

# WHAT CAN YOU DO IN SERBIA WHEN YOU BUILD A SMALL HYDROPOWER PLANT?

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# INTRODUCTION

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Ever since 2009 when the first Decree on Incentive Measures for Electricity Generation from Renewable Energy Sources was adopted (“Official Gazette of the Republic of Serbia” 99/09) the status of a privileged power producer can be acquired by owners of approximately one hundred small hydropower plants with the installed power of up to 1 MW.<sup>1</sup> These plants make for 1.26% of the total electricity generation capacities in 2019.<sup>2</sup>

The construction of small hydropower plants (SHPP) has been accompanied by a number of controversies since the very beginning, caused mostly by the lack of reliable information about locations, omissions made by public authorities while issuing building permits and adverse effects on the environment. The construction of SHPPs often causes negative reactions in the public that escalate through civic protests and confrontations between investors and local citizens.

A particularly complex problem is the degradation of the environment, the damage inflicted to the river bed and endangering of protected areas as goods of general interest. Field research carried

out by experts from the Faculty of Forestry in Belgrade and the Faculty of Science and Mathematics in Kragujevac showed that SHPPs negatively affected the natural environment, as well as the flora and fauna. As the environmental law is inadequately enforced there is very often a collision with regulations referring to environment, energy, planning and construction, which creates circumstances for an unhindered and continuous endangerment of the environment and of the right to develop for local communities. The application of regulations would partially remove this problem, but it is indispensable to horizontally harmonise regulations.

From the very beginning, the planning and construction of SHPPs have been conducted with minimal public participation. The accountability for this lies primarily with the public authorities, the obligation of which is to inform and include the public in the decision-making process that affects the environment. However, to this day, the provisions of the laws that provide public participation have mainly been applied in order to satisfy the form, while the true participation of the public in the decision-making process is still missing.

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1 There is no single and generally accepted classification of small hydropower plants. In some countries, such as Austria, the key determinant is the amount of generated energy, while in Germany small hydropower plants are those with the installed capacity lesser than 5 MW. In Brazil, Russia and the United States, the capacity of small hydropower plants is limited to 30 MW. It seems that the last interpretation was accepted in Serbia because the current Energy Law (Article 70) establishes that the status of a privileged electricity producer can be obtained by the producer of electric power in the hydroelectric power plant up to 30 MW, although by 2012 the upper limit was 10 MW. More about the classification of small hydro power plants at: Renewable and Sustainable Energy Reviews, Small hydropower plants in Serbia: Hydropower potential, current state and perspectives, Milena Panić, Marko Urošev, Ana Milanović Pešić, Jovana Brankov, Željko Bjeljic, March 2013.

2 Decision on Determining the Energy Balance of the Republic of Serbia for 2019 (“Official Gazette of the Republic of Serbia” No. 105 dated December 29<sup>th</sup>, 2018). The energy balance represents the assessment of energy needs and generation capacities on the annual basis. In that sense, the contribution of small hydroelectric power plants may be somewhat higher given that all of these generation capacities have not yet been put into operation.



Protest of citizens against a SHPP on Stara Planina, Pirot 02/09/2018.  
Source: N1 <https://bit.ly/2UNLa4X>

Apart from public authorities, accountability for these circumstances lies also with non-governmental organisations and citizens. Unfortunately, *not knowing the law is harmful (ignorantia iuris nocet)*, so, a voluntary waiver of the legally guaranteed right to participate in a decision-making process still results in the adoption of regulations and the implementation of projects that are detrimental to the public interest. This shifting of accountability to citizens and NGOs may sound too harsh, but in a society where democratic institutions do not function, it is illusory to expect the citizens to exercise their rights by sitting at home and waiting for public authorities to do their job.

Citizens' activism in connection with the construction of SHPPs is encouraging, as civic protest brought attention to the negative impact of SHPPs and made them interesting for the media, the professional public and the international community. The protests launched by the "Let's defend the rivers of Stara planina" movement in 2017 and 2018 drew attention of the general public and the media to the problem of the SHPP construction, even though there had been protests against SHPPs before. It was shown that the cooperation between civil society, media and citizens gave results, despite the environment that is not conducive to civic activism.

Ten years later, it is clear that resolving the pending problems related to the construction of SHPPs requires a systemic approach, an accountable behaviour of public authorities and a public participation in the decision-making process. The accountability of public authorities and the problem of insufficient public involvement are the basic topics of this analysis.

The principle of accountability in good governance implies that all decision-makers, both individually and collectively, bear responsibility for the decisions they make.

In this sense, in this analysis, the principle of accountability has been defined as:

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The accountability in the sense of governance ethics, accountability of public authorities for their actions, expectations that citizens be rendered accounts and guaranteed the right to hold the officials accountable;

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The accountability for goals and expected outcomes of public policies. Each level of authority should be accountable for the proper realisation of the goals set out in strategic and planning documents, as well as in the laws;

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Protest on the Kumanici against the construction of the PP Brodarevo 1 and 2, 22/03/2013.  
Source: Alpe Adria Green <https://bit.ly/2GxO7h7>



Protest of citizens of Priboj against the construction of the SHPP "Rekovići", 17/10/2017.  
Source: Private archives, Ras, Serbia, BLIC <https://bit.ly/2UARFTW>

The accountability towards the law, legal accountability in the narrow sense, which implies the existence and practice of legally based monitoring and oversight of the implementing bodies, as well as the existence of legally defined responsibility of civil servants in cases of violations of the law;

The accountability also implies the existence of legally defined and clearly distributed competencies between different authorities and between different levels of public authority.<sup>3</sup>

The analysis has been based on selected cases pointing to the omissions of public authorities in the planning and issuing of building permits, to the violation of the law by the investors and to the absence of reaction by accountable institutions. Some of the cases described have been chosen precisely because the public knows very little about them and in this way the visibility of local problems, solidarity and the exchange of information and acquired experiences is being raised.

The aim of this analysis is to promote the accountability of public authorities and the protection and preservation of the environment as essential principles in the management of public policies, as well as to offer an objective and factual overview of the problem of SHPP construction in Serbia to the interested public.

Through the presentation of indicative cases of violation of regulations in the construction of SHPPs, this analysis offers civil society activists and civil society organisations the knowledge resources and information that can be useful in carrying out activities in the field of environmental and civil rights protection. Furthermore, this analysis is also an invitation to the dialogue of the opposing parties because at this moment the entire society is bearing the consequences, whereas, the benefit emanating from the electric power generated from SHPPs is being derived only by a few investors, including the public company "Elektroprivreda Srbije" (Public utility electric company).

<sup>3</sup> More about the accountability principle in the environmental policy: Vertical dimension of a good governance: Principles and approaches in cooperation between the state and local self-government units in the area of the environmental protection, Marko Vujačić, Mirko Popović, Aleksandra Saša Solujić, Ana Nedeljković Belja, Belgrade, March 2018.

# ANALYTICAL FRAMEWORK - THE CONTEXT OF THE PROBLEM

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## National Renewable Energy Action Plan

The Ministry of Energy, Development and Environmental Protection adopted in 2013 the National Renewable Energy Action Plan (NREAP).<sup>4</sup> The elaboration of this document represents the fulfilment of an international obligation arising from the Energy Community Treaty from 2006 (“Official Gazette of the Republic of Serbia”, number 62/06). This document sets out the goals of using renewable energy sources by 2020, but the aim of this plan is also to encourage investment in renewable energy.

The NREAP provides a planning framework for the realisation of targets for increasing the share of renewable sources in gross final energy consumption (GFEC)<sup>5</sup>. Year 2009 was established as the base year for calculating the share of renewable sources. The Ministerial Council of the Energy Community brought a decision in October 2012,<sup>6</sup> determining a binding target for Serbia<sup>7</sup> amounting to 27% of renewable energy sources (RES) in the GFEC in 2020.

The Action Plan for Renewable Energy Sources also sets out national and overall goals for fulfilling

contractual obligations. When it comes to SHPPs in this document, it was stated that by 2020, it is expected that plants with a total installed capacity of 188 MW be installed, which should provide 16.2% of energy from SHPPs.<sup>8</sup>

The implementation of the National Action Plan for Renewable Energy Sources is being monitored through periodical reports that the competent ministry submits to the Government of the Republic of Serbia and to the Energy Community Secretariat. The last report prepared by the Ministry of Energy, Development and Environmental Protection refers to years 2016 and 2017.

According to the data from this report, the share of renewable energy sources in GFEC amounted to 20.88% in 2016, and 20.60% in 2017.<sup>9</sup> Pursuant to findings presented at the Energy Community Secretariat Annual Report for 2018, Serbia is in a serious delay in the implementation of the National Action Plan for Renewable Energy Sources. According to the data contained in the Energy Community Secretariat Annual Report, the share of renewable sources in GFEC was 20.9%, which is significantly inferior to the target value for 2016. (23.8%).<sup>10</sup>

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4 The Republic of Serbia, the Ministry of Energy, Development and Environmental Protection, [National Renewable Energy Action Plan of the Republic of Serbia](#), Belgrade, 2013:

5 Gross Final Energy Consumption (BFPE) is energy consumption with losses in transmission and distribution in the electricity and heat sector and with consumption of the energy sector itself, which does not take into account non-energy consumption, that is, BFPE is calculated as Final Energy Consumption (PFE) increased for own consumption in the electricity and heating sector and for losses in distribution and transmission.

6 Ministerial Council of the Energy Community, Decision on the implementation of Directive 2009/28/EC and amending Article 20 of the Energy Community Treaty (D/2012/04/MC-EnC), 18th October 2012

7 National Renewable Energy Action Plan, page 4.

8 Idem, page 18.

9 The Republic of Serbia, The Ministry of Mining and Energy,

10 Annual Implementation Report 2017/2018, Energy Community Secretariat, September 1<sup>st</sup> 2018, page 166-167.



der to help them establish steps in planning and construction of SHPPs. Simply put, where no data were available, hydropower facilities should not have been built, at least not until the reliable and relevant data were collected and checked. If the state is unable to ensure the availability of relevant data, this means that it is unable to implement an ambitious plan for the construction of several hundreds of small hydropower plants.

## Environmental flows or an ecologically sustainable flow - or none of the above

The construction of SHPPs can lead to environmental degradation, destruction of natural resources and limitation of local populations' access to water. Cumulative effects of the construction of several SHPPs on one river or basin particularly contribute to this situation. The degradation of rivers as an important factor in mountain ecosystems consequently leads to endangering flora and fauna, erosion and land drainage. Derivative small hydropower plants that use pipelines to supply water to a powerhouse represent a particular danger for mountain ecosystems. In order to provide sufficient quantities of water for SHPP functioning, water is conveyed from the water intake structure on the riverbed to the powerhouse via pipelines. The length of pipelines is from 1 to 3 kilometres. The introduction of water in the pipeline can lead to a breakdown of the watercourse or its drainage in the months when the flow is low.

The Law on Waters stipulates that "while drawing water from watercourses or accumulations, downstream from the water intake structure, a minimal sustainable flow must be ensured taking into account in particular: the hydrological regime of watercourses and watercourse properties from the aspect of water use and water protection, the state of aquatic and coastal ecosystems."<sup>17</sup> This measure is called ensuring a minimum sustainable flow. The very fact that a sustainable flow is defined as a minimum speaks of the legislator's definition of watercourse protection. Contrary to the minimum sustainable flow, the term "ecologically acceptable flow" is adopted in the EU, which refers to the

amount of water necessary to preserve the existing status of the aquatic ecosystem and ensure the unobstructed use of water downstream from the water intake for the needs of people and the natural environment. Although the Law on Waters foresees that a special bylaw will more closely define the criteria for determining the minimum sustainable flow, this has not yet happened.

In the absence of regulations governing the rules for determining the minimum sustainable flow, *this minimum is being determined on the basis of the probability theory, empirical or statistical method. However, a representative "ecological flow" can be determined only after the hydro-biological properties of the watercourses have been defined on the basis of a detailed monitoring of the living world, simultaneous work of experts in the field of hydro-biology and hydrometry, followed by the establishment of a functional link between the necessary conditions for the survival of the living world in the stream and the corresponding water levels (flows). Only after that the "ecological flow" can be determined, i.e. the "ecologically sustainable flow". According to research conducted by experts from the Faculty of Forestry, "detailed monitoring of aquatic ecosystems prior to the preparation of project documentation has not been done for any SHPP in Serbia. The representativeness of the adopted values of the "ecological flow" is questionable, i.e. there is no evidence that flows determined in that way actually provide conditions for survival of the living world in the river course.*<sup>18</sup> The research performed by the Faculty of Forestry comprised 46 SHPPs in the south-western and south-eastern Serbia.

The impacts of SHPPs on the environment have been discussed in the Strategic Environmental Assessment Report of the National Water Resources Management Strategy. This document draws attention to the fact that long pipelines are used in the construction of small hydropower plants, which leads to permanent destruction of the entire watercourse.



**"Requirements for respecting the compulsory minimum sustainable flow are often ignored because they cannot be controlled, which should be taken into account when defining appropriate guidelines for the construction of small**

17 The Law on Waters ("Official Gazette of the Republic of Serbia, no. 30/2010, 93/2012, 101/2016, 95/2018 and 95/2018 – state law), article 81.

18 Faculty of forestry of the University of Belgrade, Guidelines for sustainable planning and management of the catchment areas of small hydropower plants in protected areas, Belgrade 2018, page 10.



**hydropower plants. Given the fact that small watercourses are the best “capillaries” of all ecosystems, their devastation leads to a “domino” effect of the destruction of all major ecosystems associated with them. The assessment of some already built small hydropower plants shows ecological destruction of a very valuable small watercourse due to low energy results. Besides, there is no list of possible locations, and planning documents related to mini hydropower plants have not been harmonised. Bearing all this in mind, as well as the possibility of a cumulative effect of several small hydropower plants on the same watercourse, it is necessary to pay particular attention to the aspect of responsible planning of the number of small hydropower plants and their spatial layout.<sup>19</sup>**



Field experiments carried out by experts from the Faculty of Science of the University in Kragujevac analysed the impact of SHPPs on biodiversity in the rivers Vlasina, Jošanica, Prištavica and Gračanica.<sup>20</sup> This study unambiguously determined the significant decline in production and the number of protected species of fish below the water intake compared to the number of populations and their production above the water intake. The conclusion of this study was that SHPPs built along the flows of the river Vlasina, Jošanica, Prištavica and Gračanica negatively affected the biodiversity.

## **Overview of the development of the market for renewable energy sources in Serbia**

In order to better understand the problem, it is necessary to mention several facts and circumstances related to the development of the market for renewable energy sources in Serbia.

The binding targets for the use of renewable energy sources were created through the acceptance of obligations within the Energy Community, or, more

broadly, in the process of adopting the *acquis communautaire* (EU). With this in mind, it is also necessary to look at the key drivers of the development of the market for renewable energy sources in the EU.

One of the key driving mechanisms is the contribution to the reduction of greenhouse gas emissions, and these emissions both in Serbia and around the world predominantly derive from the energy sector, i.e. from coal burning in thermal power plants. The goal of the European Union is to ensure by 2050 the security of energy supply, a competitive energy market and to decarbonise the energy sector. The key objective is to reduce greenhouse gas emissions by 80 to 95% in relation to emissions from 1990.<sup>21</sup>

As a country that *deeply involved* in the EU accession process, Serbia should keep these goals in mind and integrate them into all public policies, but also to provide a broad social consensus on these goals.

The security of supply is very important for the EU, primarily because of the dependence on energy imports. Renewable energy sources are locally available and encourage technological development, inventiveness and sustainable development of local communities. In countries that have achieved significant results in the field of renewable energy sources, a large percentage of production capacities is in the property of citizens, energy cooperatives and local communities. In this respect, the development of the renewable energy market is directly related to civic participation and public involvement in policy creation and implementation.

When it comes to small hydropower plants, they give their full contribution when they provide the supply of users in remote locations, by contributing to the reduction of costs of developing the distribution network and to the reduction of transmission losses. In Serbia, we cannot talk about this type of contribution because the connection of small hydropower plants to the network has often required additional investments in the development of the network, which increased the investment costs and

19 The Republic of Serbia, the Ministry of Agriculture and Environmental protection, The Republic Water Directorate, Report on Strategic Environmental Assessment of the Water Management Strategy in the Republic of Serbia, Institute of Architecture and Urban and Spatial Planning of Serbia, Belgrade, October 2015, page 93.

20 The Faculty of Science of the University in Kragujevac, Report on the impact assessment of SHPPs on biodiversity of macroinvertebrates and fish on the rivers Vlasina, Jošanica, Prištavica and Gračanica, Kragujevac, October 2018.

21 European Commission, Energy Roadmap 2050, (COM 2011) 885 final, December 2011



created additional pressures on the living environment and resources of local communities.

It can often be heard in public that the SHPPs represent a replacement for the production of electric energy from thermal power plants and thus contribute to the reduction of carbon dioxide emissions and contribute to reaching a binding target of 27% of renewable sources in GFEC. Such conclusions can be easily refuted by the simplest critical analysis. As mentioned above, the current capacity of SHPPs is inferior to 2% of the total installed capacities for the production of electric power in Serbia (less than 100 MW), while the total installed power of thermal power plants is about 4000 MW. Not in the most optimistic scenario, even if the total installed power of all SHPPs in Serbia were around 500 MW<sup>22</sup>, could they in no way replace the existing thermal power fleet.

Also, the contribution of SHPPs to achieving binding targets within the Energy Community is sufficiently illustrated by the fact that the share of renewable sources in gross final energy consumption in Serbia in 2016 and 2017 was lower than in the base year 2009. The goal has not been achieved, despite the investment of significant material and administrative resources.

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<sup>22</sup> According to the assessments contained in the Law on Spatial Planning of the Republic of Serbia ("Official Gazette of the Republic of Serbia" no. 88 dated November 23<sup>rd</sup> 2010), using the total energy potential of small hydropower plants, it will be possible to produce about 4.7% of the total electricity generation in the Republic of Serbia. The estimated technical potential of small hydropower plants ( $\leq 10$  MW) in Serbia is 500 MW, according to the assessment of the International Renewable Energy Agency (IRENA, Joanneum Research and University of Ljubljana (2017), Cost-Competitive Renewable Power Generation: Potential across South East Europe, International Renewable Energy Agency (IRENA), Abu Dhabi; page 70). According to the assessment made by IRENA, the technical potential of the wind and the sun, as well as of large hydropower plants, exceeds the potential of SHPPs by far.

# CASE ANALYSIS - WHAT CAN YOU DO IN SERBIA WHEN YOU BUILD A SMALL HYDROPOWER PLANT?

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The analysis of the construction process of separate SHPPs, the preparation of technical documentation and the procedure for issuing approvals necessary for acquiring building permits, the preparation of planning documentation and environmental impact assessment point to omissions of public authorities and to the violation of regulations and statutory procedures. As the accountability of public authorities is the basic ground of this analysis, attention shall primarily be paid to their actions or failure to act.

The experiences of the cases presented in this analysis cannot be literally mirrored to all other sites where SHPPs have been or are being built and to all stakeholders involved. However, having in mind the number of cases and the extent of violation of regulations, these cases represent an indication of the negligent behaviour of the bodies responsible for issuing appropriate permits, of neglecting the criteria for environmental protection, insufficient public interest, and formal and factual limitations of public participation in the decision-making process.

In order to perceive the problem in its entirety, it is necessary to thoroughly analyse each location and each individual project, taking into account the accurate and methodologically correct data collected. First of all, such an approach should have been applied at an early stage, before calls for SHPPs were launched and before the first building permit was issued. This would have been the approach of an accountable govern-

ment, and this is what an accountable management of natural resources should look like.

Without data on environmental factors, accurate data on flow, watercourse status and the state of flora and fauna, it is impossible to assess the impact of the planned project on the environment. Without these data, the commencement of construction work would not be possible, in circumstances where public authorities and investors acted accountably.

Certain investors from the region draw attention to the fact that proper environmental impact assessment and cooperation with the local community are crucial for the development of RES projects.

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**A proactive approach to the interested public can prompt the stakeholders to participate in public calls with projects harmonised with all relevant regulations and without resistance, whereas all potential well-grounded remarks may contribute to a successful realisation. If a local community explicitly refuses a project and if, in spite of additional clarifications and education larger support keeps lacking, it will be better to seek another location than to force a project which will engender tension that will last as much as the project itself - for decades.<sup>23</sup>**

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23 Balkan Green Energy News: A proper environmental impact assessment and cooperation with the local community are crucial for all RES projects: <https://balkangreenenergynews.com/rs/pravilna-procena-utica-ja-na-zivotnu-sredinu-i-saradnja-sa-lokalnom-zajednicom-kljucni-za-projekte-oie/>, February 12<sup>th</sup> 2019.

The cases presented here have been chosen primarily because they allow that the problems in the construction of the SHPPs be viewed in a broader perspective (threatening the rule of law, environmental impacts, social influences), but also because the documentation was available which allowed an analysis based on the facts, and because the civil society and the media were interested which facilitated the collection of data.

## **Copy-Paste: competent authorities are being misled by copying of data regarding other locations**

The analysis of the process of preparation of documentation regarding the two selected SHPPs points to cases of copying of data relating to locations that have nothing to do with the locations that are the subject of the procedure. Therefore, a careful analysis of documentation that is exposed to the public is a very important aspect of the work of associations dealing with environmental protection. It has been shown that such engagement of local associations is indispensable, since the adequate response of the competent authorities is lacking.

### SHPP Zaskovci or MHE Selište or Copy-Paste?

The company Poseidon Energy d.o.o. from Belgrade, submitted to the competent ministry in April 2017 a request for the decision on the need for an environmental impact assessment for the construction of the SHPP “Zaskovci” on the Živadinov Dol river, on Stara Planina Mountain. The area foreseen for the construction of the SHPP “Zaskovci” is in the third degree protection regime in the Nature Park Stara Planina, and is situated within an ecologically important area of the Republic of Serbia “Stara Planina”. This is why an environmental impact assessment is a necessary part of the procedure. The Ministry of Agriculture and Environmental Protection in its Decision dated June 20<sup>th</sup> 2017 (number 353-02-01013/2017/16) determined that it was unnecessary to carry out an environmental impact study for the said project.

Bearing in mind that the location for the construction of the SHPP “Zaskovci” in the third degree protection regime, where the construction of hydropow-

er facilities is not prohibited, it could be concluded that the Ministry has acted in accordance with the regulations. However, by inspecting the request submitted by Poseidon Energy d.o.o. it can be concluded that the applicant did not provide accurate information regarding the location description, and hence the exact description of the environmental factors and possible negative influences. All the above data are elements mandatory for the decision-making regarding the need for an environmental impact assessment prescribed by the law.

Having analysed the request that the company Poseidon Energy d.o.o. submitted to the competent Ministry<sup>24</sup> we noted that certain information were identical to those presented in the request for decision on the need for an environmental impact assessment regarding the SHPP “Selište” that the company “Gornjak” d.o.o. had submitted to the competent Ministry on October 6<sup>th</sup> 2015. Moreover, while describing the environmental factors that could be exposed to the impact, the company Poseidon Energy d.o.o. explicitly stated that the analysed impact referred to the hydropower plant “Selište” and not to the facility was in this case the subject of the decision-making process.

Since it was clearly stated in the descriptions of environmental factors that the SHPP “Selište” was concerned, and not the SHPP “Zaskovci”, the competent ministry had the possibility and obligation to reject the request as irregular, because it contained defects preventing the authority from acting accordingly. However, it did not happen and the Ministry passed on the Decision following the said request.

### The Predolska river but in Arilje

Copying of data that concern other locations is a circumstance that should be closely looked at when preparing planning documents and issuing corresponding approvals and permits. Authorities in charge of permit issuing should primarily verify the said data, as they have a legal obligation to do so, but activists who monitor the SHPP construction should also verify them.

During a public insight into the master plan for the SHPP “Lazine” on the Mali Rzav river (October 2014),

<sup>24</sup> The request is available on the site of the Ministry of Environmental Protection (<http://www.ekologija.gov.rs/zahtev-za-odlucivanje-o-potrebi-procene-uticaja-na-zivotnu-sredinu-za-izgradnju-mini-hidroelektreane-mhe-zaskovci-na-vodotoku-zivadinov-dol-mesna-zajednica-zaskovci-so-pirot/>)

environmentalists pointed out to data that was copied from another document referring to the Predolska River in the Ibar River Basin. The following data can be found in the Urban Design Project carried out by the company “Balkan gradnja” from Užice, in the part Technical Solutions for the dam of the SHPP “Lazine”:

*“This type of water intake (author’s note: this relates to the SHPP “Lazine”) has been designed to correspond to properties of the Predolska river, as well as to the surrounding geography of the terrain”.*<sup>25</sup>

By inspecting the realised projects of the company “Balkan gradnja”, the environmental protection association from Arilje, the participant in the public insight, concluded that the data from the urban design project had been copied from a project that was designed for a SHPP planned at the Predolska river, the tributaries of the Ibar river, in a completely different location that was not even the subject of an urban design project for “Lazinje”.

According to the available data, the urban planning design has not been rejected, but accepted as a basis for considering the location conditions for the construction of the SHPP “Lazine”.<sup>26</sup> However, the SHPP “Lazine” project has not been realised due to negative location conditions. The municipal administration of the municipality of Arilje stated among other reasons for rejection of the location conditions issuing the fact that the Institute for Nature Conservation of Serbia refused to deliver the conditions for nature conservation (Case file no. 03 no. 020-468/2) as it was assessed that the planned activities “*would permanently impair ecological characteristic of the fishing water, degrade natural values and change the habitat, which would endanger the fish fund, while the changes in hydrological regime would influence the life cycle, particularly spawning of fish species.*”<sup>27</sup>

The opinion of the Institute for Nature Conservation of Serbia shows in this case that the copying of data from planning or urban planning documents

relating to another location cannot be considered as a minor failure of the makers but that the technical solution for each individual project must correspond to the specific conditions at the location for which the planning and urban planning documents are being drafted.

## **The construction of the SHPP without a planning document and without a building permit**

*“I made a mistake because I started constructing without the building permit...”*

These are the words that the investor used to justify the illegal construction of the SHPP “Jovanovići” in the village Dobrača, on the river Panjica, in the municipality of Arilje. The construction of the SHPP “Jovanovići” commenced without the building permit. Undertaking construction works without a building permit is not just a misdemeanour, it is also a serious criminal offense for which a prison sentence is foreseen and. However, the investor and the contractor of illegal works were granted permission to construct a building that they illegally built right before the eyes of the public administration of the Municipality of Arilje. The construction works of the SHPP “Panjica” commenced in 2018. In 2018, the investor VSP Energy d.o.o. was twice rejected the request for issuing of the building permit<sup>28</sup> however, the works continued. The *Insider* recordings and coverage made in November 2018 witness of the situation.<sup>29</sup> At the end, the investor and the municipal construction inspector confirmed the conclusion that the works were being executed without the building permit in an oral statement given to the *Insider*.

The explanation of the construction inspector from Arilje certainly deserves to gain space in this analysis, because it represents a specific case of original interpretation of regulations by municipal authorities:

25 Draft urban design project for the SHPP “Lazine”, put to public insight on October 19<sup>th</sup>, 2014, page 18. (document is kept by the author).

26 The Municipality of Arilje, Municipal administration, Conditions on location no. 01 no. LU-2/18 dated April 10<sup>th</sup> 2018. (document is kept by the author)

27 Idem, pages 7-8.

28 The municipal administration of the municipality of Arilje, the Conclusion no. ROP – ARI – 3755– CPI -1/2018 dated February 26<sup>th</sup> 2018 and the Conclusion no. ROP – ARI – 25748– CPIH -2/2018 dated October 29<sup>th</sup> 2018.

29 For purposes of this analysis, video materials of *Insider* were used (<https://insajder.net/sr/sajt/tema/12529/>) as well as publicly available data from the building permit register kept by the Municipality of Arilje and the Business Registers Agency..

“I do say that we were somewhat benevolent and we let him (the investor, author’s note) obtain the building permit. He is simply not the man who can’t get a building permit. Penalising is not a problem, we can easily penalise him. We’ve first tried to act preventively. It’s not a problem to penalise this man. It’s not the point. The point is to act preventively, to warn him about the fact that he’s doing something illegal, then to make him get into the procedure, and if he disobeys, then inflict a sanction.”

After the construction inspection had issued a decision on the prohibition of works, the investor continued with construction works and the inspection announced that the case would be forwarded to the police. The works, however, continued.

The explanation of investors also deserves to be quoted in this analysis as it is instructive and supports the conclusions of this analysis that serious and conscious violations of regulations were committed during the construction of small hydropower plant:

“Well then, I counted that there would not be any problems. I don’t think I’ve made a mistake. The only mistake I’ve made is that I started constructing counting that I would get a building permit. I’ve made a mistake because I started constructing without the building permit... The administration and the bureaucracy brought me here.”

The case of the SHPP “Panjica” is interesting for the research only because the aforesaid facts. Nevertheless, this case has not been closed by a prohibition to construct or by a demolition of the illegal structure, which would have been a logical consequence of the regulation implementation. The administration of the Municipality of Arilje issued on December 29<sup>th</sup> 2018 the building permit for the construction of the first phase of the SHPP “Jovanovići” on the river Panjica.<sup>30</sup> As stated in the Decision, the



Construction works on the SHPP “Jovanovići”, source: Insider, November 2018: <https://insajder.net/sr/sajt/tema/12529/>

building permit was issued for the construction of the first phase of the SHPP “Jovanovići”. Inter alia, the Decision foresees the construction of the powerhouse, of the water intake structure with a fish trail, a sedimentation tank and inlet pipeline, i.e. for the parts of the structure that have already been constructed without the building permit.

If there is no plan, one should be invented – SHPP Jaruga

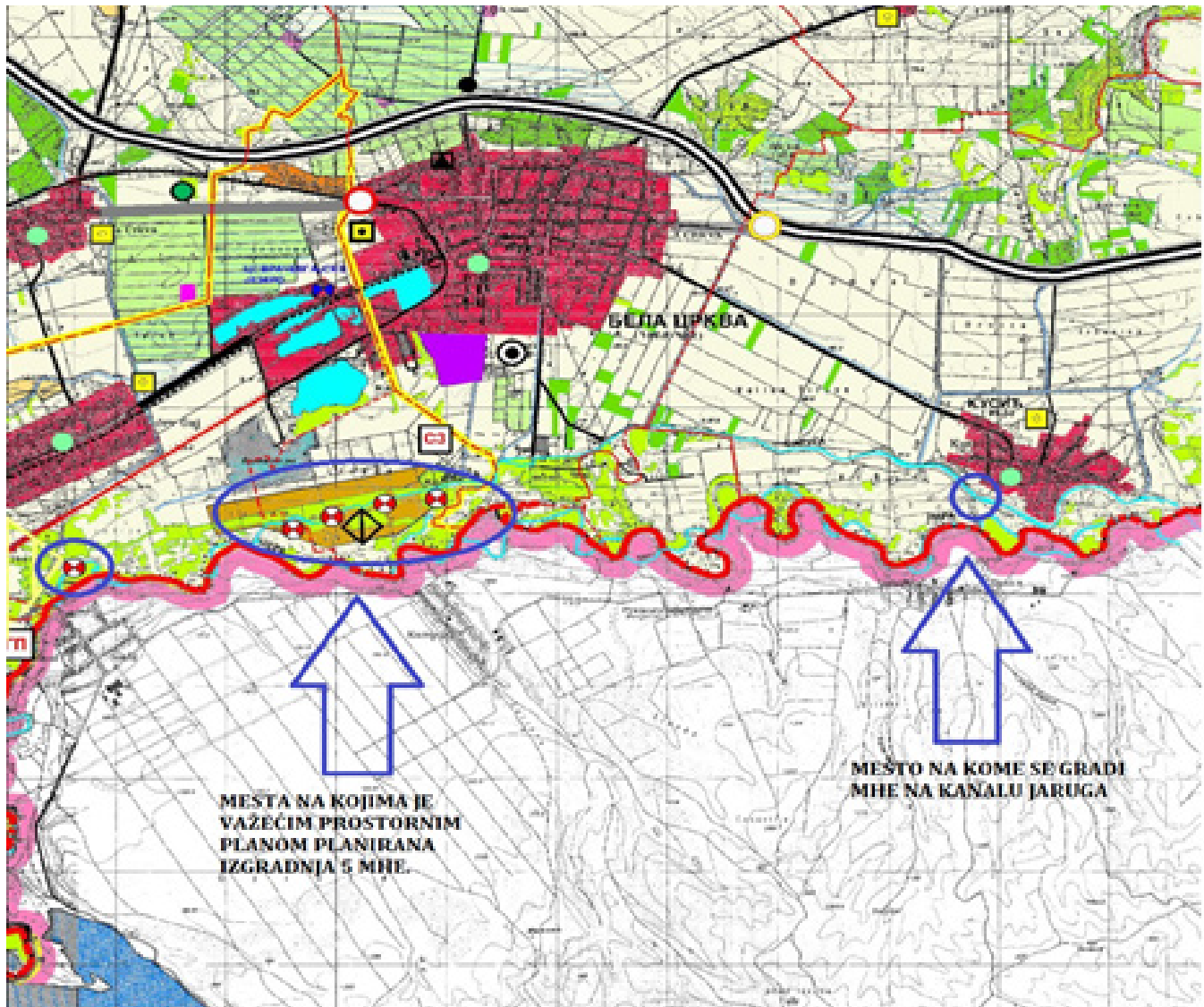
In this part of the analysis, the case of construction of SHPPs without an adequate planning basis shall be presented. The SHPP Jaruga in Bela Crkva is in the advanced stage of construction, although the documentation issued by the public authority clearly indicates that there is no planning document for construction.

The river Nera is an international watercourse in southern Banat. The Nera belongs to the protected area of exceptional qualities “Karaš-Nera” and the watercourse itself is protected as an ecological corridor of international importance within the ecological network.<sup>31</sup> According to the Regulation on ecological network on ecological corridors, it is forbidden to change the morphological and hydrological characteristics of the areas upon which the corridor functionality depends. The Jaruga is the derivative channel of the river Nera and stretches along the right bank of the Nera, in a length of 12 km. Since 1990, the Jaruga has been dry, so the investor’s intention is to transfer the water needed for the functioning of the SHPP from the Nera.<sup>32</sup>

30 The municipal administration of the municipality of Arilje, the Conclusion no. ROP-ARI-25748-CPIH-5/2018 dated December 19<sup>th</sup> 2019.

31 Regulation on ecological network (“Official Gazette of the Republic of Serbia” no. 102/2010)

32 This analysis covers only problems related to the planning documents, while other aspects of the problem of construc-



The possibility of the development of hydroelectric potential on the territory of the municipality is envisaged by the current Spatial Plan of the Municipality of Bela Crkva from 2008<sup>33</sup>, i.e. the construction of a total of 5 (five) SHPPs was foreseen in the channel Jaruga, in the cadastral municipalities Bela Crkva and Vračev Gaj. Nonetheless, the SHPP under construction is being built at a completely different location in the cadastral municipality Kusić, and is therefore outside the scope envisaged by the Municipal Spatial Plan for the construction of a SHPP and as such, its construction is not in accordance with the current spatial plan, which is a prerequisite for the building permit issuing.

Moreover, the aforesaid Spatial Plan is merely a planning document, whereby the very construction procedure should be additionally concretised by adopting of the adequate master plans. In the Decision granting the building permit for the said SHPP to the investor “Hidro Sporea Živojin“ from Bela Crkva,<sup>34</sup> it was stated that, inter alia, the building permit was being issued on the basis of the location permit delivered by the same authority.<sup>35</sup> In the said location permit, the planning document for the issuing of the location permit and subsequently the building permit, is the very Spatial Plan for the Municipality of Bela Crkva.

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tion of the SHPP Jaruga shall not be discussed.

33 Spatial Plan of the Municipality Bela Crkva: <http://belacrkva.rs/strateska-dokumenta-2/>

34 Permit number: 351-47/2015-05 dated June 22<sup>nd</sup> 2015 issued by the Municipality of Bela Crkva, Municipal administration – Department for urban planning, economy and inspection works.

35 Permit number: 353-183/2013-05 dated August 15<sup>th</sup> 2014 issued by the Municipality of Bela Crkva, Municipal administration – Department for urban planning, economy and inspection works.



SHPP “Jaruga“, Source: Večernje Novosti online:  
<https://bit.ly/2lQB1xl>

Article 19 of the Law on Planning and Construction<sup>36</sup> stipulates that the Spatial Plan of the local self-government unit shall be brought “for the territory of the local self-government unit and shall specify guidelines for the development of the activity and purpose of the areas, as well as the conditions for sustainable and balanced development on the territory of the local self-government unit“. This document cannot define conditions for the construction of specific buildings on the specific area, because the documents consists only of guidelines and conditions, i.e. it specifies the strategic direction for the development of space in the local self-government unit.

Article 28 of the Law on Planning and Construction stipulates that the Detailed Regulation Plan contains the borders of the plan and the catchment area of the buildable land, division of the space into separate wholes and zones, detailed purpose of the land and capacities for traffic, energy, utility and other infrastructure.

In this regard, it is logical to conclude that it was necessary to adopt a more detailed planning document for the construction that is taking place in the aforesaid location, more precisely, an adequate urban planning document on the basis of which the conditions of construction would be specified. The modified Spatial Plan for the Municipality should also be adopted as it would enable the adoption of planning documents that would allow this.

From all of the aforesaid, it can be concluded that the SHPP Jaruga could not be built on the basis of the Spatial Plan for the Municipality on which it was built, for at least two reasons:

the construction of the SHPP on the location it was built was not foreseen by the Spatial Plan;

the construction could not have been carried out on the basis of the Municipal Spatial Plan, but it was necessary to adopt a more detailed planning (urban) document.

### ***The construction of a SHPP without conditions of nature conservation***

Among the drastic phenomena of violation of regulations is the construction of a SHPP undertaken without adequate conditions for nature conservation or contrary to the conditions imposed. Measures and conditions of nature conservation using natural resources and goods for planning and development of an area are one of the basic principles of nature conservation and are regulated by the Law.<sup>37</sup> This Law establishes that activities and projects using natural resources be handled in accordance with the nature protection measures laid down in the plans, plan views and programmes and in accordance with the design and technical documentation, in order to avoid or at least minimise the threat and damage to nature. The Law on Nature Protection (article 9) also stipulates that in the development of plans, plan views and programmes, nature protection conditions issued by the competent institute for nature conservation must be obtained. The logical consequence of non-compliance with the provisions of the Law on Nature Protection would be the prohibition of construction or the prohibition of operation of installations which are not harmonised with these conditions.

The overview of the following cases is based on the documentation of the Institute for Nature Conservation and the Ministry of Environmental Protection as well as on research carried out by relevant scientific institutions. The public is also familiar

36 Law on Planning and Construction (“Official Gazette of the Republic of Serbia” No.72/2009, 81/2009, 64/2010, 24/2011, 121/2012, 42/2013, 50/2013, 98/2013, 132/2014, 145/2014 i 83/2018)

37 Law on Nature Protection (“Official Gazette of the Republic of Serbia” No. 36/2009, 88/2010, 91/2010 - rectified, 14/2016 and 95/2018 – state law)



with these cases thanks to the research work of the journalists of the Centre for Investigative Reporting and Insider, as well as the efforts of local activists from Jošanička Banja from the Committee for Protection and Development of Jošanička Banja.

About 15 SHPPs were built on the Jošanica River and in the Jošanica river basin, some of which are located in the National Park “Kopaonik”. About 27 km of river flows were placed in the pipes. On the Jošanica river, the main course of which has the length of 48 km, about 13 km of watercourse were put in the pipeline.<sup>38</sup> 5 SHPPs have been constructed on the Jošanica river itself.

The construction of SHPPs in Jošanica and its tributaries is an illustrative example of the negative cumulative effects of SHPP construction.



**The negative cumulative effects is very pronounced in this case, as there are no water intake structures in several facilities: the water is conducted through pipelines from one powerhouse to another (the powerhouse of the SHPP “Kašići” takes the water from the powerhouse “Belci”; powerhouse of the SHPP “Marići” takes the water from the powerhouse of SHPP “Vladići”; the powerhouse “Velež 1” takes the water from the powerhouse via pipeline.**



The SHPP “Velež”; the powerhouse of the SHPP “Velež” takes the water directly from the powerhouse of the SHPP “Samokovka 1”; the powerhouse of the SHPP “Samokovka 1” takes the water via pipeline the length of which is nearly 5 kilometres).<sup>39</sup>

Upon request issued by the Committee for protection and development of Jošanica bathing resort, the Institute for Nature Conservation performed in January 2014 an expert supervision on a part of the Jošanica river watercourse and came up to the following conclusions:

Building permits were issued for SHPPs “Drenje”, “Velež” and “Belci” without adequate conditions delivered by the Institute for Nature Conservation, while the SHPP “Županj” was built in spite of the fact that negative conditions had been issued by the Institute for Nature Conservation. Only SHPPs “Marići” and “Kneževići” have obtained the conditions issued by the Institute.

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The works completed on the said SHPP endangered and damaged the Jošanica river ecosystem in a greater extent and in a broader area.<sup>40</sup>

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## **Citizens’ resistance resulting from an irresponsible conduct of public authorities**

The reaction of local communities and civil resistance to the construction of SHPPs is a logical consequence of negligence of the competent authorities, the lack of implementation of the law and the unprincipled and unlawful construction of SHPP by the investors. This phenomenon should be considered in a wider social context. The root of the problem is the irresponsibility of public authorities and the failure of public policy in the field of renewable energy sources.

The first organised protests, about which the wider public was informed, sparked in the southwest Serbia and concerned the construction of hydropower plants Brodarevo 1 and 2 on the Lim river in Brodarevo, near Prijepolje. The clash of local activists and investors culminated in August 2013 when activists were brutally beaten up at a public hearing on the Environmental Impact Assessment Study of the Brodarevo 1 and 2 hydropower plants. The climax of the conflict contributed to the continuous failure of public authorities to conduct the impact assessment process in accordance with the law. The struggle of local activists, supported by a number of NGOs from Serbia and the region, lasted for almost a decade, and it was concluded that the competent ministry did not issue a consent to the impact assessment study, which is why the investor gave up the realisation of the project. The

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38 Guidelines for sustainable planning and management of the catchment areas of small hydropower plants in protected areas, Belgrade 2018, page 226.

39 Guidelines, page 227.

40 Centre for Investigative Reporting, Small hydropower plants: State and companies linked to Vučić’s best man are the most profitable: <https://www.cins.rs/srpski/news/article/male-hidroelektrane-drzava-i-firme-povezane-sa-vucicevim-ku-mom-najvise-profitiraju>

physical assault on activists was not the only form of pressure coerced on local activists. The investor filed on several occasions criminal charges against local activists for inciting racial, religious and national hatred. In no case was there a conviction.

The outcome of this case was significantly influenced by the fact that local activists secured the support of lawyers and *led the struggle on several fronts* - participation in decision-making, protests and public engagement, and used all available legal instruments to protect their rights.

The conflict between local activists and investors occurred in the village of Rakita, in the Babušnica municipality. At the end of 2018, when the locals and activists of the “Let’s defend the rivers of Stara planina” initiative clashed with the securing of the SHPP construction site.<sup>41</sup>

The conflict of interest between investors and local activists and citizens is actually occurring in the shadow of the state’s failure to act and the irresponsibility of public authorities, and represents the culmination of the symptoms of an irresponsible state. Unable to provide fulfilment of natural protection measure and the law and thus eliminate growing social antagonisms, public authorities withdraw and allow the escalation of clashes through protests and violence. Losers in this vicious circle of lawlessness are citizens and the state itself, but also investors who try to keep their affairs in line with regulations.

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41 *Južne Vesti*, Fight between activists and locals from Rakita with the security of the small hydropower plant construction site: <https://www.juznevesti.com/Hronika/Tuca-aktivista-i-mestana-Rakite-sa-obebedjenjem-gradilista-mini-hidroelektrane.sr.html>

# THE ATTITUDE OF THE ENERGY COMMUNITY ON THE CONSTRUCTION OF SHPPS

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In November 2018, the Energy Community Secretariat published the opinion on project of construction of small hydropower plants.<sup>42</sup> The reaction of the Energy Community Secretariat is a direct consequence of the growing dissatisfaction of the local population and non-governmental organisations. Undoubtedly, it is also a sign of understanding that the SHPP expansion did not significantly contribute to the improvement of the use of renewable energy among the members of the Energy Community. The Secretariat emphasised that the use of natural resources must be in line with EU regulations, and above all, in accordance with the general principles of transparency, legal certainty and accountability. The Environmental Impact Assessment, in the opinion of the Secretariat, is a key instrument for environmental protection and the interests of local communities and guarantees that all potential negative impacts have been considered before the realisation of the project. The project can be implemented only if measures to avoid, eliminate or reduce negative impacts have been considered at the impact assessment stage. The Secretariat particularly pointed out that it was necessary to analyse the cumulative impacts of projects in a given territory and insisted on the compulsory implementation of the public consultation procedure. The lack of public consultation, in the opinion of the Secretariat, may be a reason for reviewing project realisation permits.

In order to contribute to the sustainable use of the hydro potential, the Secretariat has announced the creation of a special guide for Energy Community members that will help them implement an impact assessment for small hydropower plants.

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<sup>42</sup> Statement of the Energy Community Secretariat on small hydropower development, November 13<sup>th</sup>: <https://www.energy-community.org/news/Energy-Community-News/2018/011/13.html>

# CONCLUSION - CAPTURING OF NATURAL RESOURCES IN THE PRESENCE OF PUBLIC AUTHORITIES

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The construction of small hydropower plants in Serbia can be described as a process of capturing natural resources for the benefit of particular interests, while the achievement of public policy objectives remains absent, primarily due to the lack of accountability. The accountability in this case represents a complex relationship between a number of influences and actors. The issue is ever more complicated because of the complexity and imperfection of regulations and the lack of horizontal and vertical coordination of public authorities.

Nevertheless, the key problem did not arise in the process of the SPHH construction, but in the process of planning and preparing of public policies. More precisely, the lack of accountability in the planning process led to problems in the process realisation. Victims of this irresponsibility are citizens and local communities, public authorities that issue licenses in unacceptably bad conditions, as well as investors. However, the greatest sacrifice is borne by rivers and natural resources as their degradation has begun to bestow properties of an irreversible process.

The negligence of ecological and social aspects is crucial. If you prioritise the investments before the environmental protection, the result shall be the ruthless onslaught against unprotected natural resources, their capturing and the elimination of local communities from the decision-making process. In such a vicious circle, citizens' protests are the result of a bad policy. However, there are no changes in policy and the construction of SHPPs continues under unsustainable legal and social circumstances.

This conclusion has also been confirmed by the outcome of the public policy for improving the use of renewable energy sources and the consequences of these public-political outcomes:

There was no energy transition in Serbia that would bring the country closer to the European Union objectives regarding the reduction of greenhouse gas emissions by 2030 and 2050. There are no indicators suggesting that this transformation of the energy system and society can be expected in the upcoming decades.

Ten years after the implementation of the provisions of the Energy Community Treaty, Serbia failed to increase the share of renewable energy sources in gross final consumption, and the share of renewable sources in 2017 was even lower than in 2009 as a base year.

Out of the planned 250 MW capacities of hydropower plants exceeding 10 MW, none was built, while out of 188 MW of small hydropower plants, a total of 62.9MW<sup>43</sup> was built, i.e. 3% of the total production of electricity from hydropower.

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43 This datum was taken from the Energy Community Secretariat for 2017.

# RECOMMENDATIONS

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At the end of this analysis, systemic recommendations were made that would allow the implementation of the principles of accountability, principles of environmental protection and respect for the rights of citizens, and in particular of the rights of local communities to a sustainable development. A mandatory compliance with the law was not mentioned in these recommendations, as this should not be a recommendation, but an underlying characteristic of a structured democratic society.

**Location and above all location** – the impact of each individual SHPP project should be determined on the basis of reliable and methodologically correct data collected in a particular location, primarily through field research. Where data are not available, the construction of SHPPs should not be allowed.

**Protection of valuable natural resources and watercourses** – it is necessary to establish watercourses, basins and zones where the construction of SHPPs is forbidden so that natural resources could be protected as a general interest goods through extensive and open dialogues.

**Modification of the National Renewable Energy Action** – it is necessary to modify the planning and strategic framework through public hearings and participation of all interested stakeholders in order to improve the use of renewable energy sources, re-examine the existing instruments and, by a social consensus, determine the direction of the market development of renewable energy sources.

**Modification of the regulations in the area of environmental protection, energy, planning and construction** – it is necessary to modify the regulations and to horizontally harmonise them in order to ensure the sustainable use of energy sources and to preserve natural resources. Above all, it is imperative to harmonise the Law on Planning and Construction with the Law on Environmental Impact Assessment in a way to ensure the adverse effects assessment in the phase prior to the building permit issuing. It is necessary to establish a mandatory assessment of the need to assess the impacts of projects of the construction of all hydro-power plants, in line with solutions adopted at the EU level.

**Ensure the transformation of the incentive system for production of electrical power from renewable sources** – it is necessary to speed up the transformation of the incentive system in such a way as to ensure competitiveness on the market of renewable sources and to increase production from those sources that are commercially competitive and the environmental impacts of which are environmentally, socially and economically acceptable.

**Drafting of planning documents at the local self-government level** – it is imperative to draft detailed planning documents (spatial and urban plans) at the local self-government level with a detailed description of locations where the construction of small hydropower plants is possible and conditions that need to be met in the planning and construction processes.

**Supervision and control** – it is necessary to ensure a continuous and well-planned inspection supervision over the construction of SHPPs and their work, a control of the compliance with environmental conditions and measures that are envisaged and approved at the stage of drafting of technical documentation and building permit issuing.

**Public participation and informing** – it is necessary to ensure efficient informing of the public about the process of adopting of planning documents and implementation of projects in the stage when all options are still open, when remarks and suggestions made by the public can still enhance the outcome quality.

**Civil society's timely reactions** – civil society should be involved in various stages of monitoring of plan and regulation adoption: in the technical documentation drafting and building permit issuing; and to be timely informed about potentially negative impacts on environment and local communities. This can be achieved through cooperation and solidarity, timely exchange of information and constant work on development of the civil society capacities.

**Participation in public policy creation** – if the civil society wishes to deal with the environmental protection in an accountable manner, it cannot

withdraw from the decision-making process at the local and at the national level. It is necessary to use all available institutional mechanisms in order to influence at an early stage the adoption of decisions that are socially, ecologically and economically acceptable.

**Solidarity in the local community** – local communities are sources of knowledge. In every place in Serbia, there are people who have knowledge and information and who can competently contribute to the public policy development. Civil society should develop the relationship of trust with the local community and enable the involvement of citizens in the activities of the association.

**Cooperation and communication with public administration** – in the public administration, at the local and at the national level, there people who are devoted and responsible while performing their duties. It is necessary to free these resources and provide to public servants support and protection when needed, i.e. when they point to an irresponsible actions or negligence of the public authorities. The key sources of information can be found in the public administration.



