be political,” Djukanovic said.

He adds that Montenegro is not involved in the construction and that there is no direct benefit from it, but that “Montenegro will construct Komarnica and Krusevo, which will be compatible with this HPP on the Drina, and that from the energy point of view if we work synchronously, everyone would benefit”.

“Electricity must be produced and hydro potentials must be used, of course not at the expense of the environment,” Djukanovic said.

meters above sea level, ie. the same as the normal elevation, while Montenegro claims that the altitude at the international border is 432.37 m.

“This means that the accumulation would still include a part of the territory of Montenegro,” Kreševljaković emphasized.

Nevertheless, she points out that an impact on the Tara River canyon can certainly be expected, especially on the fish in it, because the area around the planned power plant most likely serves as a hatchery and breeding ground for many fish species living in the Tara River canyon.

Natasa Kovacevic says that the construction of the Buk Bijela hydroelectric power plant brings significant water modification and biodiversity degradation in the length of 30 kilometers in B&H, while it is not clearly defined and presented to what extent this impact will be on the territory of Montenegro.

She says that the impacts on Montenegro have not been assessed in terms of possible accidents (large landslides, rockfalls, induced earthquakes caused by water mass, overflow of other hydropower plants, failures) and other cumulative impacts such as climate change, raging waters, etc.

“HPP Buk Bijela will lead to fragmentation of the habitat of juveniles and other endangered fish species, which proves that the construction project of HPP Buk Bijela would most likely harm the ecosystem of the Tara River canyon, within the Durmitor National Park,” Kovacevic said.

Podgorica and Banja Luka play the ‘Chinese whispers’

The complaint of the state of Montenegro to the Espoo Board states that the Republika Srpska did not consult them in the procedure of construction of HPP “Buk Bijela”, thus violating the provisions of the Espoo Convention. They believe that the assessment study must be updated to give a final opinion on the impact of construction on Montenegro.

Rosic, however, estimates that the allegations about incomplete and outdated data on the impact on the flora and fauna of that area are unfounded, because, he says, they were obtained from professional institutions. He says that they have carried out all the necessary procedures and issued a new environmental permit for the current construction in December 2018, following the Law on Environmental Protection.

“Given the fact that the construction of the facility was not started until the application for the environmental permit was submitted, nor were the conditions regarding the location and the project changed, the procedure for issuing a new environmental permit was initiated,” she said.

When applying for the issuance of the

Decisions pending

The RS Supreme Court told CIN-CG that they have not yet made decisions in cases in which a Bosnian NGO is conducting proceedings against the RS Ministry over the issuance of a permit for the construction of the Buk Bijela and Foca HPPs.

The B&H Constitutional Court is also in the process of initiating 24 deputies in that country, asking the court to stop the construction of these dams, because that concession is invalid according to them. After all, such decisions must be made at the level of the Federation, not the entities. The Constitutional Court told CIN-CG that they have not yet decided in that case, nor a temporary measure, which asked to stop the construction.

environmental permit, as he claims, it was proven that the conditions under which the permit was issued in 2013 did not change.

Rosic also emphasizes that, in the procedure conducted in 2012/2013, consultations were held with Montenegro and that the team from the RS accepted to hold a public hearing, but, as they say, the competent authorities from Montenegro canceled it and did never request it again.

“Also, the competent authorities from Montenegro did not submit comments within the deadline, after which the environmental impact assessment procedure was continued following the Law on Environmental Protection. The official position of the competent authorities of Montenegro was not submitted even after the expiration of the deadline,” the RS Ministry emphasizes.

Rosic explains that, as they did not receive the official position of Montenegro, they were not obliged to submit the final decision of the Ministry from the environmental impact assessment procedure.

On the other hand, the Montenegrin Ministry of Ecology, Spatial Planning and Urbanism emphasizes that it is necessary to make a new environmental impact assessment to get an insight into the environmental impacts to Montenegro.

“Studies from 2012 cannot be considered relevant, because they contain outdated data on the state of the environment, and the issuance of a new environmental permit from 2019 is a completely new procedure, which implies conducting cross-border consultations,” the Ministry representative Brankica Cmiljanovic stated.

Cmiljanović explains that based on the

opinion of the Commission for the Evaluation of Environmental Impact Assessment Studies, which was formed in Montenegro, it was stated that HPP Buk Bijela, with the planned elevation of normal deceleration, will enter the territory of Montenegro. It was also pointed out that these studies from 2012 should be updated. After the response of the Committee for the implementation of the Espoo Convention, they will decide what steps to take.

Mitrovic: HPP does not pose a danger to rafting, but it poses a threat to campsites

Environmental activist Milorad Mitrović claims that the disturbance of the microclimate will harm the territory of Montenegro because it is not determined by state borders.

HPP Buk Bijela will have less power and smaller dimensions than previously planned, he explains.

He stated that the cities of Foča and Goražde will be located between two large hydro-accumulations, and it is inevitable that the climate will be disturbed and that it will affect the health of the population and biodiversity.

“It is difficult to predict how and to what extent this will be reflected and what the consequences will be. Significant research of eminent experts should be conducted,” Mitrovic said.

He says that the HPP should not negatively affect rafting in Montenegro, which usually ends at river mouths. However, numerous campsites built from the RS border to the bridge on the river mouth will be endangered.

“People who rafted on both the Tara and the Drina will be deprived of dozens of already built rafting camps. They will be able to raft the Tara to the river mouth and under the dam 10 kilometers from Foča to Gorazde, which means that 50 percent of that territory will be taken away by HPPs “, he explains.

The president of the NGO Breznica is not sure if any disputes can stop this process, “because the RS is behaving like a sovereign and independent state, which disposes of its resources and territory without asking the Federation for permission.”

He states that the laying of the foundation stone and the construction of the foundation for that hydroelectric power plant was done in the early 70s of the last century. At that time, a large part of the land was expropriated, and the construction of roads and numerous bridges and overpasses began, which are only reminders of the intention to build the HPP.

Mitrovic also states that the NGO Breznica came into possession in 2004 of documents made by the Government of the RS and Montenegro regarding the joint construction of HPP Buk Bijela, where Montenegro undertook to submerge

the most attractive part of the Tara in the length of 16 to 18 kilometers to enjoy the right of pre-emption to purchase electricity from that HPP at market prices.

“Breznica” members actively participated in the protest against that construction, after which the Declaration on the Protection of the Tara River was adopted in the Parliament.

Maja BORIČIĆ



SPRING FROM WHICH THE COAST IS
SUPPLIED ENDANGERED BY REMOVAL
OF GRAVEL FROM THE RIVER MORACA:

BOLJE SESTRE ON ITS LAST LEGS

AN 80 PERCENT DROP IN WATER SOURCE YIELDS
COULD HAVE A DIRECT IMPACT ON TOURISM. THE
REGIONAL WATER SUPPLY, WHICH COST 107 MILLION
EUROS, IN ADDITION TO CLIMATE CHANGE, IS IN
DANGER DUE TO THE EXTRACTION OF A HUGE
AMOUNT OF GRAVEL AND THE DEEPENING OF THE
RIVERBED, EXPERTS CLAIM.

The yield of the water spring Bolje sestre, which supplies water to six coastal municipalities for a decade and a half, has been reduced by more than 80 percent, from 2,660 liters per second in 2005 to a historical minimum of only 334 liters per second at the beginning of September last year. This is significantly below the projected water supply capacity of 1,100 liters and represents a serious threat to cause water shortage to the coast during the tourist season.

Due to the drastic drop in yield, the director of the Water Administration, Damir Gutic has suspended work on the regulation of the river Moraca, until the reasons for the shortage of piped water in households on the coast are determined.

The decision was made after years of warnings from the state-owned company Regional Water Supply System, based on expert analysis, that the spring was threatened by the extraction of huge amounts of sand and gravel from the riverbed and coastal area.

According to the data obtained by the Center for Investigative Journalism of Montenegro (CIN-CG), more than one hundred thousand cubic meters of gravel were extracted, through concession works of flow regulations, from the bed of the lower course of the Moraca into Skadar Lake. The concessions were granted to the company "Bemax" to which the decision on suspension of works from December refers. These concessions were previously granted to "Cijevna Komerc" and "Beton gradnja".

Huge quantities of material from the riverbed and the agricultural land on the bank were also extracted by illegal exploiters, whom the inspections generally fail to locate.

The riverbed is deepened considerably below 10.5 meters above the sea level, which is considered the lowest allowed elevation, below which, according to the Regional Water Supply System, the impact on the movement of water leaves consequences on the springs.

The Regional Water Supply System, in which 107 million euros were invested, was put into operation in 2010 when Budva, Kotor, and Tivat were connected to it. A year later, Bar was connected and in 2012, Ulcinj. Since 2013, through the water supply system of Tivat, Herceg Novi received 40-50 liters per second for a part of the municipality, and last year works on the complete connection to the regional water supply have begun.

A long-standing issue of water shortage in coastal cities during the tourist season such as Budva and lasting restrictions in Herceg Novi, which was partly supplied from Croatia, have been regulated by the regional water supply system.

The consumption of 750 liters per second for several days during the peak season was recorded

from this water supply system.

If we take into account a year when the water supply of the spring Bolje sestre was at its ten-year minimum (which was the case in 2020) and a year with a record water supply (at the level of 2019), the challenge of orderly supply of consumers on the Montenegrin coast would be realistic, "Goran Jevric, the director of Regional Water Supply Company (RWSC), told CIN-CG.

According to official data, Montenegro has recorded the best tourist season in history in 2019, with more than 2.6 million tourists, more than 14.5 million overnight stays, and 1.1 billion euros in revenue. More than nine million cubic meters of water were delivered to coastal municipalities that year – somewhere near 5.7 million cubic meters from June to September alone.

However, Jevric rejects the worst-case scenario, according to which the delivery of technical water to coastal cities is the only option. RWSC has contracts with the local water supply systems on the minimum quantity that it has to deliver, and they are additionally supplied from local sources, he says.

The measured yield, as explained in the RWSC, represents the flow values at the overflow, and it is possible to capture larger quantities.

"In the period when, for example, the flow at the overflow was only 334 l / s (September 5, 2020), there was a continuous supply of water to municipalities on the Montenegrin coast of 680 l / s (by lowering the water level in the water intake, it is possible to capture the even higher amount of water than the stated 680 l / s)" RWSC stated.

The representative of the Institute of Hydrometeorology and Seismology Golub Culafic, who analyzed this problem for the needs of RWSC in 2016 and 2018, warned a few years ago about the negative trends of declining yields. According to him, it is necessary to take actions to protect springs, but also "to find a possible additional source as an alternative for the summer months, when consumption is at its peak and recharge in the basin is minimal."

Culafic also pointed out the consequences of climate change, stating that the recharge of karst (limestone) springs, such as Bolje sestre, directly depends on the amount of precipitation, and that projections say that temperatures will rise and precipitation will be less and less. He also emphasized the consequences of the illegal exploitation of sand and gravel on this water source, which has been on the UNESCO map of the 150 most important karst sources since 2017.

"Special attention should be paid to the institutional ban on the exploitation of sand and gravel from the mentioned zone, as well as to provide guidelines for arranging the existing exploitation pits, to prevent artificial alteration of the Moraca in this part, and the possible opening of

Culafic: The locals had to deepen the wells

“We assume that one of the influences on the reduction of the yield regime of the Bolje sestre water source is anthropogenic, i.e. man by his doing. This primarily refers, in this case, to the extraction of gravel and sand (‘regulation’) from the Moraca in the Grbavci zone, which may have led to accelerated water movement (declining levels and/or width of the flow) and reduced recharge of coastal alluvial aquifer, with which the source is probably partly connected”, Golub Culafic told CIN-CG, referring to the results of the latest analysis also, which was recently completed by an international team of experts, of which he was a member.

The analysis states that it is necessary to take measures and activities to adapt to modern climate processes, but also the impact of human activities.

If the clay layer, which was a return barrier for karst water aquifers, was removed by the deepening of the Moraca riverbed, theoretically it could have intersected the underground streams and enabled the outflow of karst waters along the Moraca riverbed, and further reduced the yield of the spring. The smallest depth to the karst aquifer is in the areas where Moraca approaches the limestone rim of the plain, and this is the case in three places: downstream from village Lekici, downstream from Grbavci (slopes of the hill Jez), and upstream from Gornji Vukovici (slopes of the hill Orlovina). At all three locations, the flow was being regulated, or the gravel was being exploited,” Culafic said.

As he said, the residents of the village of Grbavci, who had to deepen the wells on their properties, also testify that the level of groundwater in this area has decreased.

As possible causes of fluctuations and declining yields, especially in the summer months, Culafic also included the use of groundwater from the Zeta plain, pointing out that the largest user is the winery “Plantaze” for irrigation of their agricultural areas. Part of Podgorica is supplied with water from Cemovsko polje and the number of rural households that use groundwater for irrigation is growing.

From the company “Plantaze”, which consumes two million cubic meters of water from 24 pumping wells, from a depth of 50 to 90 meters for irrigation of 2,300 hectares of vineyards and orchards, and regarding earlier similar claims from RWSC, they told CIN-CG that they do not produce consequences, because every liter extracted is returned to the ground.

Pointing out that the explanations from the new analysis are based on numerous assumptions, Culafic estimates that hydrogeological and hydrological research is necessary, which will be conducted in the next period in the narrower and wider zone of the water source.

new sinkholes in limestone.”, Culafic concluded.

Warnings from RWSC on endangering springs, according to the documents CIN-CG had access to, were submitted to the previous Government in reports on the work and plans of the company, which were regularly adopted.

Taking into account the drastic drop in the yield of Bolje sestre spring of about 30 percent in 2020 alone, the regularity of water supply during the 2021 tourist season cannot be guaranteed with certainty.”, the President of the Board of Directors of RWSC, Budimir Saranovic, warned former Deputy Prime Minister and Minister of Agriculture Milutin Simovic, in September last year.

At the session of the Board of Directors held on September 29 last year, the director of the Institute of Hydrometeorology and Seismology, Luka Mitrovic, stated that illegal exploitation around the spring mostly affects the decline in yield, and that, in addition, the displacement of the Moraca riverbed is another cause of such situation.

Dozens of reports submitted by the RWSC to the Sector for Water Management Inspection -

Directorate for Inspection Affairs (DIA), in recent years, due to the exploitation of gravel, were mostly without major results. The employees who have been reporting them also faced threats while recording the actual situation on the ground, they say in this company.

CIN-CG had insight into more than 20 RWSC requests for inspections, addressed to the DIA from 2016 to the end of last year.

For example, in a request dated July 25, 2017, Jevric states that “illegal exploitation seems to be ‘gaining momentum’ again, regardless of the moratorium.”

“In the previous days, construction machinery was noticed at the Mahala locality. Therefore, we forward to you the photographs from the spot with the request for inspection control... ”.

In July 2019, the Board of Directors of RWSC stated that the best evidence of this organized activity is the fact that all machinery is being removed by the arrival of the competent authorities on the spot, and in the late afternoon and evening exploitation continues, as well as during rainy days and holidays, when the activities of inspection bodies are not expected.

“These activities directly affect the Moraca riverbed and legally defined elevations, which should not be lower than 10.5 meters above sea level, while field data indicate that the actual elevations are significantly lower, which indicates a high degree of endangerment of the Bolje sestre spring,” it is stated in the minutes from the meeting of the Board of Directors on July 31, 2019. Other documents state that the elevations of the bottom of the river are lower from two to four meters.

From the Water Administration, they told CIN-CG that it can be said that illegal exploitation from the Moraca riverbed has been significantly lowered and reduced to a minimum. However, the problem of extracting materials from agricultural and non-agricultural land outside the river remains, somewhere even on a kilometer from the river.

Since 2016, according to the DIA, the Water Management Inspection has issued several misdemeanor warrants and filed multiple misdemeanor charges against perpetrators. They point out that one criminal complaint was filed against unidentified persons.

In one of the reports, which was submitted by the water inspector to RWSC on October 5, 2018, it is pointed out that during the inspection in the place called Botun, a yellow-blue “Gisslens” loader (backhoe) without registration marks and a yellow-blue cargo motor vehicle, brand FAP, without registration marks and mounted sieve, were found. At the moment of the inspection, sand from the Moraca riverbed was being sifted.

“Person S.A. was found on the spot, according to whose statement he is the very owner of the machinery. During the on-site inspection, it was determined that it was illegal exploitation of gravel and sand”, it is stated in the report. Against S.A. a request for misdemeanor proceedings was filed, and the machinery was removed in the presence of an inspector.

The DIA, however, points out that a large number of RWSC initiatives were related to the mechanization of contractors, who had signed contracts with the Water Administration on works on the regulation of Moraca, which is performed by “Bemax”.

RWSC Technical Director Ivan Spadijer, at a group meeting with WA representatives on the protection of the Bolje sestre water source a year and a half ago, said that it was not just about climate changes, and “this is supported by the fact that this problem has not been recorded in other springs in Montenegro”. Spadijer also said that they had been protesting since 2014 because of the works on the regulation of the Moraca River because even then they thought that those works could have a negative impact.

Several members of the Board of Directors of

RWSC, at several sessions in 2017, whose records CIN-CG had access to, expressed doubts about the correctness of the river regulation project and pointed out that during the earlier implementation of regulation, the groundwater level lowered about two meters.

A round table on the water source was held in January 2019, which was attended by the directors of RWSC and WA. One of the conclusions of the experts was that the works on the regulation of the river Moraca must be stopped until the moment when it is finally determined whether the exploitation of materials from the riverbed - legal or illegal - affects the yield of the spring.

At the meeting with representatives of RWSC in September of the same year, the director of WA said that if “the main problem of the functioning of RWSC and the yield of the spring Bolje sestre depends on the regulation project, then the problem is easily solved.”

However, he decided to temporarily suspend the regulation work a year and three months later, which was preceded by exchanges of accusations with representatives of the RWSC on responsibility for the situation.

To the dissatisfaction with the cooperation with WA, about which Jevric and Saranovic informed Milutin Simovic in October last year, Gutic responded by assessing that RWSC did not deal with the causes, but only with the consequences of the reduction in yield. He

IZDAŠNOST VODOIZVORIŠTA BOLJE SESTRE			
 DATUM MJERENJA	 KOLIČINA L/S	 DATUM MJERENJA	 KOLIČINA L/S
31.07.2015.	1405	02.07.2019.	1284
13.08.2015.	1349	06.08.2019.	1080
06.10.2015.	1632	31.08.2019.	1144
28.07.2016.	1800	03.10.2019.	1104
29.08.2016.	1270	23.10.2019.	927
31.08.2016.	1300	24.01.2020.	1257
14.09.2016.	1430	14.02.2020.	1627
30.09.2016.	1480	05.05.2020.	1647
27.06.2017.	1350	12.06.2020.	806
26.07.2017.	1150	03.07.2020.	848
15.08.2017.	1140	09.07.2020.	720
31.08.2017.	1180	17.07.2020.	853
03.10.2017.	1047	24.07.2020.	562
06.11.2017.	1367	27.07.2020.	581
25.07.2018.	1355	30.07.2020.	655
31.08.2018.	1200	05.09.2020.	334*
01.10.2018.	1293	30.11.2020.	941
26.10.2018.	984		

A factory is also planned

The Regional Water Supply System Company also plans to build a water factory, and director Goran Jevric claims that the drop in yield will not jeopardize the project.

"The production capacity of the planned factory of bottled water at the Bolje sestre spring is 1-5 liters per second, so this project cannot be endangered by the decline in the yield of the spring," he told CIN-CG.

Regarding the project of building a factory for bottling water and producing beer and cold teas, the RWSSC document "Vision of Development 2030" states that the preconditions for its implementation are "realistic, while it is necessary to complete the procedure in the Parliament of Montenegro, which should adopt planning assumptions for the area of Skadar Lake so that the RWSSC would be able to obtain urban and technical conditions for the start of construction of the water factory".

The regional water supply system has prepared a conceptual project, as well as a study on the environmental impact assessment, which, as the RWSSC claims, created the preconditions for a potential investor to start an investment of several million euros.

described it as "an attempt to divert attention from its (RWSSC) obligations to other institutions" as frivolous.

Executive director of the NGO "Green Home" Natasa Kovacevic told CIN-CG that WA did not research the capacity and quality of water from the Bolje sestre spring, nor it had determined the specific impact of the regulation of the Moraca, or the illegal exploitation of gravel and sand from the riverbed, as well as from agricultural land.

She pointed out that the picture of the devastated lower course of the Moraca in the second and third protection zones of the water source can hardly be subsumed in the major part under the climatic influence.

"But it is understandable that for those who earn money at the expense of gravel exploitation and on the other side at the expense of water exploitation, such a justification can suit" ... The regulations are violated by both the concessionaires and the competent institutions, noticeably in front of the lay and professional public, achieving incomes, while neglecting the aspects of water safety and water protection, as well as the environment," Kovacevic said.

Gutic's decision stopped the works on the project of regulating the Moraca on section three, from the mouth of the river Sitnica to Ponari, which was performed by "Bemax" and supervised by the "System-MNE" of Podgorica.

"The reason for the temporary suspension of regulation is precisely the possible threat to the water supply of the Montenegrin coast, although the impact of watercourses and regulatory works on the abundance of water sources has not been proven by not classifying the third zone of sanitary protection," he told CIN-CG.

Gutic said that the situation on the Moraca is further aggravated by the exploitation of materials from land that is treated as agricultural.

"Events that are not completely under control lead to the fact that the execution of the project is not happening at the dynamics we would like, but there were no deviations from the project solution," he said.

"Bemax" told CIN-CG that from 2015 to 2019, they paid 156,780 euros to the Water Administration and that they paid 2.5-3.0 euros for a cubic meter of extracted material. That means that they extracted at least 52 thousand cubic meters from the riverbed. When asked if they had any reports and warnings concerning the deepening of the riverbed, they said that there were "no objections to the work".

WA previously had agreements on the regulation of other sections of the river with "Cijevna Komerc" and "Beton Montenegro". The amount of the fee for the purchase of surplus materials, as the Administration previously stated for CIN-CG, was 2.75 euros per cubic meter for Cijevna, and 2.76 euros for Beton Montenegro.

The company "Cijevna Komerc" has signed a contract on the regulation of the Moraca riverbed on a section of 3,267 meters, downstream from the Vukovacki Bridge and 70% of the works have been completed.

"They were stopped in 2018 due to the inconsistency of the new project documentation with the actual situation on the ground, and the second part disputed the execution due to unresolved property-legal relations," the company "Cijevna Komerc" told CIN-CG. They claim that they were extracting raw material for further processing through regulation and that they paid 187,606 euros.

"Accordingly, the amount of extracted material is approximately 68,000 cubic meters," it is stated in response to a question from CIN-CG.

Company "Beton Montenegro" did not answer CIN-CG's questions.

General Director of Directorate for Water Management, Ministry of Agriculture, Forestry and Water Management, Momcilo Blagojevic, agreed that climate change cannot be the cause of a large drop in springs, but said that "concrete impacts must be professionally proven."

"... which has had to be done so far by the source administrator, taking into account the linear decline in the yield of the source from 2005 until today, which has been measured and

validated by the Institute," Blagojevic stated. According to Blagojevic, the allegations in the "Vision of development 2030" of RWSC that the impact of the temperature change led to a decrease in the yield of the spring are not relevant, because "... the annual precipitation trend has remained almost unchanged."

At the beginning of this year, two projects have begun, one financed by the European Bank for Reconstruction and Development, which will try to determine the causes on a scientific basis, but also to propose measures to protect springs and increase capacity. The finding is expected by the beginning of June.

Miloš RUDOVIĆ



THE LIM RIVER IN BIJELO POLJE CONVERTED
INTO WASTEWATER CANAL:
**RIVER OF DEAD FISH
AND BLACK LIQUID**

STATE INSTITUTIONS LEFT THE RIVER TO ITSELF TO SOLVE THE PROBLEM OF POLLUTION AND ECOCIDE DOWNSTREAM FROM BIJELO POLJE. HIGH-QUALITY FISH ARE DECLINING, HEAVY METALS HAVE BEEN FOUND IN THEM, AND THE NUMBER OF FISHERMEN HAS BEEN REDUCED BY THREE QUARTERS.

“**N**obody fishes in the Lim anymore. People neither eat fish nor give it to children because of the pollution. The fish stock has been reduced. There is not even ten percent of the former”, Ismet Softić, president of the Sport Fishing Club “Sinjavac” says for the Center for Investigative Journalism of Montenegro (CIN-CG).

He points out that in 2009, 828 recreational fishing licenses were issued, while only 220 last year. The fish used to be the primary food source for people of this area, but now nobody wants to eat it because it is contaminated.

Today, there are more than 270 illegal landfills near the Lim. There is a large number of industrial pollutants and untreated wastewater, from the half-century-old and 185-kilometer-long sewage network in Bijelo Polje flows into the river. All that has turned the river into one of the most polluted watercourses in Montenegro.

Due to the pollution, trout and some plant species disappear from the Lim, while others that tolerate released toxins are settled. Experts have also discovered a high concentration of heavy metals in fish.

A study conducted by CIN-CG showed that, even though the Lim has been declared a river of national importance and despite the warnings of experts and the obligations from the Negotiating Chapter 27, the state institutions do little to improve the current situation.

The Ministry of Sustainable Development and Tourism (MSDT) and its Environmental Protection Agency of Montenegro (EPA), as well as the Ministry of Agriculture and Rural Development with the Water Administration, do not have a comprehensive analysis of the River Lim, sediments, fauna and flora, land and degree of endangerment.

The Water Administration does not have a water cadastre. They accuse the municipalities of being late with the data. The municipality of Bijelo Polje has not even started the planned construction of a wastewater treatment plant. Fines for polluters are symbolic and often expire. Symbolic fines of several hundred Euros for individuals, up to a thousand for companies that persistently do not install treatment plants, are more stimulating than warning.

Occasional cases of fish die-off or changes in the color of the river due to the release of toxic substances, most often end in police reports against unknown persons and endless investigations without results. The Lim and other rivers in the north of the country are overseen by one inspector.

A fish die-off - investigation still underway: The source of the Lim is spotlessly clean. The Lim

flows out of the lake Plav, collecting streams and rivers from the territory of Andrijevica, Berane, and Bijelo Polje along its 83-kilometer-flow through Montenegro. At the time of the SFRY, huge pollution began in Berane due to the release of toxins from the pulp and paper mill, which was closed at the end of the last century. The situation is now alarming near Bijelo Polje and downstream. The international river of the Danube basin then passes through Serbia and Bosnia and Hercegovina, and at the 220th kilometer, it flows into the Drina.

EPA’s State of the Environment Report from 2018, states that the river below Bijelo Polje is “out of all prescribed classes” and “not usable”, while “the pollution has been recorded through the content of phosphates, nitrites, TOC and the Ca/Mg ionic ratio”.

This was recently confirmed by a team of experts from the Faculty of Natural Sciences and Mathematics from Podgorica. A study of the ecosystems of the rivers Lim, Ljubovidja, and Bistrica, published at the end of January, shows that the pollution was mostly caused by industrial and communal waters, while poaching also contributed to the depletion of fish stocks.

The study was initiated by the local government after a large quantity of fish die-off due to the wastewater spills on September 2, 2019. Like numerous reports, this one is also in the investigation phase.

On February 28, 2020, the police, in cooperation with the Environmental, Agricultural, and Water Management Inspection, filed a criminal complaint with the Basic State Prosecutor’s Office in Bijelo Polje against “Mesopromet” LLC and the responsible person HF (33), as well as against the company “Milka MDK” LLC and Manager M.Ć. (31).

Even after several attempts, “Mesopromet” did not want to comment on this for CIN-CG, and “Milka MDK” said that they did not feel responsible.

“It is a long-lasting process, but we will try to prove that we are not responsible for the fish die-off”, Ivan Žunić, the executive director of “Milka MDK”, said.

Two and a half months after this incident, there was another, when black liquid was noticed in the Lim, due to which a criminal charge was filed against unknown persons. An investigation is still underway.

Long-lasting and dedicated devastation of a river: Danilo Mrdak, an ichthyologist, a professor at the Faculty of Natural Sciences and Mathematics, and a member of the team that worked on the study, claims that devastation of the Lim was “long-lasting and dedicated process.” “Complete negligence comes to the surface

only when dead fish start to float. Then people start wondering what is going on, the local fishing societies make their voices heard, videos and photos get viral on social networks, and the media starts reporting. This is a reflection of decades of negligence since it is assumed that the running water will carry it all away. This is what happens when there is no more room for all the waste and toxins,” Mrdak told CIN-CG.

He points out that due to the pollution, “trout become so rare that it can be considered endangered”.

“Species that are more tolerant of pollution and reduced oxygen are multiplying, which supports the thesis that fish community structure has changed. The good thing is that these changes are reversible so when the situation improves, the fish that are now rare or non-existent will return,” Mrdak said.

An indicator of pollution, he says, is the appearance of invertebrates, in science known species from the group Oligochetae, Diptera, and Nematoda, which develop in such an environment.

In the Analysis of Water Pollution in the Lim conducted during 2015 and 2016, environmentalist Danijela Veličković found heavy metals, iron, copper, and zinc in the common nase and chub. There were about 57.5 milligrams of iron per kilogram in the muscle tissue, which is above the limit value of the Montenegrin rulebook on the quality and content of heavy substances, mycotoxins, and other toxins in food.

Veličković is also a member of the commission that worked on the Local Environmental Action Plan of the Municipality of Bijelo Polje 2019-2023 (LEAP) that concluded that “the Lim is the most polluted and neglected watercourse in the country.”

She says that the biggest polluters are livestock and chicken farms, slaughterhouses, households, gravel and sand mines, printing houses, and dairies.

“When large amounts of untreated municipal and industrial wastewater are poured into rivers, as in our country, there is a significant disturbance of the natural balance and pollution dangerous to the health of the population,” Veličković says.

One inspector cannot do everything

The most famous environmental incident on the Lim, in addition to fish die-off, is the release of red liquid in July and August 2017. The water inspector has filed two criminal charges against the unknown person, and the investigation is ongoing, the Basic State Prosecutor’s Office in Bijelo Polje announced.

In October 2018, near the facility of the local meat processor, red liquid painted the Lim. A criminal complaint was filed against the unknown person, which is also in the investigation phase at the Basic State Prosecutor’s Office.

From 2015 to 2020, nine criminal charges were filed on the territory of Berane. In two cases, the defendants for the disposal of municipal waste by applying the institute of deferred criminal prosecution paid 300 Euros each. Seven charges against the unknown persons for the exploitation of gravel and sand are unfinished, and many have expired. Three proceedings were initiated before the Misdemeanor Court in the same period, in one of which a fine of two hundred Euros was imposed, and two cases are still pending. The water inspector issued nine misdemeanor warrants of two hundred Euros each for illegal exploitation of river sediment.

All this is part of 520 inspection controls in five years, which were carried out by one inspector on the Lim. He also brought 21 decisions regarding the exploitation of river sediments, waste disposal, interventions in the riverbed, and the removal of sewer pipes, but as CIN-CG was informed from the Directorate for Inspection Affairs no one was punished.

The institutions in Bijelo Polje have not collected data on how many times and who has been punished for endangering the Lim, while the Communal Police from Berane issued seven misdemeanor orders for illegal dumping of waste near the river, but they avoided answering about the perpetrators and the number of fines.

Almir Mekić, director of the NGO “Euromost”, on whose initiative the competent services went out on the field dozens of times, claims that reports are usually submitted when environmental incidents attract public attention. He also says that those irregularities are numerous and suggests more frequent controls.

Professor Mrdak emphasizes that “it is obvious that the sanctions did not help and that they were not enough, because last summer there would not have been a fish die-off, and the Lim would not have had such a gloomy appearance.”

He estimates that more people should be involved in the supervision of rivers of state importance in the north of Montenegro.

“A complete reorganization of the water sector is needed, with the delimitation of competencies, specification of procedures, and systematization of jobs. I know that there is no hydrologist employed in the Water Administration, as well as that there is only one water inspector for the entire north,” said Mrdak.

In the area of Berane, 42 unregulated construction and municipal landfills were listed on the banks of the river last year, while data on other types of waste are missing. The Catalog of illegal landfills in Bijelo Polje registered more than 230 of these landfills with all types of waste, except medical.

Verbal consent: According to the data of the Water Administration, the following companies: “Mesopromet”, “Eko-meso” and “MI Burko” have temporary water permits for discharging technological wastewater in the Lim. These companies are obliged to examine the quality and quantity of wastewater. The others are not, so it is unknown what is disposed into the river.

According to the documentation provided to the CIN-CG’s journalist in the premises of the Water Administration, the water permit was issued to “MI Burko” despite the untested operation of the treatment plant, due to, as stated, inaccessible terrain. This is contrary to the Rulebook on Issuing Water Acts because the commissions of the Administration should check the functioning of the plants for all companies that have been issued a water permit.

Public water and sewage utility “Bistrica” in Bijelo Polje, a town where according to the latest census 46 thousand inhabitants live, does not have a water permit for wastewater discharge, while the sewage system for collecting and draining wastewater is used by 16 thousand people, i.e. 32.5 percent. The report on the work of “Bistrica” for 2018 shows that the sewerage network is 40 to 55 years old, built of almost all known materials, steel, cast iron, PVC, polyethylene, zinc...

The director of “Bistrica”, Mladen Bulatović, says for CIN-CG that “conditions must be created to implement the laws that regulate water area”. A wastewater treatment plant (WWTP), is necessary. Its construction was planned for 2019, but it was postponed because there was no money. It was planned to cover the urban and industrial zone, i.e. the left bank of the Lim, which is the equivalent of 20 thousand citizens.

The LEAP also states that “an on-site inspection identified about 500 locations of sanitary wastewater discharges, and due to branches and vegetation on the Lim and tributaries, it is impossible to find every sewer pipe.”

From 2015 to 2020, the water inspector issued 21 decisions to obtain water permits. Four companies, whose names the Inspection Directorate refused to disclose, were fined five hundred Euros each and given a deadline to obtain it. Three companies do not have it yet, so they were fined a thousand Euros.

The cadastre of potential pollutants, derived from LEAP, states that a dairy “Milka MDK”, two chicken farms “Beganović”, printing houses “Mercator” and “Pegaz”, two wood processing

companies “Brenta””, Ltd “Selector”, “Bau Center” and “Gradišta Komerc” do not have water treatment plants.

CIN-CG’s journalist saw drain pipes in front of companies and farms that do not have a wastewater discharge permit.

Among them, there are two chicken farms “Beganović” in Bijelo Polje. Authorized representative and founder Senad Beganovic refused to answer a CIN-CG’s question on how he plans to protect the river.

Close to the car service and the vehicle technical inspection station “Wagen”, the journalist also noticed two exhaust pipes. Traces of black liquid were also noticeable from one of them. The executive director of the company, Refik Kasumović, claims that it was not released from the company’s premises.

“We are not an ordinary car service, and our wastewater cannot significantly pollute the Lim. Both pipes are sewage pipes and wastewater from the car service goes to the pool, which is regularly emptied, and it is performed by the utility company”, Kasumović said. Water and Sewer Utility confirmed to CIN-CG that wastewater from this and all empty basins is discharged into the river.

Wastewater and organic waste are located in front of the farm “Franca Oluja” on the land near the Lim. Company “Mesopromet” whose farm this is, refused to answer CIN-CG’s questions.

“We do not have wastewater treatment plants, and we are not planning to build them, because there is no need. All our technological wastewater is collected and transported by the company for sanitary and environmental protection “Hemosan” from Bar”, Zoran Loktionov, the owner of the printing house “Pegaz”, claims for CIN-CG. However, “Hemosan” told CIN-CG that they have nothing to do with the wastewater from “Pegaz”, and that in a certain period in 2019, they took away the packaging and paints.

Loktionov paid a fine of 1,200 Euros for spilling red paint from the company “Pegaz” in the tributary Lješnica, and then in the Lim on March 22, 2019. The company claimed that it was an employee’s mistake.

The director of “Milka MDK”, Ivan Žunić, said that the wastewater from the dairy flows into the common manhole of the sewage drain and it is thus treated.

“That is the problem that should be solved by the city sewage system to which we are connected. We regularly pay for the sewerage, 50 percent of the used water”, Žunić said. According to him, the dairy has had the same products for 40 years, they have never polluted the river, but they will still build treatment plants, when money from the European program for rural development IPARD, with 50 percent non-refundable support,

Drafting a list of pollutants takes a long time

The Environmental Protection Agency has warned several times that “the cadastre of pollutant sources, as a basic instrument in the policy of adopting measures and plans to prevent and reduce pollution, does not exist yet, so it is necessary to work on its establishment as soon as possible.”

The Municipality of Berane is preparing the Local Environmental Protection Plan 2019-2023, from which the cadastre of potential polluters of this municipality could be drafted. From the available documents, as is the case in Bijelo Polje, it is not possible to conclude about the causes of pollution.

Professor Mrdak points out that the water cadastre, which, according to the law, should be managed by the Water Administration, is much more important for the water of state importance.

“I know that it does not exist yet, but that does not prevent the municipality from making its list of pollutants,” Mrdak said.

The Water Administration answered CIN-CG that in October 2019, they started to make a water cadastre, but that the municipalities did not provide them with “all specific information”.

“The municipality of Bijelo Polje submitted to this body the Cadastre of potential polluters. Water and Sewerage Utility of Berane gave a list of legal and natural persons who can be polluters on the territory of this municipality,” it is stated in the response of the Water Administration.

is approved.

According to the regulations derived from the Law on Waters, “Milka MDK” should have a water permit for the discharge of wastewater, and the inspection should punish those who do not have it.

The other seven companies from the Cadastre of Potential Pollutants from Bijelo Polje, “Fishpond Kasumović”, car wash “Damjanović”, “Optikon Bistrica”, PI “General Hospital”, Health center, butcher “Denko” and “Mesopromet” have treatment plants, but Veličković still has objections.

“They have certain plants, sedimentation tanks, pits, manholes for primary wastewater treatment, so the inspection should check the work of those plants,” Veličković says.

A bad example is a hospital in Bijelo Polje, from which sanitary and fecal waters go to a sedimentation tank, built in 1975 and reconstructed in 1999, and so insufficiently purified flow into the Lim.

“Wastewater from the nursing home and one part of the settlement is connected to the sedimentation tank, so it is difficult to determine the exact amount of fecal and wastewater,” the Cadastre of Potential Pollutants states.

The hospital told CIN-CG that everything was fine with the plant, and that “other institutions should deal with its inspection and testing.”

As a positive example, Veličković praises the car wash “Damjanović”, whose owner Vuk Damjanović implements good practice from Switzerland, where he lives. According to the available documents, this company uses the most modern methods of wastewater treatment.

“It is a separator with a volume of 2,000 liters, equipped with several filters, which completely

clean the water and retain dirt, designed to protect the environment. We have owned the plant since the establishment and we chose it exclusively for the protection of the Lim and biodiversity”, Mirko Damjanović, the executive director of the car wash, said for CIN-CG.

Rita Bajraktarevic, an ecologist from Berane, points out that the Lim is the most polluted in the territory of Bijelo Polje because there is a larger number of polluters there. That city, unlike Berane, does not have a WWTP.

Pollution comes from neighboring countries as well: Danijela Velickovic estimates that the Lim is problematic because it is “unknown from the systemic scientific-research aspect”.

“In order to talk about the degree of endangerment, it is necessary to do other analyzes in addition to the basic physical and chemical parameters: river sediments, state of fauna and flora, soil on the bottom and shore, geomorphology of the riverbed, degree of endangerment,” Velickovic claims.

Everything that is thrown or dropped in Bijelo Polje easily ends up in a part of the Lim in Serbia, which is why the authors of the LEAP point out the danger of transboundary pollution in Serbia and Bosnia and Herzegovina.

Vladimir Malešić, a member of the Ecological Society “Friends of Sopotnica” from Prijepolje, says that “due to the great power of purification that the river has, the Lim in the territory of this municipality often belongs to classes I and II, less often at the transition to III.”

“Every high tide of water takes away, but also brings new quantities of waste, which cover the shores, while the trees are “decorated” with bags. It is obvious that huge amounts of garbage, in the part above Prijepolje, also come from Montenegro

“, Malešić said.

The European Commission (EC) estimates that the level of harmonization of Montenegro with the European Union in the field of water management is still limited, and along with the climate changes it presents the weakest link, biologist Jelena Marojevic said for CIN-CG.

“The EC states that wastewater is still the largest source of river pollution in Montenegro. In this sense, more work is expected to solve the problem, especially in the process of drafting management plans for the Adriatic and Danube basins, which have been long-awaited. Montenegro needs to ensure the establishment of a water status monitoring program. Only by fulfilling the EU requirements to which we have committed ourselves, with consistent application of penal policy, raising awareness, changing bad habits and ways of doing business of some economic entities, can we expect that the condition and quality of our rivers will improve, so the Lim is no exception,” Marojević concluded.

The management plan for the Danube basin, to which the Lim also belongs, is being drafted and it is expected to be completed by the Water Administration this year.

Alisa HAJDARPAŠIĆ



RIVER ZETA ON VERGE OF COLLAPSE
BECAUSE OF POLLUTION, LOCALS FEAR:
**FROM POTABLE WATER
TO PERILOUS WATER**

THE “VERY BAD STATUS” WHICH MONTENEGRO’S HYDROMETEOROLOGICAL OFFICE GAVE TO THE RIVER ZETA AFTER EXAMINING THE WATER IS A MILD DESCRIPTION OF THE LEVEL OF POLLUTION WHICH IS CAUSING LOCALS TO FEAR THAT THEY WILL FALL ILL MORE OFTEN. EXPERTS CLAIM THAT THE INSTITUTION AND POLLUTERS ARE WORKING TOGETHER.

Residents of the village of Grbe near Spuž are thinking of leaving their properties and looking for a less dangerous area. They want what they consider their birth right – the right to clean air, water and food.

“The right to live, nothing else,” says local Goran **Đuričković**.

Their ancestors divided the land up between their heirs so that each would receive a piece that bordered the river. This is why the properties along the Zeta are mainly long and narrow.

This 86-kilometre-long tributary of the River Morača and part of the Adriatic Basin is fed by waters from the north of the country which flow into Nikšić Field. This water, filtered in the womb of the earth, reappears at the place known as Glava Zete. Once rich in fish and plant life, the lower flow, instead of being a source of life, has become a dangerous channel into which wastewater drains from numerous companies. The fish stocks are almost totally destroyed and the locals fear that their health is threatened.

“We asked the Institute of Public Health of Montenegro to carry out health checks on people from that area, because for several years now we have had a high mortality rate from carcinomas, which wasn’t the case in earlier years. The Institute informed us they cannot make any decision on this for now because of their increased workload in light of the coronavirus epidemic,” said **Đuričković** for the Centre for Investigative Journalism of Montenegro, the Balkan Investigative Reporting Network and Monitor (CIN-CG/BIRN/Monitor).

The Institute did not respond to questions about whether they ever intend to investigate the claims of the locals from Grbe, nor why this has not yet been done.

An investigation carried out by CIN-CG/BIRN/Monitor has shown that those who are responsible for the state of the water are, first and foremost, the Water Authority, the Agency for Environmental Protection, the Inspection Service and the government departments which allow the functioning of serious polluters, even though those companies often do not have ecological compliance, water permits or other proofs about the quality of the matter they discharge into the river and the effect they have on the environment.

The Water Authority does not yet have a register of polluters. A CIN-CG/BIRN/Monitor journalist confirmed that wastewater is in fact coming out of the discharge pipes of companies which have not been issued permission by this body.

Laboratories without equipment

A specialist veterinary laboratory in October of last year examined fish that had been caught in the River Zeta. After cooking them, they confirmed “an unpleasant smell uncharacteristic of that species of fish”.

Examinations by the Water Quality Department of the Hydrometeorological Office of Montenegro (HMZCG) during 2019 showed that the Zeta had very poor physical and chemical characteristics. The last time an analysis was carried out was in November of last year.

“The waters of the Rivers Morača, Bojana, **Čehotina** and Zeta had the status of ‘very bad’. The waters of the Cijevna, Gračanica, Lim, Lješnic, Ljuboviđa and Ibar had the status of ‘bad’, and this is in parts of the lower flows,” it is recorded in the analysis. It also shows that the Zeta has fewer invertebrates, which are sensitive to a polluted environment! Samples were taken “in the region of the confluence of the Zeta and Morača, at Vranjske njive”.

The HMZCG was not able to give an answer about how the “very bad status” is reflected in the fish stocks and agricultural produce from the meadows which are irrigated from the river and, hence, in the health of the local population.

“The Office is not technically equipped for this sampling and analysis work. But these examinations will have to be carried out by equipping the laboratories of the Office or by employing other laboratories,” said **Nevenka Tomić**, the head of the Department for Water Quality in the HMZCG for CIN-CG/BIRN/Monitor.

The Agency for Environmental Protection has, however, recorded the sources of pollution which affect the fish stocks: “communal wastewater, mainly laden with organic material, a pig farm, a chicken farm, Lazine Dairy, a slaughterhouse and an urban settlement”.

And a CIN-CG/BIRN/Monitor journalist, paddling a canoe along the Zeta on 16 July from Danilovgrad Bridge to the place Grbe, noticed a large number of pipes from which waste was being discharged into the river. Besides the discharge from urban sewerage, there are also pipes from the Mermer and Šišković stone quarries, Lazine Dairy, Monte Bianco cheese factory, Primato-P slaughterhouse, Neksan-Čavor pig farm and the Administration for Criminal Sanctions...

From the majority of discharge pipes the wastewater made the river cloudy and an unpleasant smell emanated from it. That day there was no wastewater from the outflows of

the companies Primato-P and Eurozox, which there had been in the previous period. (Video: Iz prošle godine gdje se vidi da iz ovih kompanija stižu otpadne vode)

Permits expired, companies working

It is precisely because of these or even more alarming images recorded last year that the locals of Grbe were protesting for months.

“As children we did not go to springs or houses, we drank straight from the Zeta. Today we cannot go near the river, it is so polluted, let alone go for a swim in it or drink from it,” says Đuričković.

He and his neighbours complained because of the unbearable stench coming from near the pig farm, but also because of the wastewater coming from the farm and the Primato-P slaughterhouse next door.”

In October of last year, the locals also submitted a criminal complaint against Dragan Čavor, the owner of the company Niksen-Čavor, claiming that his farm was polluting the environment. The Basic State Prosecution in Podgorica found that “there are no grounds for undertaking criminal prosecutions against any person, for any criminal offence for which he/she may be prosecuted ex officio”.

“Our system does not protect... We are asking for the law to be applied to every business,” Đuričković states.

The law states that every company that could affect the ecosystem of the Zeta must possess a system for cleaning up wastewater, as well as a water permit. A study is also supposed to be carried out regarding the effect on the environment, for which consent, depending on the jurisdiction, is given by the Agency for Environmental Protection or the local government organ.

The Water Authority told CIN-CG/BIRN/Monitor that, out of all the businesses whose outflow pipes discharge into the Zeta on the territory of Danilovgrad, only the Mermer and Šišković stone quarries, Zeta Energy, Senca, Eko Petrol and Jugopetrol have water permits. They obtained them for a period of 10 years and they are still currently valid.

The companies that are causing Grbe’s locals to complain – Niksen-Čavor and Primato-P slaughterhouse – do not have permits to discharge wastewater into the Zeta. At the end of May 2018 they obtained temporary permits which are no longer valid.

“The aforementioned temporary water permits were issued for a period of 12 months and expired on 31 May 2019,” the Water Authority informed us.

The owner of the pig farm, Dragan Čavor,

claimed to CIN-CG/BIRN/Monitor that they no longer have to have a water permit because since December 2019 they have not discharged “even a drop of wastewater” into the Zeta. Now, he says, there is a separator in use, which separates out waste into solid waste and water, which they use for irrigation.

“Since we do not discharge water into the Zeta, there is no need for us to have a water permit”, Čavor explains.

However he had no answer to the question of who it was, then, that discharged wastewater into the Zeta in Grbe on 16 July of this year. This was confirmed by the CIN-CG/BIRN/Monitor journalist who took the video footage. In the place where wastewater had earlier been discharged from the pig farm and the slaughterhouse, a brownish liquid was flowing out, with a strong smell of pig faeces.

“Morally, materially and before the law, I claim that this wastewater does not come from the farm – where it does come from should be ascertained by the competent institutions. It is not technically feasible, because our outflow was concreted up in the presence of the water inspector,” claims Čavor.

During January and February of this year the water inspection checked the pig farm’s work twice and confirmed that the rules were being followed.

Who to believe – the owners or one’s own eyes?

Biologist Vuk Ikočić, however, claims that uncleaned wastewater containing animal faeces and urine is still being discharged into the Zeta.

“Knowing the activity of the surrounding businesses, this wastewater originates from either the Primato-P slaughterhouse or the pig farm, or both businesses,” says Ikočić, explaining that this is occurring mostly because of incorrect handling of animal waste.

“At this moment the pig farm is not polluting the environment in terms of wastewater. Everything we were ordered to do last year we have done,” says Čavor.

That the Primato-P slaughterhouse has continued discharging wastewater into the river without a permit, which expired in May of last year, is also confirmed to the CIN-CG/BIRN/Monitor journalist by the owner Panto Vučurović.

“If an investor does not have a water permit, it cannot begin to function. If an investor does not have a water or ecological permit, but still carries out its activities, it is the same as if you drive a public bus service and do not have a driving licence,” says Ikočić.

In order for someone to obtain a permit, according to him, he has to prove that wastewater

What's left is cleared up by poachers

What the polluters haven't done to the Zeta, poachers have, say CIN-CG/BIRN's interlocutors.

The river is home to the softmouth trout, an endemic and protected species in Montenegro.

Thirty-five years ago, according to ichthyologist Danilo Mrdak, this was the most abundant type of trout in the Zeta.

"Now we can only hope that as many as a few hundred of this fish remain. For six years we have failed to catch one, and I have not heard of any angler managing it either," says Mrdak for CIN-CG/BIRN/Monitor.

The vice president of the Municipality of Danilovgrad, Ilija Grgurović, speaks worriedly about what is happening to the Zeta. He claims that "poaching is also blossoming nowadays".

"This fish is in such a bad state that it is facing extinction," says Grgurović.

The business association "For the Breeding, Protection and Hunting of Game and Fish" Danilovgrad, which should be looking after the fish stocks, notes Grgurović, has five employees, of which three are poorly-equipped game wardens, on the verge of retirement.

"They were not up to the task... We have not succeeded in prosecuting a single poacher for years now... We cannot get hold of data on how many poachers there are, but there are definitely too many... There are poachers, but we have no proof. Only alerts and reports," says Grgurović.

Mrdak claims that fish in the Zeta are threatened due to poachers and poor monitoring by the competent authorities.

"Truth be told, the common nase has appeared again, there are a lot of chub and also eels, but with the state of crayfish and marble trout, and especially softmouth trout, it is time to sound every possible alarm if we want to continue to have them in the Zeta," says Mrdak.

In December 2019, after the "Study of the Protection of the Protected Natural Resources of the River Zeta" was produced, it was decided that fishing would be banned on the river except around the bridges in Danilovgrad and Spuž. It will be like this for the next three years.

from the production process will not affect the quality of the river. For this reason, he says, it is very important that the competent institutions have qualified officers who will be able to assess all the data which the investor submits.

When asked who is responsible for the fact that some companies can discharge wastewater into the river without a permit, the Water Authority points its finger at the business owners:

"It is the entrepreneur, or person who carries out the activity and does not put into effect the measures stipulated by law. However, when it is determined that the law or another rule has been violated, or that standards and norms are not being followed, the water inspector takes institutional measures and actions in line with Article 163 of the Law on Water Resources."

In that article of the law it states that the inspector would also be able to prohibit a company from working if it does not have the necessary water permit.

In the last four years the work of the Primato-P slaughterhouse has been temporarily suspended for the reason that the wastewater had a concentration of harmful matter greater than the maximum allowed level.

During one of the last inspections of the slaughterhouse on 29 May, inspectors determined that there was no device for measuring the quantity of water discharged into the Zeta.

The slaughterhouse owner Panto Vučurović, in a telephone conversation on the eve of the publication of this investigation, claimed that the

device was recently installed, so they are waiting for the competent inspector to go to the field to determine the factual situation.

In fact, the fact that they do not possess this device and the fact that it is not clear who manages the communal drains for atmospheric runoff (into which many companies' wastewater drains) are the reasons why, according to Vučurović, they do not have a water permit. The application for obtaining that document will be submitted when all the conditions are satisfied.

Although Vučurović claims that their water treatment system is functioning and that only treated water is discharged into the Zeta, in February of this year the inspection determined that blood was flowing into the river from the slaughterhouse. A fine of €1,400 was issued to the responsible individual in the company Primato-P for this.

A blind eye turned to polluters

During 2018 and 2019, no one from the territory of Danilovgrad submitted data on the discharging of polluting matter to the Agency for Environmental Protection even though they were obligated to do this by the Law on the Environment and the Rulebook on the Detailed Content and Manner of Maintaining the Cadastre of Environmental Polluters.

"The two biggest polluters – Nixsen-Čavor pig farm and Lazine Dairy – do not have ecological compliance. For this reason alone, they were not

allowed to begin working, but for years they have been using the River Zeta as a place to dump their waste," says Iković.

In an interview with CIN-CG/BIRN/Monitor, Dragan Čavor said that a process was underway before the competent authority of the municipality of Danilovgrad, after which it would be known whether it was necessary to make a study on environmental impact assessment.

The dairy responded for CIN-CG/BIRN/Monitor, saying that since 2003 they have had ecological compliance issued on the basis of an assessment of the effect on the environment, which was also undertaken 17 years ago. Iković, however, claims that the dairy must carry out a new study. The new Law on Assessment of the Effect on the Environment from 2008, he says, is now in effect and the dairy has exceeded the capacities stated in the old study.

In the opinion of this biologist, the dairy's document from 2003 was not valid either: "The content itself is such that the processor of the documentation and the responsible person who gave consent for this document should be processed, because they allowed the Zeta to be poisoned from the moment the dairy began to work."

For this reason, he says, the failure to solve this problem "points to cooperation between the institutions and the polluters".

"This says that the primary polluters are the institutions, because they are paid to guarantee a healthy environment and the health of the citizens," says Iković.

An interlocutor from one of the government services, who is aware of events in this field, points to the lack of water cadastres – among which would also be a cadastre of polluters – as the biggest problem.

"There is no information system yet. The water authorities are at fault for this," he says.

According to the Law on Water Resources, in Article 159, it states that "the water information system (...) is established and maintained by the competent administrative body", in this case the Water Authority.

Our interlocutor notes that these "information systems", i.e. the list of polluters, are essential for the inspection body to go out onto the field and check anyone who is potentially polluting the rivers.

"A cadastre of polluters is the basis for the work of the inspector. Without that list they can work only on the basis of complaints, but if they examine the terrain then they will come across polluters. However, all polluters need to be recorded so that the inspectors can know whom to monitor," CIN-CG/BIRN/Monitor's source states.

Besides the lack of cadastres, he notes that

"those who issue work permits often neglect to make sure that businesses submit to them all the necessary documentation". So, it often happens, he says, that someone begins to work without having all the necessary permits – a water permit or even a water treatment system.

"Either the officials are abusing their position, or are not getting too involved," he says.

Nemanja ŽIVALJEVIĆ

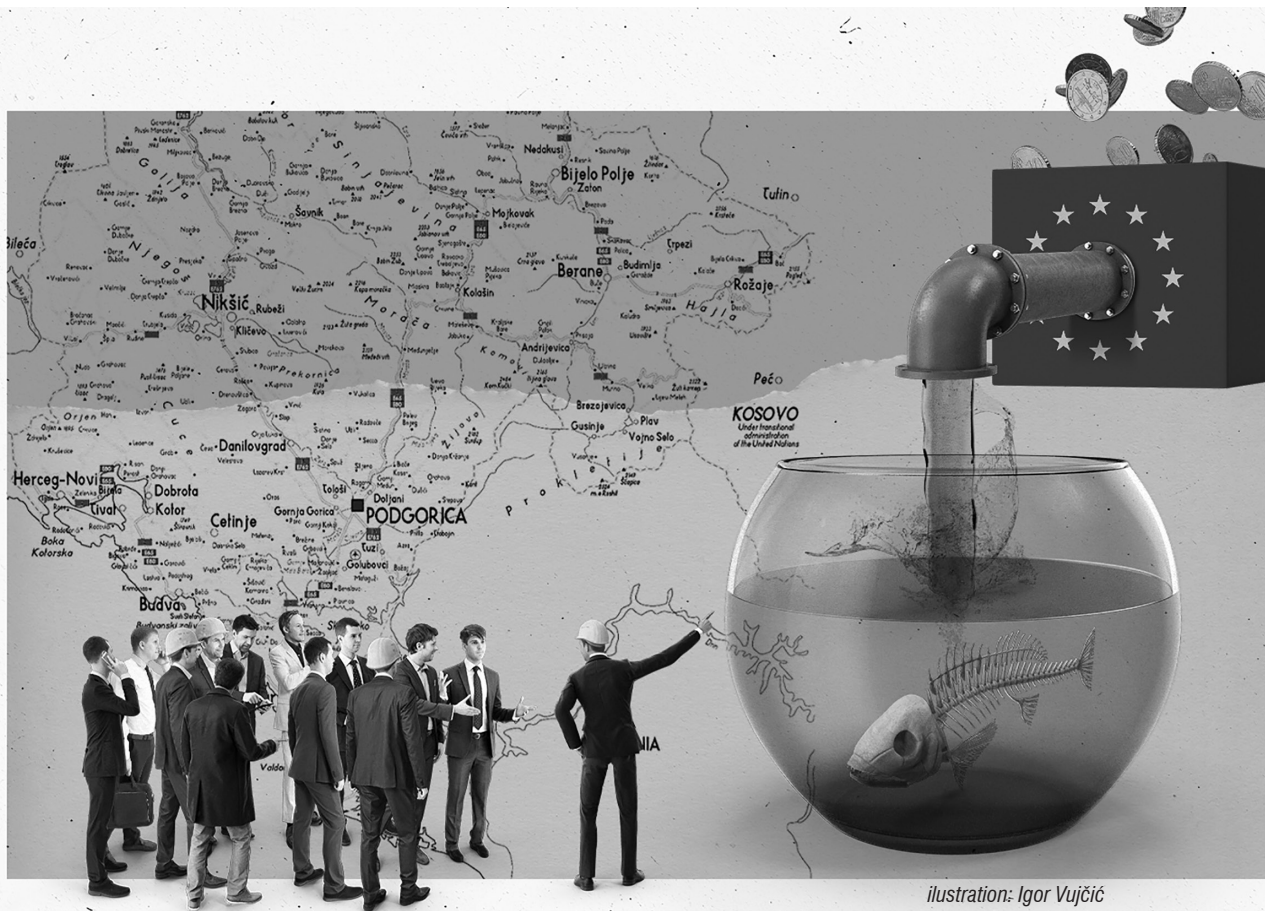


illustration: Igor Vujčić

UNBUILT SEWAGE TREATMENT PLANTS COST MONTENEGRO TAXPAYERS MILLIONS

Seven Montenegrin municipalities were offered multi-million-euro grants in 2012 to build essential wastewater treatment plants to prevent sewage polluting rivers and the sea, but no construction work has begun yet, and as years pass, the potential cost keeps rising.

Rozaje was intended to be one of the first municipalities in Montenegro to get a wastewater treatment plant to process domestic sewage in order to ensure that the water that is discharged into rivers, lakes and the Adriatic Sea is relatively clean.

From 2011 to 2014, the municipal authorities in Rozaje managed to conduct a feasibility study for the plant, select a location and include it in the municipality's urban spatial plan.

The next phase was the construction of the wastewater treatment system. A grant of 200,000 euros was provided from the European Union's Instrument for Pre-Accession Assistance, IPA, for a feasibility study; the municipality of Rozaje also borrowed around 2.8 million euros from the European Investment Bank for the construction, while a grant of 700,000 euros was provided from the European Fund for the Western Balkans.

But in 2014, the Democratic Party of Socialists, which had run Rozaje for two decades, lost power in the municipality.

The new municipal authorities, led by the Bosniak Party and the Social Democratic Party, then suddenly decided to build the wastewater treatment plant at another location.

As a result, the site study had to be carried out again but the new authorities could not get the money from the EU's IPA fund. The money was instead diverted to resolving wastewater issues in other municipalities which were more prepared to build plants.

The municipality of Rozaje told BIRN and the Center for Investigative Journalism of Montenegro, CIN CG, that the reason for the change of location was because the facility would have been too expensive at the original site because a pumping station would also need to be built there.

"Although the study predicted that [original] location was the best, it was considered that this solution should be abandoned," the municipality said.]

This is just one example of how several Montenegrin municipalities have been left without wastewater treatment plants due to poor decisions by the local authorities, which have also failed to take advantage of the money that was granted to them for the projects.

BIRN/CIN CG's research shows that seven Montenegrin municipalities – Rozaje, Plav,

Bijelo Polje, Kolašin, Danilovgrad, Cetinje and Ulcinj – lost the chance to receive more than ten million euros that had been pledged through grant schemes for the construction of the wastewater treatment plants.

The municipalities' failure to build the plants will also cost Montenegro's state budget almost 20 million euros, because years of delays have led to increased costs for construction.

The construction of the wastewater treatment plants is one of the obligations to which Montenegro has committed itself while negotiating Chapter 27 of the body of legislation that the country has to harmonise with EU standards in order to move towards membership of the bloc – the chapter covering the environment and climate change.

As Montenegro's membership negotiations continue, the plants still have to be built, although they will cost the municipalities much more than previously planned.

Delay means more river and sea pollution

Azra Vukovic, executive director of the Montenegrin environmental NGO Green Home, told BIRN/CIN CG that any delay in the implementation of projects to build wastewater treatment plants contributes to the deterioration of the quality of water in the country's watercourses and increased concentrations of pollutants, and has a negative impact on river and marine life. She also argued that pollution has an indirect impact on public health.

"The lack of spatial planning documentation, the lack of project documentation, the lack of human capacity to lead these processes and the lack of financial resources that needed to be provided in order to use donor or credit funds are just some of the reasons that prevented the implementation of these projects," Vukovic explained.

She argued that there are several reasons for the problems that have arisen. One of them, she believes, is the lack of capacity at the local level to prepare and lead such large and demanding projects. Local authorities, do not sufficiently recognise the importance of such projects, she said – particularly because their implementation is a long and demanding process.

In some towns, there is also the problem of "illegally constructed buildings at the location intended for the construction of the plant", Vukovic added. Sometimes extra cost is also incurred because land needed for the plants is privately owned and has to be bought by the municipality.

"Another reason for these projects slowing down lies in the fact that local authorities often

do not want to implement projects that will ultimately produce an obligation for citizens to pay additional fees for such services, and therefore they prolong their implementation," she claimed.

Wastewater flowing into the River Ibar

The municipality of Rozaje, after losing its initial funds from the EU's IPA, was fortunate enough to get money for the construction of the plant again in 2019.

However, while over three million euros were initially allocated to build the plant, the government's Municipal Wastewater Management Plan for 2020-2035 estimates that it will now cost just over five million. Along with the construction of a new sewerage network for the town, it is estimated that the total cost could go up to 12 million euros.

PROCON, a government-established unit for implementing utilities and environmental protection projects, said that the construction of a system for collecting, draining and treating municipal wastewater is one of the main priorities when it comes to environmental protection.

Wastewater from Rozaje is currently flowing into the River Ibar, about ten kilometres from its source. According to water quality monitoring by the Environmental Protection Agency, in 2018, the Ibar was among the most polluted rivers in Montenegro.

"This [treatment plant] project aims to improve the treatment of wastewater in the area of Rozaje, and thus reduce the negative effects of pollution of the River Ibar," said PROCON.

The municipality of Rozaje said that the wastewater project now has "a high degree of readiness for financing", but that the municipality needs more assistance because "this project, in terms of its scope, significance and value, exceeds our current organisational and financial capabilities".

Unresolved financing issues

A total of 5.2 million euros were allocated by 2012 for the construction of a plant to serve the municipalities of Plav and Gusinje – more almost five million through the EU's IPA pre-accession programme, and the rest in a loan from the European Investment Bank.

The plant, however, was not built, and the money allocated through the IPA programme was not handed over. Currently, wastewater in the Plav municipality is discharged into the rivers Lim, Vruja and Grncar without being treated beforehand. In 2012, the validity of the study on the impact of the plant on the

environment expired. Due to the municipality's inability to take a loan, it remains uncertain when the project will begin.

The municipality of Plav claims that work on the preparatory documentation for the plant began at a time when it was also responsible for the local community in Gusinje, which later received the status of a municipality.

After Gusinje became a municipality, its representatives expressed reservations about the plan. "They did not agree with the proposed solutions, because all populated areas were not covered by the planned works," the Plav municipality said.

The Montenegrin government's Municipal and Wastewater Management Plan states that the plant, which would deal with the wastewater from both Plav and Gusinje, would cost about 4.2 million euros – one million less than in the previous plan. However, it is uncertain how the municipalities will get this money.

"The project is planned to be financed through a credit arrangement with the EIB [European Investment Bank], but as municipalities are not able to borrow, defining the financial structure of the project is an open question at this time," PROCON said.

Opposition to plant construction in Danilovgrad

The construction of a wastewater treatment plant in Danilovgrad has sparked a dispute between the settlement of Landza, the intended site of the plant, and the municipality. Danilovgrad's sewage currently flows directly into the River Zeta, although its waters and banks were declared a 'natural park' by the government in 2019.

This caused locals in Danilovgrad to launch a campaign to stop the plant being built at the site, which is a few hundred metres from houses, kindergartens, primary schools and the local health centre.

The project was launched about ten years ago but the campaign for the plant to be built elsewhere has stalled the construction. "As a group of citizens opposes the construction of the WWTP at the planned location of Landza, and the contractor has already been contracted, a solution has yet to be found," PROCON said.

Back in 2010, the state of Montenegro signed a contract with the European Bank for Reconstruction and Development to borrow 5.35 million euros to build the plant in Danilovgrad. According to a 2012 PROCON report, 960,000 euros were set aside for the construction of the plant, while almost three million were set aside for the construction of

the wastewater collector and sewerage network. But since then, the costs have increased significantly.

At the project's presentation on September 9 this year, the municipality of Danilovgrad said that the contract with the contractor had already been signed and that a change of location could lead to international arbitration and cost the state money. The European Bank for Reconstruction and Development announced at the meeting that it had blocked the funds for the plant a few months beforehand.

Municipalities seek more money

By 2012, 1.2 million euros had been earmarked to build a wastewater treatment plant in the municipality of Kolašin. Almost one million euros was a loan with the European Investment Bank, while 200,000 euros were provided from EU pre-accession funds for the development of the project.

The project has been developed, but the municipality of Kolašin has not yet managed to provide funds to take it any further, and it has not yet been built. PROCON said that the municipality was not able to borrow on a larger scale in order to implement the project. Now, with the support of the state and PROCON, it has prepared an application to international financiers.

In the Cetinje municipality, 6.4 million euros was set aside to build a wastewater treatment plant in the village of Dobrsko Selo, most of it in the form of loans from the European Investment Bank, plus more than 1.6 million in grants from the Western Balkans Investment Fund.

So far, it has not been built. PROCON said that there are still several unresolved issues connected to the location for the plant and some of the routes for bringing wastewater from the city. Other sources of financing are also needed.

The project to build the plant and its accompanying infrastructure is directly connected to the project for the drainage of flood and rain waters from the city, through a tunnel to be constructed in Belveder, a location a few kilometres outside the city.

However, the Cetinje municipality said that the municipal Public Works Administration has not yet announced a tender for the construction of the tunnel, which is why the tender for the plant has not been completed yet.

"We must emphasise that we do not have information about when the Public Works Administration plans to announce a tender and realise the works that are a precondition for the realisation of activities on the design and construction of the WWTP," the municipality

said.

The Public Works Administration did not answer BIRN/CIN CG's questions about when it will announce the tender for the tunnel.

Delays and illegal constructions

The municipality of Bijelo Polje, like the municipalities of Rozaje and Plav, has lost access to money from the EU's pre-accession IPA fund to build its wastewater treatment plant because of delays. Bijelo Polje was allocated 1.7 million euros but was not able to borrow the additional amount needed to complete the funding and start the project.

In addition to that money, another 2.3 million euros in loans were secured from the European Investment Bank and 700,000 euros from the Western Balkans Investment Fund.

However, of all the municipalities whose projects have seen delays, Bijelo Polje has progressed the furthest and it is expected that by the end of the year, it will announce a tender for the design and construction of its wastewater treatment plant.

"It is realistic to expect that the tender will be announced in the next few months," the municipality said in mid-September.

Meanwhile in the municipality of Ulcinj, although more than six million euros were provided for the construction of a wastewater treatment plant in 2012, the project was in deadlock until the end of last year.

According to estimates made by the municipality, about 15 million euros will be needed for the construction of the plant. But an even greater problem than the financing is the location for the construction of the plant.

During the ten years of waiting for the construction of the plant, several illegal facilities were built at the site. The municipality of Ulcinj said it is currently working on "an analysis on overcoming this situation".

Montenegro faces 2035 deadline

As a candidate for EU membership, Montenegro opened negotiating Chapter 27 at the end of 2018. Water quality is one of the criteria that Montenegro has to meet, with the obligation to build systems for the collection and treatment of wastewater in all its municipalities by the end of 2035.

Environmental activist Azra Vukovic said that about 47 per cent of the population of Montenegro is currently served by wastewater collection services. The treatment plants that do exist are also not working to their full capacity to treat wastewater, she warned.

"However, the biggest problem is in those

municipalities where plants do not exist and the collected wastewater is discharged directly into the sea or other water recipients," Vukovic said.

"By discharging untreated wastewater, various substances enter our rivers and seas that have negative impacts on water quality, but also on the aquatic organisms that live in them."

Ivan ČAĐENVIĆ



DISPOSAL OF USED BATTERIES IN
MONTENEGRO FAR FROM EUROPEAN
STANDARDS AND PRACTICE:
**HAZARDOUS WASTE
CONTAMINATES FOOD AND AIR**

MILLIONS OF HOUSEHOLD BATTERIES, INSTEAD OF BEING EXPORTED AND RECYCLED, END UP IN THE TRASH. “WHEN ALKALINE BATTERIES ARE DISPOSED OF IN A WASTE CONTAINER WITH ORDINARY, MUNICIPAL WASTE, THE ENTIRE CONTENT BECOMES HAZARDOUS. THIS INCREASES BOTH THE RISK OF POLLUTION AND THE COST OF WASTE MANAGEMENT”, BIOLOGIST VUK IKOVIĆ WARNS

Michael Bader moved to Montenegro from Germany 14 years ago. He rents the apartments in Utjeha Bay, between Bar and Ulcinj. He was the first out of 12 people from Montenegro to be awarded the Ecolabel certification from the European Union (EU) in 2012 for meeting high environmental standards.

Bader noticed that the guests were throwing away a large number of used batteries, so, since it was hazardous waste and guided by experience from Germany, he asked the Utility Company in Bar where they should be brought. They told him that they did not have the conditions for the disposal of used batteries.

“As there is no system for disposing and recycling batteries, I made a box for its disposal. Neighbors are also used to it, so instead of throwing them away, they leave the batteries with me”, Bader says in an interview for the Center for Investigative Journalism of Montenegro (CIN-CG) and Monitor.

Several times a year he carried batteries to Germany.

“In Germany, in every city, there is a recycling center for hazardous waste - tires, computers, batteries, white goods... Such waste is collected free of charge there. A system has been set up to pick up used batteries in stores,” Bader says.

Eight years later, to Bader’s repeated question, CIN-CG/Monitor received a similar answer from the Utility Company in Bar: “In the Waste Catalogue Ordinance - accumulators and waste batteries are classified as hazardous waste and since we are not registered to perform such types of activities, we do not have conditions for disposing and further treatment”.

Although about 50 tons of batteries are imported and used in Montenegro annually, only a few hundred kilograms are returned abroad through authorized companies for recycling or safe disposal.

Most of it ends up in municipal waste, which poses a huge risk to the environment and human health. Distributors and sellers, despite the legal obligation transposed from the European Union, generally do not take back used batteries in places where new ones are procured, while only a few recycling centers do that - the research of CIN-CG/Monitor showed.

In domestic legislation, as well as in the EU legislation, batteries are treated as hazardous waste. They can contain dangerous substances - lead, cadmium and mercury. Heavy metals have far-reaching negative effects on the environment and human health. In the process of decomposition and decay, heavy metals go into the ground, but also groundwater, and then into the food chain. On the other hand, if they burn, heavy metals

reach the air in the form of small particles, and further back into the soil and water.

Batteries, accumulators, soot, waste from paints, varnishes and glues, motor oils, pesticides..., are some of the hazardous wastes with which we are often in contact, biologist Vuk Ikočić, from the Organization KOD, reminds.

“Waste management is not organized in Montenegro. Thus, hazardous waste is often mixed with non-hazardous waste. When alkaline batteries or engine oil packaging are disposed of in a container with ordinary, municipal waste, the entire contents of that container become hazardous. This increases the risk of pollution and increases the cost of waste management,” Ikočić told CIN-CG/Monitor.

He reminds us that fines for mixing waste and improper disposal range from 1,000 to 40,000 euros. The Environmental Inspection, however, does not have precise data on the fines imposed, which, judging by the answers to CIN-CG/Monitor questions, mainly related to the illegal collection and handling of batteries for motor vehicles and other purposes.

“According to the Law on Waste Management, the Environmental Inspection initiates misdemeanor proceedings. In the previous period, there were misdemeanor proceedings that related, among other types of waste, to illegal management of waste batteries-accumulators (collection without a permit, handing over waste to an unauthorized collector, improper storage at the collection site, etc.), but records are not kept in a way that the number of procedures could be singled out, especially by type of waste”, Veselinka Zarubica, Chief Environmental Inspector of the Department for Environmental Inspection of the Administration for Inspection Affairs, said for CIN-CG/Monitor.

During 2018 and 2019, according to the data of the Customs Administration (CA), more than 1.3 million primary batteries were imported. The difference between primary and secondary batteries is that secondary batteries can be recharged, while primary ones have a significantly shorter shelf life. Data obtained by the Statistical Office of Montenegro Monstat somewhat differ from the CA and show that in 2018, more than 700,000 primary batteries were imported, in 2019 875 thousand, and from January to November last year 716 thousand. Batteries for motor vehicles and other purposes are imported significantly more: 4.7 million in 2018, 4.4 million in 2019, and 3.5 million from January to November last year.

It is certain that some of the batteries intended for the household arrive outside the customs procedure and are sold outside the official flows at markets and flea markets. Monstat does not have data or an estimate of how many disposable

FREE OF CHARGE COLLECTION OF USED BATTERIES IN CROATIA

The Regulation in Serbia also stipulates that used batteries and accumulators are taken over from the end-user in the sales facility, and then the trader hands them over to the collector or someone else who performs storage and treatment.

"You should know that for batteries as major pollutants, the state has prescribed an environmental tax that is included in the price of new batteries, so that every time you buy new batteries, part of the price you paid for those batteries is intended for collection, disposal and recycling", it is stated on the website that sells batteries online.

Collection campaigns are organized in some consumer stores, and some local governments do the same from time to time. The widest network for collecting used batteries is organized by the company Delhaize, and batteries can be handed over in more than 70 Maxi and Tempo supermarkets throughout Serbia. Last year alone, 1.4 tons were collected.

In Croatia, a directive is in force that prohibits the placing on the market of certain batteries or accumulators with a mercury or cadmium content above the fixed threshold. The goal is to reduce the number of hazardous substances that end up in nature. In Croatia, there are several possibilities for citizens to get rid of used batteries. They can bring them themselves to recycling yards, i.e. to specialized places of authorized collectors (shops, services, shopping centers...). Free collection is enabled, after calling a toll-free number, sending a message or an e-mail, or entering an order on the website of authorized waste collectors.

batteries a household consumes per year, as well as the number of batteries and accumulators that end up in the waste, they told CIN-CG/Monitor. That is why only comparison based on data from the region is possible. According to the statistical data published by Balkan Green Energy News, an online platform specialized in the topics of sustainable development and ecology, a four-member household in Serbia consumes 20 batteries a year.

In Montenegro, with almost 200,000 households, this could mean that about four million batteries containing hazardous substances end up in waste every year or about 50 tons.

Vasilije Seferović, executive director of Utility Company in Herceg Novi, stated for CIN-CG/Monitor that they collect about 330 kilograms of batteries a year. But, as they specify, these are only batteries that the company uses in the process of work. Batteries aren't selected from

the total amount of waste that is collected, since the company isn't registered for that.

The data of the Waste Management Department of Utility Company in Podgorica also show that the awareness of hazardous waste disposal is not sufficiently developed. From January to the end of October last year, only 62 kilograms of batteries were disposed of in the six recycling yards they manage.

"They are temporarily stored in recycling yards, in containers that are specially intended for these types of waste. After filling the capacity, they are handed over to companies that have a license to manage this type of waste, from the relevant ministries", Podgorica's Utility Company stated for CIN-CG/Monitor.

Company for sanitary and environmental protection which collects hazardous waste "Hemosan" Ltd. Bar, says that in 2020, 291 kilograms of batteries were taken over. They are temporarily stored and then exported to EU countries.

"In 2019, we launched a campaign on collecting used batteries with the trade chain Idea and the Faculty of Business Economics and Law (from Bar), while last year our partner was the distributor S plus", Zoran Nikitović, the director of Hemosan, said.

Hemosan cannot state the exact export price, since the batteries were shipped with other hazardous waste. However, they estimate that 15 tons of batteries could be collected at the level of Montenegro, and exports would cost up to 20,000 euros.

"In Austria, batteries are destroyed, while in Germany they are recycled," Nikitović says.

Several hundred thousand tons of industrial and portable batteries reach the EU market every year - approximately 800 thousand tons of automobile, 190 thousand tons of industrial and 160 thousand tons of consumer batteries.

In case of the absence of a sustainable recycling end market, or if a detailed environmental, agricultural and social impact assessment finds that recycling is not the best solution, EU countries may dispose of waste portable batteries containing cadmium, mercury, or lead in landfills or underground warehouses.

Management of this type of waste in Montenegro is regulated by the Law on Waste Management.

"According to the law, waste batteries and accumulators, which, by the waste catalog, are not municipal waste, are handed over to a company or entrepreneur who performs the activity of collection, processing or disposing of special types of waste. Waste batteries and accumulators that make up municipal waste are handed over to places intended for this type of waste within the separate collection of municipal waste, or to

places intended for the collection of these types of waste at distributors”, Veselinka Zarubica, Chief Environmental Inspector, explains.

According to Zarubica, in practice, only the collection of waste accumulators works.

“Most accumulators are returned for recycling through the purchase of secondary raw materials. Also, a significant amount of waste accumulators is collected through the shares of accumulator’s distributors who give a certain discount when buying a new accumulator if the old one is returned”, the Chief Environmental Inspector points out.

The fact that the used accumulators are handed over to the seller, whereby a discount is obtained for the new one, is also a good example of recycling, Seferovic considers.

Zarubica confirms that the collection of batteries used in electrical and electronic devices has not improved significantly.

“The reason is primarily that this type of waste is generated in small quantities that are of interest for collectors of secondary raw materials. Certain quantities are collected through a system for selective waste collection set up by some companies.”

According to the data from the website of the Environmental Protection Agency, for the time being, only Hemosan has received a permit for the export of hazardous waste this year. During the last year, in addition to this company, the following companies: Valgo Montenegro (a company specialized in the export of land and stone containing dangerous substances), Matej-Cetinje (specialized for waste mineral oils), and SS Alga Nikšić (specialized for waste lead batteries filled with acid) had permits as well.

“During the last year, permits were issued for the export of 3,000 tons of accumulators and batteries,” Bojan Basanovic from the Environmental Protection Agency told CIN-CG/Monitor. Most often, waste accumulators are exported to Austria, Slovenia, Serbia, Bulgaria, and the Czech Republic. According to the current classification, the Agency does not have data on how much it refers to household batteries.

The Agency notes that there is no official company in Montenegro that deals with the processing (treatment) of batteries and lead batteries. Hemosan explains that the recycling process involves a physical process of treating used batteries and usually consists of “sorting, magnetic separation, disassembly and grinding (crushing)”. Metal residues can be processed by various processes, pyrometallurgical or hydrometallurgical. The products of these processes are metal alloys or solutions containing metal ions.

In the National Strategy for Transposition Implementation and Enforcement of the EU

Acquis on Environment and Climate Change 2016-2020, it is pointed out that “basic principles of waste management that EU waste management is based on, even though integrated into the National Waste Management Strategy and National Plan for Waste Management, are still not fully applied in the system of waste management in Montenegro”.

This document states that the requirements set out in Directive 93/86/EEC (batteries labeling) have not been transposed into the legal system of Montenegro, while they have been partly transposed by Directive 2006/66/EC (batteries and accumulators).

The most important objective of the 2006 Directive is that “The Member States shall, having regard to the environmental impact of transport, take necessary measures to maximize the separate collection of waste batteries and accumulators and to minimize the disposal of batteries and accumulators as mixed municipal waste as to achieve a high level of recycling for all waste batteries and accumulators”. The minimum collection rates to be achieved by the Member States were also prescribed: 25 percent by September 26, 2012, 45 percent by 2016.

Montenegro has practically not even started

Battery acid is dangerous for the skin and eyes

In the case of battery leakage, take precautions to ensure that battery acid does not come into contact with skin or eyes. Otherwise, you will have to ask for medical help, the website from Serbia for the online sale of batteries warns. Batteries, as it is stated, contain various chemicals, some of which can be aggressive or dangerous to health.

Keep batteries out of children’s reach, thus eliminating the danger of swallowing them and poisoning. Do not dispose of it in the fire. Doing so may generate toxic gases and vapors during combustion. Do not charge non-rechargeable batteries. Do not open or disassemble, some of the substances inside (e.g. lithium) can be explosive in contact with air”, it is stated in the warning.

When asked what to do with used batteries, this site recommends not to throw them with other waste, because they contain heavy metals that can greatly pollute the soil and water, and afterward end up in food and endanger health.

“Take used batteries, regardless of their type or purpose, to one of the specialized stores. The majority of such stores have the authority to collect used batteries and hand them over to recycling centers.”

yet. The data published in December last year by the Ministry of Sustainable Development and Tourism in the National Implementation Plan of the Minamata Convention on Mercury for the period 2021-2025 also show that immediate action should be taken. It states that the main source of mercury discharge is illegal disposal of municipal waste (940 kg of mercury per year) and waste disposal (692 kg of mercury per year).

According to the Regulation on the manner and procedure for the establishment of the system of taking, collecting, and treatment of waste deriving from batteries and accumulators and on the system functions from June 2012, distributors have numerous obligations that they do not respect. At the point of sale, they should collect waste portable batteries and accumulators free of charge, regardless of their origin and without conditioning the purchase of a new portable battery or accumulator. Containers for separate collection and temporary storage of collected waste portable batteries and accumulators should be placed and visibly marked.

“The Law on Waste Management stipulates the obligation for importers/producers to establish a joint system for collection and storage of used products and packaging. Unfortunately, these systems are not organized”, Zarubica says.

“We have no clue about that,” workers at the Idea supermarket in Podgorica wondered when we asked them if we could leave used batteries there. At the Voli supermarket, they said we had to talk to the management, who referred us to their Board of Directors. Answers to CIN-CG/Monitor questions remained unanswered.

Over the past year, research by the large Swedish company IKEA has shown that if batteries are not properly destroyed, they have an immeasurable and long-term impact on the environment due to their content. It was decided to remove all alkaline batteries from use and sale by October 2021 and replace them with rechargeable ones, which are significantly less harmful to the environment.

Bader also takes fewer batteries to Germany: “I replaced everything with rechargeable batteries in the house and apartments. It was quite an investment, but it pays off over time. That’s the way of protecting nature and health as well. ”

Andrea JELIĆ
Predrag NIKOLIĆ



COVID-19: INFECTIOUS WASTE
DISPOSAL AND PROTECTION EQUIPMENT:
SPECIAL CAUTION NEEDED:

CAREFULLY WITH GLOVES AND MASKS

THE GLOVES ARE THE LAST PIECE OF EQUIPMENT TO TAKE OFF IN THE HOUSE, WHILE IN HOSPITALS THE ORDER IS REVERSED. THE LAST ONE IS A MASK, BUT TWO PAIRS OF GLOVES ARE WORN AND THE HANDS ARE DISINFECTED BETWEEN EACH PIECE OF EQUIPMENT REMOVED. THOSE ARE THE RECOMMENDATIONS FROM THE INSTITUTE OF PUBLIC HEALTH. THE CENTRE OF INVESTIGATIVE JOURNALISM OF MONTENEGRO (CIN-CG) HAS BEEN ADVISED THAT US ADHERES TO RECOMMENDATIONS VALID TO DATE, WHILE THE EU IS PREPARING A NEW PROTOCOL.

The Institute of Public Health of Montenegro (IPH) has warned that when masks and gloves upon return home are put away, they should never be left at arm's length.

"It is important not to leave the used equipment on the surfaces, especially not on the kitchen cabinets and tables, but to immediately dispose of any protective equipment after its use. At home, gloves are last removed and hands are washed immediately afterwards. In healthcare institutions, the order is different. The last one is always a mask, two pairs of gloves are worn and the hands are disinfected between removals of each piece of equipment"- the Institute recommended, answering CIN-CG's questions.

Waste generated during the care of suspected and confirmed cases of COVID-19, according to IPH should be disposed of as infectious, with no additional control measures required.

The Inspection Affairs Authority told CIN-CG that everyone involved in the process has been warned to pay extra attention to the proper disposal of infectious medical waste.

Head of the Operational Section of the National Coordinating Body for Communicable Diseases Mrs Vesna Miranović emphasized that quarantine waste disposal is "an extremely demanding project involving hundreds of people on a daily basis".

"The waste is placed in a single bag in the quarantine room. It is then disposed of in another closed bag, and all the common waste is put at one place. The companies then come, collect it appropriately and take it to a place where it is permanently destroyed. We have taken care of each segment", Miranovic said at a news conference.

At the same conference, IPH Assistant Director Dr Senad Begić added that there is currently no scientific evidence that municipal waste from a person positive for the virus poses a threat to the environment, but that they have nevertheless increased precautionary measures.

The IPH site includes the following recommendations for the waste management of suspected COVID-19 cases: care must be taken not to contaminate hands when removing gloves, which means that the outside of gloves, which should always be "regarded as contaminated", must not be touched. Good hand hygiene is also a must.

According to the company Ekomedika, in the first quarter of this year, "due to seasonal winter infections", around thirty tons of infectious waste has been taken from medical institutions.

Infectious waste accounts for approximately 80 percent of all medical waste. It also contains microorganisms that can cause disease in humans. It is made up, among other things, of materials and things that have been in contact with an infectious patient.

"We expect a slight increase in quantities in the coming period due to the current situation", Stojanka Šolaja, a representative of this company specializing in medical waste treatment, told CIN-CG.

Although the materials that have been in contact with infected patients or health care workers who have taken care of these patients are treated "in the same way as all infectious waste" in terms of selection, safe packaging and transportation, she points out that they are, nevertheless, more cautious.

"We have taken extra precautionary and disinfection measures while over-taking infectious waste packages at delivery, and added new packaging layers. It is the recommendation by the Institute of Public Health to disinfect and increase wearing of protective equipment, as a form of prevention. We follow all the IPH recommendations and those of other reference institutions" Šolaja said.

The Clinical Center of Montenegro (CCM), in which the first victims of the COVID-19 passed away, did not reply to CIN-CG whether they disposed of the used medical materials and equipment in a standard manner, or in accordance with some new special procedures.

However, they explained that the management of medical waste begins when health care is provided by means of proper classification in a "cost-effective manner that minimizes health and environmental risk" and that it is carried out by trained staff using adequate packaging.

"The waste is classified in packaging units adapted to its characteristics, quantity, method of temporary disposal, and transport to the final treatment. Bag holders, or waste bins, are installed in all places where medical and municipal waste are generated at the same time. All used sharp objects, including needles, are collected in specially designed hard plastic disposable packaging. Packages are filled up to two-thirds of the total volume, and are marked with labels on which the date and place of waste generation (wards, dispensary, hall...) and the signature of the responsible person who handles it are required", they explained to CIN-CG.

Waste bags are transported by special trolleys to a treatment site - a medical waste treatment plant within the CCM, or to a

Ekomedika company: Higher costs

"Costs are certainly higher due to increased security measures and increased consumption of protective equipment, disinfectants, multiple visits, changes of working hours and on-call duty, and it is realistic to expect higher consumption of certain consumables. In the current situation, the necessary measures must be taken to deal with the new situation as successfully as possible", Rade Djikanovic, head of the Processing Center at Ekomedika, told CIN-CG.

He explained that the producer of medical waste is obliged to distribute it properly at the place of origin, place it in appropriate packaging, pack it, label it and then place it in a temporary storage area. Pick-up and transport are accompanied by an appropriate form containing information on the producer, type and quantity and other technical details.

Ekomedika, which has been performing this job since 2011, has five trucks and two smaller vehicles. All of them are equipped to guarantee safe loading and unloading, as well as safe transportation. Emergency circuit breakers and disinfection are also provided. Djikanovic notes that additional preventive and protective measures are being taken when transporting infectious waste. This also means disinfecting the packaging of prepared waste at the point of pick-up and the additional packaging.

Djikanovic also explains that the treatment of infectious and sharp medical waste is done by sterilization, a process that destroys all microorganisms and battery spores. In that process, there is no combustion, no operation under increased pressure, no use of chemical substances, microwave radiation and the like.

"Waste weight is reduced by about 30 percent, waste volume by about 50 percent. Technology is "ecofriendly". The process is automated and one treatment cycle of about 100 kilograms of waste takes 30 minutes", said Djikanovic.

He points out that the generated waste has the characteristics of mixed municipal waste, it is of an unrecognizable form, hazardous properties have been removed and it is disposed of as such.

municipal waste disposal site.

"This transport is performed by employees who maintain cleanliness. The trolleys are cleaned daily after waste removal" the Clinical Center answered.

The Inspection Affairs Authority (IAA) confirmed to CIN-CG that their ecological inspection has controlled since January "certain entities that generate medical waste while performing their activities."

"Since the beginning of 2020, several decisions have been adopted in order to eliminate irregularities, which primarily concerned the submission of data on generated quantities of medical waste during 2019 to the Agency for Nature and Environmental Protection," the IAA replied.

IAA's public relations department claims that, due to the spread of the COVID-19, they had warned everyone "from manufacturers, collectors, processors and others that they must pay extra attention to the proper separation, packaging and disposal of this type of waste".

For possible non-compliance with these obligations, the Law on Waste Management stipulates misdemeanor fines for legal entities of up to 40,000 euros, and for responsible persons up to 4,000 euros," IAA explained.

Podgorica's Public utility "Cleanliness" has confirmed to CIN-CG that they are also taking

over the waste from the infected people.

"Employees of the Public utility, with adequate protective equipment, and in accordance with a pre-established procedure, take over the waste directly in front of the housing units of persons confirmed to be ill with COVID-19. Before that, the disinfection of waste, which is properly packed in multiple bags, is carried out by the Institute of Public Health. The waste collected in this way is taken away by a specially designed vehicle to a company that is authorized for the proper treatment of medical waste," the Communal Service explained.

Public utility from Ulcinj claims that they adhere to the instructions received from the Institute of Public Health.

"Every day, workers get new masks and gloves for field work. The places around containers are covered or disinfected with gas lime and the trucks are washed and disinfected with chlorine", Skender Kalezici, head of this company, said.

The management of Public utility from Niksic also confirmed that all workers are obliged to use protective masks over their faces and gloves for preventive reasons. Workers carry out their work by "hooking the municipal waste container to the truck and emptying it with the help of hydraulics so they have no

contact with the waste in the containers.”

Public utility from Tivat explained that they had distributed “masks that were sewn by local tailors” to their workers and that each of them “uses thick rubber gloves as protective equipment, which are disinfected with aseptol at the end of each shift”. Containers and surface area around them, as well as garbage trucks and streets, are disinfected with chlorine.

Special procedures have also been introduced in large retail chains. At the end of the shift, workers at “Voli” supermarkets dispose of protective masks and gloves in a specially designed hermetically sealed bag. The rest of the waste is taken over by the Public utility company, Olivera Suskavcevic, a public relations representative of the company, told CIN-CG.

She emphasized that in order to protect consumers in all markets, warehouses and the complete logistics system, the company implements enhanced hygiene and sanitary measures in accordance with the recommendations of the competent institutions.

“Transparent plexiglas partitions have been installed in the markets, which will reduce the daily contact between employees and consumers at the cash registers. Our workers are equipped with gloves and masks, and a dispensary with fluid for hand disinfection is prominently displayed in all markets” Suskavcevic said.

The “Franca” market company also told CIN-CG that they are trying to protect employees and customers in the best possible way.

“From day one, since the use of masks and gloves is required, all employees have been explained how to use them properly. Hygiene in all facilities is at the highest possible level in order to prevent contamination of employees in the workplace”, Franca marketing department said.

Protective equipment is also provided to employees in markets, bakeries and pharmacies.

The measures taken in Montenegro are no different from those in the region and the rest of the world.

The US Center for Disease Control and Prevention (CDC) said that the medical waste originating from healthcare facilities that treat patients with COVID-19 is no different than other infectious waste. The CDC also provided instructions to its medical workers, similar to those of the Montenegrin Institute of Public Health, explaining step by step how not to touch the outside of the glove or the front of the mask.

More work when vaccines arrive

The amount of medical waste has also increased in Bosnia and Herzegovina - Alen Nogic from Aida Commerce points out.

“There is a certain decrease in secondary medicine (dentists, aesthetic, surgery, fertilization, etc.), which is quite normal because it works at reduced capacity, or not at all. Primary medicine itself is recording an increase in the amount of waste due to the new situation, although the awareness of those who make the selection at the place of its generation is also being raised”, he told CIN-CG.

As he points out, in the process of medical waste treatment nothing is left to chance.

“The disposal process is performed at a temperature of maximum 166 degrees Celsius, so that there is no case of virus resistance”, he said.

The growth of infectious medical waste is also expected at Zagreb-based Recol, a company that has been treating it for 25 years and has hundreds of clients across Croatia.

“Like everywhere else, Croatia lacks medical equipment, so our doctors must be rational, which reduces the amount of waste itself. The fact is that a large number of people will have to be vaccinated when we get vaccines. Then, a slight increase in infectious waste can be expected”, Bojan Breberina, a representative of the company, told CIN-CG.

Although no specific measures have yet been prescribed in the management of infectious waste in the European Union countries, the Croatian Ministry of Environmental Protection and Energy stated to CIN-CG that they have been working on it.

“With regard to different rules regarding the disposal of medical waste associated with suspected or confirmed cases of COVID-19, or medical workers treating those patients, a protocol is currently being developed at EU level for the collection and disposal of household waste of suspected or confirmed cases. The Republic of Croatia participates in its elaboration and will, upon its completion, apply it. “There are currently no specific national protocols for household waste”, Đurđica Požgaj, head of Department for Waste, told CIN-CG.

As for the health care facilities, she added that Croatia complies with the policies, according to which infectious waste must be collected separately and should not be disposed of; rather it should be sterilized and treated in appropriate “incineration or energy

generation” devices.

Dragan Mladenovic, from the Serbian Environmental Protection Agency, said that in Serbia 3.7 thousand tons of medical waste was generated in 2018, out of which 3.4 thousand tons was hazardous infectious waste.

“All waste generated by patients who are infected with the COVID-19 represents a dangerous infectious medical waste and as such must be sterilized before being dumped”, Mladenovic emphasized.

Miloš RUDOVIĆ



IF IT RAINS, ALL WILL BE WELL

ONE FIREFIGHTING PLANE THAT CAN FLY,
ANOTHER ONE THAT IS BEING SERVICED
IN GERMANY, AND A HELICOPTER
IN PERSPECTIVE IS THE WHOLE
FIREFIGHTING AIRCRAFT THAT THE
DIRECTORATE FOR SAFETY AND RESCUE
(DPR) CAN COUNT ON THROUGHOUT THIS
YEAR'S FIRE SEASON.

It seems that this year again, firefighters will be looking towards the sky, rather than towards their scarce equipment, which is seldom renewed.

Although Montenegro's protection and rescue system prides itself on successfully preventing human losses, wildfires cause several hundred million euros worth of damage.

According to the EFFIS, Montenegro suffers an average loss of more than 180 km² of forestland, and protected areas are no exception. That is a significantly higher figure than that of many times larger France, where fire annually swallows up approx. 110 km² of forest area.

From The Forest Service, they state that the surface of the "burned forest area in state and private ownership" for the last decade is half the number of EFFIS- 901, 39 km².

Despite the difference in figures and calculation methods, in Montenegro, which is still considered to be the country with high forestland percentage, wildfires, as well as illegal logging threaten to change ecosystem and micro-climate.

Protection from the wildfires, which swallow up great spaces, isn't in any way better prepared compared to the previous years. Specialized unit for the wildfire suppression, like some neighboring countries have, is still not on the horizon.

The majority of the wildfires are set by people, but long and ineffective investigations and the scarce and light sanctions don't seem to discourage arsonists, showed the investigation of the Centre of Investigative Journalism of Montenegro (CIN-CG).

At the moment, Montenegro has only one working fire airplane, "air-tractor", on disposal. Of another two that the Directorate for Protection and Safety owns, it is possible to count on one, which is currently serviced in Germany, until the beginning of fire season. The third one is useless, according to Zoran Miljanic, state secretary of the Ministry of Internal Affairs (MIA), so that "MIA would begin negotiations with the Government about the procurement of 10 million worth multi-purpose helicopter".

Two helicopters MIA currently has on the disposal date back to the 70s, and the "youngest" one is from 1998. Therefore, the first goal of DSR under the new management would be upgrading the used-up aircraft unit, Miljanic told CIN-CG.

Still, the reinforcement can't be expected during the ongoing season.

"MIA will propose the helicopter procurement to the Government only after the budget adoption. We will also apply for international donations, which would be the best way for the funding.", Miljanic explained.

He states that, as before, the municipalities

will be in charge of funding human and material resources of the local services for protection and rescue. MIA and the army will help during the season, when the resources of the local services deplete, while the international assistance will contribute only if the state's capacities turn out to be insufficient.

Still, Miljanic announced readiness of DSR to hear all the complaints and solve the issues they are in charge of.

Big funding, even bigger damage

According to the Wildfires Report by the State Audit Commission, fire damage for the period between 2012-2018 is more than six million euros. However, non-governmental organization KOD, published in their Forestry Brochure the results of their own damage assessment, using EU criteria, according to which the total damage amounts to 700 million euros.

Vuk Iković, biologist and member of KOD, explained that the difference in figures is the consequence of methodology that in Montenegro officially calculates only direct damage, which is the loss of wood mass, while the indirect damage is incomparably higher.

Wildfires damages are classified as direct and indirect, while the total damage is the sum of both, Iković told CIN-CG.

He states that wildfires cause the forest to lose its crucial value for humans- oxygen production, while many species permanently lose their habitats and food sources.

"It takes at least 40 years for the forest to recover from a wildfire. Fire causes instant vanishing of everything that have been forming for the decades, or even centuries, while the land loses its biomass, becoming permanently barren.", Iković told CIN-CG.

Nusret Kalač, recently removed as director of Forest Service, states that it is not their responsibility to take care of ecological losses, but only economic ones.

According to KOD, throughout the last decade, the budget of DSR has been increasing, while the wildfires damage has been on the rise.

"DSR's budgeted for 2012 was 1.962.389, 27 eur, and in 2019 it raised to 3.497.529, 33 eur, while the burned area from 2011 to 2013 is smaller compared to the 2017- 2019 period. (564 km², compared to 673 km²)", it is stated in KOD's Forestry Brochure.

From DSR, it's been told to CIN-CG, that the budget has been spent on payments of wages, contributions, equipment and maintenance costs, and various money transfers for which they didn't state identities of recipients, aviation unit taxes, civil protection campaign costs, system

CALL 112

From the Forest Service, they state that in the case of wildfire, they count on 190 rangers, 80 guards, and in the case of firefighting, all of 130 engineers and technicians are obliged to help. Besides the two tanks of 10 cubic, they have 250 hydration packs, 150 fire brooms, cars for the transport, and tools. On the meeting with the Government, on the May 12th, it's been decided for them to deliver the list of the equipment they lack. They warned the forest users to behave responsibly, organized duties in the management units and activated an alert system- unique call number of the Operative-communication center- 112.

upgrading, etc.

Environmental crime still not recognized

Iković states that the wildfires are mostly human-caused, arising from burning for land clearing, mushroom growth, land development, or for the purpose of covering up the illegal logging.

According to him, the lack of a legal framework with regard to wildfires prosecution and environmental crime, in general, significantly contributes to the greater number of wildfires.

Basic State Prosecutor in Podgorica told CIN-CG that there's no record of wildfires per se, as this is not a separate offense. Instead, wildfires fall under the category of offenses causing danger. Unlike Basic State Prosecutors in other municipalities, Podgorica BSP didn't send their records on wildfires to CIN-CG.

While the information from other BSPs for the period of 2010- 2020, show a very low rate of persecutions, Forest Service recorded 1001 cases of wildfires during the same period.

Therefore, though there have been 222 cases in Pljevlja, local BSP had only three cases, which all ended without the sentence.

The greatest number of cases regarding wildfires throughout the last decade has been recorded in Bijelo Pole- eight of them. Two of them were concluded with the official note stating that there's no basis to proceed, three charges were dismissed, two cases are in progress, and one case is in the phase of the investigation.

Except for Podgorica, there have been only five prison sentences, two recommendations for psychiatric treatment, and two suspended sentences. The shortest prison sentence was 40 days, there were two six-months sentences, and

one of ten months, while the longest one was one-year sentence.

The forest land concession holders don't pay attention to the protection of wildfires, either.

According to the State Audit Commission's Report on Wildfires Protection Success from 2019. „No concession holder on the territory of Montenegro brought up the plan for wildfires prevention“. Penalties range from 500 to 10 000 euros. From Administration for Inspection Affairs, it hasn't been answered to CIN if forestry inspection controlled concession holders during 2020, whether any and how many of them were penalized.

National parks also endangered

Degree of disregard for the natural resources is obvious in the lack of the protection in National parks, where, despite the detailed plans, wildfires often break out.

Source of CIN-CG, an expert informed about the situation in national parks, states that the Tara canyon in NP Durmitor burned 12 years in row, until the 2019, which, consequently changed the structure of the forest.

Where there was a conifer forest, now there's deciduous one, and vice versa, said this source.

He explained that in the canyon of river Draga (NP Durmitor) it was not possible to execute deforestation of the burned forest, because it would lead to soil erosion, so the burned conifer forest stayed there, infeasible to regrow.

From The National Parks it's been told to CIN-CG, that since 2017, there hasn't been any damage from the wildfires. For the period from 2010 to 2017 possible- to- regrow burned area has been about 3.390 ha, while non- renewable amounts to 550 ha.

They didn't answer CIN's request to deliver data about damaged areas where the forest hasn't been completely burned or other burned ecosystems like swamps and maquis.

In September 2020, in NP Lake Skadarsko, a swamp area of 12, 13 km² burned for four days. From The National Parks, they explained that the area has been inaccessible, and for the cane-grass is easy to regrow species, there was no need for the damage assessment.

Bojan Zeković from The Center for Protection and Research of Birds of Montenegro states that the just like forests, swamps are highly endangered habitats, invaluable for biodiversity.

“Swamps are even worse off than forests, due to the general attitude that it is worthless territory- mosquitos and reed. But swamps are invaluable for the fight against the climate change, especially on Mediterranean that will be hit hard”, Zeković told CIN.

Firefighters lack basic conditions

Quite a few firefighters expressed their dissatisfaction with the working conditions in services.

“We are not ready for the season. We have ten water backpacks, but we need at least 50”, Goran Tripković, member of the service for protection and rescue (SPR) in Nikšić told CIN-CG.

This year, members of SPR Nikšić, got protective masks and boots for the wildfires, for the first time in more than 10 years. Procurement of the new uniforms has also begun, and it will be done by June.

“For years, we have been barely managing with uniforms more than 10 years old, which haven’t been properly maintained, and thus are highly toxic. Fire uniform has a limited shelf- life, even with the proper maintenance, for which there’s no equipment in Montenegro.”, Tripković told CIN- CG

Although SPR Nikšić has two high quality fire engines, Tripković states that they are unusable on Montenegrin terrain.

“In 2007, we have been given by DSR two Mercedes Unimog fire engines, tailor- made for German well build fire- roads, but only making our jobs harder.

From Directorate for Protection and Rescue, they denied impracticality of these engines and emphasized engines’ great firefighting capacity. They told CIN- CG that the procurement was made in agreement with then regional commanders for protection and rescue.

At the beginning of the current year, a new, significantly smaller vehicle, Nisan Navarra

has been procured, as told from Municipality of Nikšić to CIN- CG.

“This vehicle hasn’t been prepared for the wildfires yet, but still, it is not sufficient” said Tripković.

During the wildfires season, the goal is to protect civilians and property, states Slavko Tadić, also member of SPR Nikšić.

“In our circumstances, we barely manage that. We are waiting for Kornati to happen to us, so that someone pays attention, said Slavko referring to the tragedy on the Croatian islands of Koranti in 2007, when 12 firefighters fatally died during the wildfire suppression, and only one survived severe burns.

Tadić states that Montenegro lacks specialized response team for wildfires. He participated in one unsuccessful attempt by DSP to form such team in collaboration with EU. The goal was to form a fully equipped and trained team that would work with wildfires in hard-to- reach areas, according to the highest standards.

Although professional equipment has been provided for the trainees, they didn’t actually had access to it.

“Team has never been formed. Portable water pumps, hoses, firefighting wyes, water buckets for helicopters, and many other wildfires suppression equipment has never been used, and it is not known where it is stored.”, said Tadić.

From Directorate for Safety and Protection, they told CIN-CG that this equipment is supposedly stored in warehouses, as a part of the mandatory reserve.

As to why specialized unit has never been formed, they answered that due to the lack of

IN SLOVENIA, THEY ARE ALL “GAMSI”, WHEN NEEDED

The president of the professional firefighting association of Slovenia, Milan Korošak, states for CIN-CG that the decentralized system isn’t effective in Montenegro due to the lack of human resources and under-equipped SPRs.

In Slovenia, according to him, the whole system operates under the MIA, including volunteer fire associations, who work in synchronization.

The number of volunteer firefighters in Slovenia amounts to incredible 165 000, of which 35 000 qualify as professional firefighters, Volunteer Firefighters Association of Slovenia told CIN-CG.

“Putting out wildfire starts five minutes from the start of the fire, and all the citizens are working on the prevention”, states Korošak.

Professional services purchase new fire trucks every five to seven years, upon which they give them to the volunteer associations. Uniforms are procured every 5 years, and earlier if needed.

“Specialized company works with the uniforms, and examines the level of toxicity after each usage.”, said Korošak.

For the wildfires at inaccessible terrains, in Slovenia, there’s a specialized unit called The Gamsi, meaning chamois in Slovenian, which symbolizes their dexterity. They operate under the full equipment and stay on the terrain for days, when needed, said Korošak.

the training centre, Montenegro also lacks teams for responses to the various types of hazards.

Local services for rescue are also bothered by lack of personnel, state sources of CIN-CG.

Ratko Pejović, president of Firefighters' Trade Union of Montenegro, and member of SPR in Pljevlja, states that the number of 30 firefighters in the service is too small considering great forest areas, that often burn during the summer.

"Only three members stay on duty in the case of an urgent intervention.", states Pejović for CIN-CG.

Immolation instead of the civilian support unit

"Citizens who clear their land by fire, only need to make a call so we can send our patrol to safeguard the process, Predrag Milikić, a firefighter in the SPR unit in Podgorica and president of firefighting trade union at the Association of Trade Union, told CIN-CG.

Although SPR in Podgorica issues warnings every year, land owners usually don't call when burning the land, Milikić explained.

The citizens are ignorant of the importance of the timely intervention which is also obvious in the lack of wildfires reports, especially when they're far away from the houses.

Only six voluntary firefighting units and civil support unit "on the paper", confirm the lack of civil involvement in the process of the protection from wildfires.

From the DSR, they told CIN-CG, that during the previous 10 years, two attempts to establish

NOBODY'S AN EXPERT AFTER SIX HOURS TRAINING

Zlatko Ćirović states that he refused to send his unit on the training for hazardous substances "from 9 to 15h".

"One-day training for hazardous substances with two coffee breaks, won't transform anyone into an expert. If some hazard happens, I would have to send members of my unit and state that they have been trained. There are countless hazardous substances: chemical, nuclear, etc. and in Montenegro, we don't even have protective equipment for something like that."

Asked about the duration and implementation of this training, DSR answered that in the majority of municipalities there's no adequate personal or collective uniform, nor the adequate training that would continuously take place.

Civilian Support Unit failed due to the lack of funding and inability to find the appropriate unit members.

Miljanić states that there won't be waiting for civil support unit formation for another 10 years.

"We will decide very soon, whether to completely shut down the civil support sector, or to finally make it work.", said Miljanić.

Aerial assistance- ineffective

Zlatko Ćitović, engineer of the fire protection and commander of the SP unit in Herceg Novi told CIN-CG that the effectiveness of the three "air- tractors" Montenegro owns, is incomparable to that of the "canadairs", Montenegro lacks, but that were used in ex- Yugoslavia.

"Canadairs" can scoop up to 6000 l, while air tractor scoops up to 3000. Besides, "canadairs" are incomparably faster because they pick up water while flying", he explained.

From DSR they told that they don't plan "canadairs" procurement, due to the high price, planes always being purchased in pair, and very high maintenance costs.

Milan Gazdić, forestry engineer, and one of the authors of the KOD brochure states that "if we have estimated the damage to be 700 million of euros, than "canadairs" are not an expensive option.

During 2017, when, from June to September there was a record number of 350 wildfires on the territory of Herceg Novi, the greatest contribution has been given by Croatian "canadairs", states Ćirović.

This was not a part of the international aid in MUP organization, but Ćirović's friends from SPR Dubrovnik answered his plea for help.

Ćirović told that the aircraft aid in 2017 was extremely unorganized, and waiting for the plane throughout the whole day, was not uncommon.

From DSR, they state that during the summer of 2017, 3125 wildfires were identified, and it was impossible to cover everything with their resources (one half- working and two working planes).

"Priorities were set according to the emergency level", they said.

Without the solid aircraft, during the critical situations, Montenegro will have to rely on international help, which is sometimes inadequate, such as was the case with the Ukrainian airplane in 2017, that didn't prove deft on Montenegrin terrain, states Ćirović.

According to the explanation from DSR, international aircraft aid in 2017 has been made of two planes from Israel, a helicopter from Bulgaria, a plane from Ukraine and a helicopter from Switzerland, with approx.30 members of crew. Costs amounted to approx. 70 000 euros, while the Switzerland team realized everything at its own expense.

BOAT OWNERS GAVE HAND

"I've never seen such a horror before. At the Cape of Veslo some 150- 200 tourists surrounded by the fire, and there's no chance to approach them", Zlatko Ćirović commander of the SSP Herceg Novi, recalled for CIN- CG the events of the July 17th 2017 night.

According to Ćirović, as the only possible way of evacuation was by sea, he contacted Maritime Security and Army of Montenegro for the help. However, the adequate reaction was missing, due to unpreparedness of these institutions to answer.

"Luckily, big enough number of people with private vessels gathered and started evacuation on the Cape of Veso", states Ćirović.

"The only thing we could do as the service for safety was to spread the message to those people to put some cloth on their face as the carbon monoxide protection."

Maritime Safety told CIN-CG, that their vessel needed some time to arrive, and that they ordered to the private vessel owners to participate in the action. They explained that they currently have only one fireboat, but they are working on improvement of their equipment.

Navy didn't answer the question, but they stated that they reached the beach in the early morning hours, and that the army helped later during that day.

Ćirović states that DSR behaved irresponsibly during the big fires in Luštica in 2017.

"They sent firefighters from other municipalities without the funding for accommodation and food, so that the whole organization fell on us, in the moment of the greatest crisis. We ate fast food and slept in front of the fire trucks, without any organized place for a break.", states Ćirović.

From DSR they told CN-CG that the costs of the firefighters' stay were covered by MIA, but in the case of the stays longer than one day, costs were the municipality's responsibility.

Learning from the EU countries

Gazdić states that responsible and unified operating can significantly reduce consequences of the wildfires. He worked on the wildfires forest protection on Sicily, where, according to him, the responsible institutional work led to multifold surface reduction of the burned area, while the number of wildfires stayed the same.

The first step is risk assessment and the making of detailed plans. Wildfires database, modeled on the European one, is also necessary.

"It encompasses all the information about wildfires risks and answers the main questions of wildfire emergence - who, when, how, where. We don't have such data", states Gazdić.

Modernization and new technologies are also necessary, as well as technology for wildfires tracking and prevention. Collaboration between the institutions such as The Forest Service, Police Department, judiciary, concession holders, safety and protection services is also necessary.

Gazdić also warned on the danger of climate changes and the requisite of adaptation by the systematic upgrade. "In the north of Montenegro there are already significant climate change consequences- due to drought there are hundreds of thousands cubics of dried trees.", states Gazdić.

Đurđa RADULović



GOVERNMENT DIDN'T INCLUDE BOKA
KOTORSKA IN MARINE PROTECTED AREAS:
**HABITATS RECEDE,
WHILE POLLUTION INVADES**

FOR THE TIME BEING, THE GOVERNMENT OF MONTENEGRO DOESN'T INTEND TO DECLARE BOKA KOTORSKA BAY AS A MARINE PROTECTED AREA, THOUGH A FEW RELEVANT SCIENTIFIC PAPERS RECOMMEND SUCH A STEP FOR THE SAKE OF BIODIVERSITY PRESERVATION. IN THIS YEAR, THREE SITES WERE DECLARED AS THE MPA - KATIČ, PLATAMINI, AND STARI ULCINJ.

Along the estuary of the river Bojana, the most significant biodiversity in Montenegro submarine is in the Bay of Boka Kotorska, as stated in National Biodiversity Strategy with Action Plan for the period from 2016 to 2020. The Government of Montenegro hasn't considered either of these sites for their MPA project.

The bay is under human pressure, threatening numerous species and valuable habitats. Excessive construction of ports and harbors, construction waste, high-frequency nautical traffic, energetic and sound pollution—all these things gravely impact marine life in Boka Kotorska bay.

“Sea bottom of Boka Bay is unique, not only at the level of the Adriatic but at the level of the whole of Mediterranean. It is because the seawater receives an influx of aboveground and underground freshwater, in a semi-closed bay,” an Italian expert in marine biology, who researched sea bottoms all around the world, told the Centre for Investigative Reporting of Montenegro (CIN-CG)

“If something is not done immediately, the bay is on the road to lose species and habitats with no return,” says Trainito.

As many as 20 of the most endangered species in the Mediterranean, as well as six species of priority habitats according to the European Habitats Directive, are located in the Bay. Boka is also extremely important for the cultivation of sardines and anchovies, priority species of the Mediterranean Commission for General Fisheries. All of this is stated in the capital study Ecological Quantitative Analysis of the Bay of Kotor from 2013, which is part of the international project of the United Nations Environment Program (UNEP) and the Regional Center for Specially Protected Areas (SPA-RAC) within the Barcelona Convention.

According to this research, Bay fulfills biological criteria to become part of the Barcelona Convention list *Specially Protected Areas of Mediterranean Importance* (SPAMI). From the SPA-RAC center, they explained to CIN-CG the importance of the SPAMI list. Namely, from more than 1000 MPA-s on the Mediterranean, just 39 are on the SPAMI list.

Barcelona Conventhichn, which Montenegro signed, is the main document for the protection of the Mediterranean sea.

The Ministry of Ecology, Spatial Planning and Urbanism (MEPPU), which is responsible for the MPA project, believes that there are no arguments for such protection when it comes to Boka. “Most of the sea bottom of the bay, in the biological sense, consists of terrigenous muds that are poor in species. Compared to terrestrial

habitats, they would suit deserts. These habitats are important, but from the standpoint of protection, they are not a priority”, Danilo Mrdak, state secretary of MEPPU, told CIN-CG

The most valuable locations on Montenegrin sea are already recognized and announced as MPA, states Mrdak.

“Biologically speaking, arguments against the protection of the bay do not exist. Ignorance or, I would say, great economic interests in a small area, make protection very challenging but no less important,” Vesna Mačić, a biologist at Institute for the Marine Biology from Kotor states for CIN-CG. “Reasons due to which the bay hasn't been protected are purely political,” she states.

Several studies have proven that many valuable habitats and species in the bay are in the process of regression, that is reduction of area or abundance. This is the case with coral habitats, which are rapidly disappearing throughout the Mediterranean, largely due to climate change and human pressure.

“According to the European Habitats Directive, corals are not only protected but also priority habitats, which means that it is our utmost obligation to protect them,” says Mačić.

In 2019, the Italian expert Trainito participated in the research of coral habitats in the bay. Research led to the remains of a coral reef, which is believed to have existed until about 40 years ago, but was mostly destroyed. “How rare this coral is, proves the fact that a similar reef in the Mediterranean could only be found on the Italian coast, in the region of Apulia,” says this expert.

The golden coral is also insufficiently protected, considering that it is the most valuable habitat in the bay, which to the same extent can only be found on the Canary Islands. According to Trainito, it would be necessary for the location with the golden coral to be a nature reserve, the so-called no-take zone, accessible only to scientists for research.

The government of Montenegro recognized the importance of the golden coral and established a regime of preventive protection in the places of Sopot and Dražin Vrt, enclosing those sites with buoys.

“The future conservation study will provide all the necessary details if we decide to go in the direction of declaring MPA-s on these two sites,” claims Mrdak

“To prevent the negative effects of anchoring and fishing, it is not enough to fence those locations. The sea is not the land, where it is possible to block the negative effects by putting fence, especially in the bay, where the effects of pollution are much greater than on the high seas,” said Mačić. She believes that golden coral

itself would be a reason enough to protect the entire bay. There are many other reasons - healing mud in Igalo, and rare and protected species and habitats, such as types of seagrass *Posidonia oceanica*, *Cymodocea nodosa*, *Zostera noltei*, which have been in great regression in recent years, mainly due to anchoring and pier construction.

Scientific paper *The Marine Biodiversity Boka Kotorska* from 2014 states that the grass *Posidonia oceanica*, an endemic species of the Mediterranean, has almost completely disappeared in the bay. The entire habitats that were identified earlier have not been found in recent research.

„European Habitats Directive, as well as Montenegrin law and several international conventions Montenegro ratified all state that the highest level of protection of *Posidonia* is required. That means that the protection of that kind is not a matter of choice, but an obligation“, warns Mačić. Back in 2001, she participated in a study that warned of the decline of *Posidonia*'s habitat.

She adds that there are other localities where habitat protection is necessary, such as the seabed around the islands of Our Lady of Skrpjela and St. George, St. Mark, Strp,

St. Stasije, Our Lady of the Angels, Turkish Cape, Sveta Nedjelja. “At each of the listed locations in the bay, at least 20 to 50 protected or endangered species have been discovered, and most importantly - the withdrawal of one species causes a whole series of chain consequences,” claims Mačić.

“Although I am an ichthyologist, to my great regret, the fish species that live in the Bay of Kotor are not recognized as those that need conservation. In terms of ichthyology, precisely because of the relative uniformity and a small number of habitats, the Bay of Kotor is poorer in fish species than other parts of our sea that occupy an open position where there is a slightly greater diversity of habitats,” claims Mrdak, who is an ichthyologist by profession - expert in fish species.

„It is important to emphasize that fish are only a part of marine biodiversity, which is made up of a variety of organisms,” states Trainito. He explains that the regression of fish in the bay happens, at least partially, due to various types of pollution.

CIN-CG has previously written about the endangerment of the noble pen shell (*Pinna Nobili*), which is typical for the Mediterranean. The Bay of Kotor was the only autochthonous

WASTE AND CONSTRUCTION WREAK HAVOC ON HABITATS

In a 2019 bottom habitat research conducted by Egidio Trainito, it is stated that the Turkish Cape site, near the Straits of Verige, although rich in coral habitats can't be protected due to the large amount of waste that was impossible to remove.

“Huge amounts of plastic, remains of vans, cars, stoves, machines, and other types of waste in the waters of the Verige have significantly weakened habitats,” explains Trainito.

A large amount of construction waste that destroyed the entire sea bottom was also recorded in Tivat Bay during the 2014 research.

Trainito emphasizes the importance of fencing the bay with nets used to protect the sea in places where the water is close to roads or construction sites.

“It would be an expensive investment, but it would significantly improve the situation,” he said.

“The problem is also the construction of concrete piers that destroy valuable seagrass on the edges of the bay. Apart from the fact that concrete is harmful in itself, anchoring is fatal for the habitats at the bottom,” claims Mačić.

The construction of a yachting service in Bijela is in plans, and the previous government approved the construction of a port in Risan. All this can have a detrimental effect on habitats, say the interlocutors of CIN-CG.

“The construction of the port of Tivat has permanently weakened habitats and completely disrupted natural currents in that part of the bay,” claims Trainito.

Macic also warns that the construction of a cruise-ship port, which the former government planned in the Risan Bay, should be reconsidered. “Building that port would be an unreasonable and irresponsible act, likely to cause much more damage to the living world than it has been the case so far.”

The Environmental Protection Agency states that none of these projects had an environmental impact assessment and that this was the responsibility of the project contractor. “Of the marinas in Boka, impact assessments were performed exclusively for the marinas Porto Novi (Kumbor) and Porto Montenegro (Tivat),” they said.

habitat of this shell in Montenegro, but it has been dying out en masse for several years due to parasites, on the Mediterranean level. This year, it has been declared *critically endangered* by the International Union for Conservation of Nature (IUCN), which means that the species is in the final stage before the definitive extinction.

Nautical Tourism – the source of income we are paying price for

“If there were objective reasons, I would be the first to advocate the conservation of the Boka Kotorska Bay. We must understand that it is necessary to meet the criteria when something is placed under protection. It is not a result of someone’s wishes or sympathies, but a consequence of dedicated work on mapping species and habitats that are relevant for conservation”, claims Mrdak.

The Tourism Development Strategy of Montenegro envisages the Bay of Kotor as an important destination for cruising and yachting tourism, which also represents a great threat to the preservation of biodiversity. Therefore, nautical traffic is generally restricted in marine protected areas.

“According to the Tourism Development Strategy, nautical tourism is recognized as a development opportunity for Montenegro,” Ivana Đurović, State Secretary for Tourism, told CIN-CG. “By strategic planning and construction of numerous modern marinas, Montenegro can become one of the centers of nautical tourism,” she explained. According to Đurović, only in 2019, our country earned over 164 thousand euros from the payment of the excursion tax from cruise ships.

In 2019, Kotor was the third most visited port by cruise ships in Europe. With seven ports of local importance and two of national importance, the bay has the largest nautical traffic in Montenegro.

No environmental impact assessment studies have been conducted in Montenegro on nautical tourism, both of cruise ships and the impact of smaller vessels and an increasing number of ports and harbors.

“We don’t know whether a study assessing the impact of cruising tourism in the Bay will be done in the future.” Claims the Environmental Protection Agency. They clarified that such a thing is not under their jurisdiction, as neither is the assessment of the impact of the construction of ports and docks. The project holders are in charge of that.

During this year, a study by the well-known European expert Hrvoje Carić on the influence of heavy metals from cruise ship hulls

was published. The research proved that the substances from the hull are posing a threat especially to the bay environment, where there is less water flow than in the high sea. The concentration of eco-toxic copper in the bays increases by 25 times, compared to the open sea. Record levels of copper were recorded at the peak of the tourist season and higher sea temperatures.

Considering the isolation of the Bay of Kotor, the warmth of the water during the summer months, the record number of cruisers, and the fact that the water in the bay is rarely renewed, pollution with eco-toxic copper could be another issue to worry about.

Eco-toxic copper halts photosynthesis of sea beds, prevents the development of larvae, causes genetic changes in certain species, and is deposited in marine fish, turtles, snails, and mussels, according to Caric’s study.

CIN-CG previously wrote about the negative impact of cruising tourism on the sensitive bay - the risk of wastewater, noise pollution that scares animals, the sludge that cruisers raise preventing the photo-synthesis of organisms.

In the last few years, Boka has been under additional pressure due to the intensive construction of docks, private piers, and beaches. Plans include Port of Risan construction, the yachting service, and further expansion of nautical tourism.

Oil platforms near the Bay - a nightmare for biodiversity

Besides all of these problems drastically affecting biodiversity, oil platforms could be set up at the very entrance of the Bay, when Croatia and Montenegro resolve the border dispute on Prevlaka. “Oil and gas deposits are in the center of Prevlaka issue, although two countries may not openly state that,” law professor Nebojsa Vučinić, former head of the Montenegrin government’s expert group for negotiations on the Prevlaka peninsula, told CIN-CG.

Vučinić emphasizes that oil and gas research, conducted in the former Yugoslavia, suggested that valuable deposits could be found in the maritime territory disputed by Montenegro and Croatia - between Cape Ostro and the island of Mamula, directly at the entrance to the bay.

Although the sea border between Montenegro and Croatia is not defined, a large number of companies that wanted to explore oil and gas in Montenegro, also showed interest in the blocks near Prevlaka, precisely because of the research done during the Republic of Yugoslavia, when an oil layer about 20 meters wide was found, “the Ministry of Capital

Investments (MKI) told CIN-CG.

If it turns out that there are economically viable quantities of oil and gas, the two countries would agree on whether to exploit and share the quantities of oil and gas that belong to them," states MKI.

Mačić explains that potential pollution from oil platforms would be the end of the bay. "The water in the bay is renewed once in 50 to 100 years," she explained.

"Even pollution from a possible spill in Ulcinj would be a tragedy for the bay, due to its shape," said Mačić.

Besides that, The bay with its surroundings is under the protection of UNESCO, which may raise the legal issue of oil platforms at the site of Prevlaka, emphasized Mačić.

Dušan Varda, a biologist and environmental activist who has advocated for the establishment of marine protected areas in Montenegro for years, claims that the effects of oil exploration are disastrous even if black spill scenarios never happen.

"The underwater noise pollution that these researches produce is enormous, and the sound waves of the research that started in Ulcinj spread to the Libyan seas," he told CIN-CG.

"We have to give up fantasies about the absolute protection of everything and fantasies to eventually turn into one big national park." It is neither practical nor sustainable and is a caricature of protection. No country in the world does that. "It is necessary to find compromise solutions meaning that the most valuable areas are protected and to define a model of maximum protection and minimum exploitation in those zones, for them to survive," said State Secretary Mrdak.

Mačić believes that a compromise is not always possible. "All these activities and protection in a small area of the bay don't go hand in hand. It's like trying to have a retirement home and a disco at the same place. "

MEPPU - New project for Boka

The State Audit Institution (DRI) is dealing with the issue of possible dangers in Boka from pollution with oils and harmful substances from ships. *The Audit of the Success of Intervention Management in the Case of Sudden Pollution in the Adriatic Sea*, published by the SAI in 2021, points out that no research on harmful pressures on the bay has been conducted since 2012.

"In the following period, the Ministry will work on reducing the risk of pollution in the Bay of Kotor in accordance with recommendations," explained Ivana Stojanović, head of the Directorate for Integrated Management of Marine and Terrestrial Ecosystems of MEPPU.

TECHNOLOGY DESTRUCTIVE TO HABITATS

The construction of luxury resorts on the coast that regulates the temperature of the space on the principle of energy exchange with seawater, damages seabed habitats. These devices use the heat of the sea in winter and release heat into the sea in summer, thus disrupting the natural temperature of seawater, which is up to two degrees warmer in the summer and just as cold in winter. This temperature difference can be fatal for marine organisms, especially for coral habitats. "Only half a degree is enough to disrupt the reproduction of corals," said Mačić.

In Boka, such plants already exist in Kumbor - in One and Only resort in Portonovi.

She explained that the SAI's recommendations will be addressed in a new project by the Ministry, funded by the United Nations Environment Program, in co-operation with Pap-Rak, the regional center of the Barcelona Convention in Croatia.

"During this program, a local integrated management plan for the Boka area will be made. The bay was chosen as a pilot area, precisely because of all its features and numerous pressures. The emphasis will be on the integration of measures for adaptation to climate change into the plan, but everything else will be also taken into account," claims Stojanović.

Such projects are a positive thing, but they do not lead to complete protection of the Boka submarine, experts point out. Numerous similar projects have not yielded results for years when it comes to the protection of the Montenegrin marine areas. "There are already established priority recommendations for the bay, starting with the regulation of wastewater and the number of cruisers, defining places for anchorages and yachts, greater control of all these vessels, etc." These recommendations have already been clarified in several studies, but I do not see that anything is being done about it," says Mačić.

"In this area, people understand that cultural and historical treasures need to be protected, but they are not aware that they have equally valuable treasures underwater. The Bay of Kotor is an ideal model - it is a small Mediterranean sea: a basin under enormous human pressure

and immeasurable natural wealth. "Let's learn from this model - how to carry out numerous activities and still protect nature," said Trainito.

Not much attention was paid to nature here, previous governments were more interested in short-term interest, fast income from tourism, and unrestrained construction. The absence of Boka from the MPA project hints that in the future it will be the same.

Đurđa RADULOVIĆ



IN MONTENEGRO ENVIRONMENTAL INSPECTORS LACK TEETH TO ENFORCE LAW

SMALL FINES AND A RELUCTANCE TO PURSUE CRIMINAL PROSECUTION HAVE CONTRIBUTED TO A CULTURE OF IMPUNITY FOR COMPANIES BIG AND SMALL THAT IGNORE THE ORDERS OF ENVIRONMENTAL INSPECTORS.

On November 7, 2013, environmental inspectors in Montenegro ordered local wine producer *13. jul-Plantaze* to resolve the way it treats wastewater.

Two years later, having failed to comply, the company – which produces roughly 22 million kilos of grapes annually – was given a fine of 3,000 euros and a new deadline. When that deadline was missed, it was fined again, this time 4,000 euros. By December 2016, the fine was 5,000 euros, repeated in July 2017 and then again in February 2019.

And still the company, which claims to sell more than 16 million bottled products in over 40 countries around the world, did not comply with the order.

“The company has prepared project documentation for the wastewater treatment system, but large financial resources are needed to carry out the measures that have been ordered,” said chief environmental inspector Veselinka Zarubica.

13.jul-Plantaze said it had worked “intensively” on the issue and was waiting for “a stable financial situation” to resolve it.

“The whole time work is going on to optimise the solution for purifying wastewater, in order to find the most efficient and effective means of dealing with it,” the company said.

It is far from alone, however, in failing to act immediately on the orders of environmental inspectors in Montenegro, who rarely escalate cases beyond misdemeanour proceedings, according to the finding of an analysis by BIRN and the Centre for Investigative Journalism in Montenegro, CIN CG.

And it’s the water, land, air and people of Montenegro that are paying the highest price, say environmentalists.

“We have hundreds of examples that prove that the laws are just words on paper and that the system does not work”, said eco activist Aleksandar Dragicevic.

Fines having little effect

According to data obtained from the Judicial Council, since the beginning of 2016, 534 cases have been opened in Montenegrin courts on the basis of alleged criminal acts against the environment and spatial planning.

But 411 of those concerned illegal wood-cutting; only six were for environmental pollution, none of which ended in convictions.

Instead, the Department for Environmental Inspection relies heavily on fines and misdemeanour proceedings, which carry far less damaging consequences for the guilty party.

In the records of dozens of misdemeanour cases that BIRN obtained via Freedom of Information requests, the biggest violators, besides *Plantaze*, are *Gradir Montenegro*, owner of the Suplja stijena lead and zinc mine in Pljevlja, scrapyard *WEG kolektor D.O.O. Berane*, the steel mill *Toscelik Steel* and state-owned electricity firm *Elektroprivreda*.

In many cases, the issues identified by inspectors have not been resolved regardless of the fines imposed.

In 2015 alone, Zarubica filed five requests for misdemeanour proceedings against Turkish-owned *Toscelik*, based in Montenegro’s second city of Niksic.

In March of that year, *Toscelik* was ordered to obtain environmental consent from the Agency for Environmental Protection for an environmental impact assessment for part of its operations. When it failed to do so, Zarubica filed for misdemeanour proceedings in June. Then again in October. She filed three more requests in December for other shortcomings, including one concerning the way the factory deals with waste.

Then three years later, in January 2018, *Toscelik* was reprimanded again for violating the law on integrated pollution prevention and control, according to documents obtained by BIRN and CIN CG. The company ceased operating in 2021.

Likewise, between 2017 and 2019, *WEG Kolektor* was fined repeatedly over its handling of toxic waste, including failure to measure pollution in the air. In May 2017, inspectors ordered the company to dig a third well for waste, only to find two years later that it had not.

In documentation handed over to state prosecutors on November 6, 2018, the Agency for Environmental Protection complained that “none of the steps taken so far by environmental inspectors concerning the subject under monitoring have had any effect.”

Meanwhile, *Gradir Montenegro* was ordered in September 2013 to fix pipes at its lead and zinc mine that inspectors discovered were leaking into the Mjednik stream and turning the water cloudy, as well as a faulty pump. The company was ordered to fix the pipes, which it did.

Six years later, the *Cehotina* river, into which the Mjednik flows, was polluted. Authorities were unable to prove that *Gradir* caused the pollution because officials from the Institute for Public Health failed to turn up to take water samples on November 15, 2019, according to records made by environmental inspector Irena Popovic and seen by BIRN and CIN CG. *Gradir* was ordered to remove the pipes altogether.

Dragicevic, the eco activist, said smaller polluters were only following the example set

by bigger polluters.

He called for a proper penal policy, law enforcement and reform of the inspection system, warning that “trust in the institutions must be built before it is too late.”

“Because when we reach a point of no return, when anyone can kill what they want with a rifle in the woods, when tons of fish are killed with dynamite every day, when the forest is cut by whoever wants to, wherever they want, without fear of consequences soon we will have nothing to protect and it will be too late.”

‘Nothing but devastation’

Radojica Bulatovic says that the very air he breathes is affected by the failure of authorities to hold polluters to account.

He and other residents near the Cijevna river in Golubovci, southern Montenegro, blame the road contractors *Putevi* and *Tehnoput* for the dust in the air and excrement in the river, which both companies scrape for gravel.

“They take the state’s treasures and these people produce asphalt using such outdated technology that they poison us. They are killing us with stone dust,” said Bulatovic.

He accused inspectors of “resolving everything over the phone” and questioned the effectiveness of the “ordinary, small sprinklers” installed to keep down the dust. “If they continue like this, we’ll have to move out,” Bulatovic told BIRN and CIN CG.

Residents say they have appealed to the Directorate for Inspection Affairs on several occasions. Two years ago, the directorate replied that both companies had the necessary permits, had installed water systems to keep down dust and that one of the firms had even planted a “small pine wood” to stop the spread of dust.

In a response to BIRN and CIN CG, the Directorate said that its inspectors “regularly monitor the companies *Putevi* and *Tehnoput*” and that, in response to the concerns of residents, had repeatedly ordered monitoring of air pollution in the air and that *Tehnoput* would be relocated.

To make matters worse, major polluters in Montenegro have been dodging environmental taxes and contributions for years.

For example, Niksic-based *Uniprom*, which owns aluminium producer *Kombinat Aluminijum Podgorica KAP*, was ordered this year to pay just over 800,000 euros in unpaid environmental taxes and fees. On November 25, *Uniprom* owner Veselin Pejovic was arrested on allegations he threatened the head of the Agency for Environmental Protection. By then, *Uniprom* had paid some of the money back but still owed just over 670,000 euros.

In total, the Agency ordered firms to pay

around 1.3 million euros in taxes and fees this year, a sum that included debts from previous years. Around half that amount had been collected by the time of publication of this story, compared to roughly 300,000 euros annually in previous years.

Milos Lazarevic, executive director of the NGO Coalition for Sustainable Development, KOR, said that a raft of international conventions and agreements that Montenegro had signed up to, not to mention its obligations on the road to European Union accession, had little effect.

“To make matters worse, the previous government concluded a number of agreements that are unconstitutional and passed a series of urban and other plans that would permanently devastate even UNESCO-protected areas, not to mention rivers and lakes,” Lazarevic told BIRN and CIN CG.

“In the absence of a system of rule of law, some citizens pointed out anomalies in society through organised action and thus inspired others to jointly put pressure on the institutions of the system to finally start doing the work for which they are paid from the citizens’ money,” he said.

“There is a critical awareness and desire among the citizens, but as long as the legislative, executive and judicial authorities do not realise that the emperor is naked and do not take responsibility... in ten years there will be nothing but devastation.”

Jelena JOVANOVIĆ

