

Bulgaria:

Centre for Environmental
Information and Education
(CEIE)

Za Zemiata, For the Earth

Croatia:

Green Action

Czech Republic:

Centrum pro dopravu a
energetiku (CDE)

Hnutí DUHA

Estonia:

Estonian Green
Movement-FoE

Georgia:

Green Alternative

Hungary:

National Society of
Conservationists - Friends
of the Earth Hungary
(MTVSZ)

Latvia:

Latvian Green Movement

Lithuania:

Atgaja

Macedonia:

Eko-svest

Poland:

Polish Green Network
(PGN)

Russia:

Sakhalin Environmental
Watch

Serbia:

Center for Ecology and
Sustainable Development
(CEKOR)

Slovakia:

Friends of the Earth -
Center for Environmental
Public Advocacy (FoE-
CEPA)

Ukraine:

National Ecological Centre
of Ukraine (NECU)

Comments on the Nenskra HPP project revised Supplementary E&S Studies

The revised Supplementary studies fail to properly assess the costs and benefits of the Nenskra HPP project, only focusing on the benefits of the project. The disclosed summary of the Cost Benefit Analysis critically lacks an assessment of the energy efficiency alternatives, the environmental externalities, the opportunity costs and even an economic internal rate of return has not been estimated. On the other hand, the CBA is not using real-time data, allowing for an exaggeration of the benefits of the project. Taking into account the above-mentioned it is clear that the quality of the disclosed summary of the CBA is very low and does not justify the need for the project.

Detailed in the sections below are concerns that address the low quality of the disclosed CBA summary, which in our view does not prove the project to be beneficial.

1. Lack of a detailed cost-benefit analysis (CBA) and no clear economic return

The updated Supplementary E&S Studies claim that “The economic cost-benefit analysis of the Nenskra HPP publicly disclosed in 2017 shows that the Project is cost benefit justified”. It is followed by a number of conclusions, which state: (1) the negotiated tariff in the power purchase agreement in real terms in 2019 will be US\$5.48/MWh less than estimates of the long run marginal cost of power in Georgia in 2019 prices; (2) the tariff is also lower than the price Georgia pays to import power in winter months from neighbours, including Russia, and; (3) Georgia will also benefit from tax payments to the government. Based on these conclusions, the document concludes that the net effect of this is US\$136 million net benefits in Present Value terms.

It should be noted that the CBA disclosed by the Government of Georgia represents simply a summary report and not a detailed analysis, as indicated in the updated supplementary studies¹. Thus the numbers provided in the study are aggregated data without detailed calculations and references, making it impossible to justify the final conclusions of the study, namely, what discount rates have been used while calculating the US\$136 million net benefits in Present Value terms and how has the long-run marginal cost of power in Georgia in 2019 prices been estimated.

In addition, it is notable that according to the Asian Development Bank's guidelines for the Economic Analysis of Projects², a project is

¹ “Economic Cost-Benefit Analysis of Nenskra Hydropower Project: Summary Report”, see: <http://www.energy.gov.ge/projects/pdf/pages/Nenskras%20Hidroelektrosadguris%20Proektis%20Ekonomikuri%20Sargeblanobis%20Analizi%201787%20geo.pdf>;

² “A well-conducted economic analysis should show that (i) a project is in line with the development context of a borrowing country and the ADB's country partnership strategy (CPS); (ii) there is strong rationale for the public sector and ADB to finance the project; and (iii) the selected project represents the most efficient or least-cost option among all the feasible alternatives for achieving the intended project benefits and, when benefit can be val-

economically viable if the Economic Internal Rate of Return (EIRR) exceeds the social discount rate. Yet in the disclosed CBA for the Nenskra HPP project, the EIRR was not estimated: *“We were not able to estimate an economic internal rate of return for the project (EIRR)”³*.

Moreover, the CBA is based on either unclear data and/or lacks key aspects that are essential for having objective and realistic conclusions resulting from the CBA.

1.2 Long term demand and option analysis

According to the European Commission’s “Guide to Cost-Benefit Analysis of Major Projects”⁴, in order to justify the feasibility of a project “The key issue is the demand for energy, seasonal and long term trends” as well as an option analysis, including a comparison with: (1) the previous situation without the project; (2) possible alternatives within the same infrastructure; and (3) possible realistic alternatives for producing the energy required, including launching actions and policies aimed at energy saving instead of building a new power station⁵.

The disclosed CBA reviews only two scenarios to reduce the long term supply gap of electricity in Georgia, referring to ESCO data⁶ and not providing the exact source of information: Fast growth (by 8% annually) and Slow growth (3% annually), concluding that, in both scenarios, Georgia will need to build more capacity to fully meet demand. It is notable that Georgia does not have a long term energy needs assessment, while the electricity market operator (formerly ESCO) only registers current electricity data and does not provide forecasting. Thus it is vague how, and based on what data, were the scenarios created.

In addition the CBA lacks an analysis of alternatives aimed at saving energy (energy efficiency) instead of new construction. Without proper analysis of these components the project can not be justified.

1.3 Lacking development scenarios and price dynamics

Another critical aspect missing in the document is a detailed financial analysis. According to European Commission guidelines, “In order to make an accurate estimate it is necessary to refer to the development scenarios of the other sectors.”⁷ Moreover, it is essential to evaluate a forecast for price dynamics, preferably for 30-35 years.

While development scenarios for the other sectors of Georgia are missing, the forecast for electricity prices is based only on World Bank estimates for Georgia, not taking into account current price dynamics. According to the document it will be roughly USD 78 per MWh in real terms in 2016, referring to the Georgia Power Sector Policy Note of the World Bank from June 2016. But the CBA does not mention the fact that the World Bank considers proposed high prices as challenges for the power sector for

ued, it will generate a positive economic net present value (ENPV) using the minimum required economic internal rate of return (EIRR) as the discount rate, i.e., the project has an EIRR higher than the discount rate.” <https://www.adb.org/sites/default/files/institutional-document/32256/economic-analysis-projects.pdf>

3 3.1.1 Results for Georgia;

4 http://ec.europa.eu/regional_policy/sources/docgener/guides/cost/pdf/3_full_en.pdf

5 http://ec.europa.eu/regional_policy/sources/docgener/guides/cost/pdf/3_full_en.pdf

3.2.3 Feasibility and option analyses

6 Figure 2.4: Long-term Demand and Supply Forecasts for Georgia – By ESCO

7 3.2.4 Financial analysis

Georgia, caused by the current stock of Power Purchase Agreements, including for the 280 MW Nenskra HPP project. Hydropower projects in Georgia have not taken a least-cost framework into account, resulting in increased fiscal pressures for the economy.⁸ Thus the World Bank recommends that Georgia should update its existing power market model, otherwise it will lead to higher impacts on the bottom 40% of the population⁹.

It is notable that these data significantly differ from real numbers. According to the Georgian National Energy And Water Supply Regulatory Commission's (GNERC) resolution, the price of TPP-generated electricity in 2017 has ranged from USc 3.7/kWh (USD 37 per MWh) for the Gardabani TPP to USc 5.0/kWh (USD 50 per MWh) for Block 9 and USc 5.9/kWh (USD 59 per MWh) for Blocks 3 and 4, while the average import price in 4 months of 2017 was USc 4.1/kWh (USD 41 per MWh). Therefore it is unclear why the CBA does not focus on real-time data in the electricity sector, which is almost half of the price used in the CBA and expected to decline further.

1.4 Energy dependence

The evaluation and determination of value attributed to a greater or lesser dependence on energy from abroad is a further very important aspect that needs to be properly taken into account in the CBA. According to the document, "The Project is most sensitive to changes in the price of imported Russian electricity. We estimate that a 22.13 percent decrease in the price of Russian electricity will result in the Project breaking even in economic terms. This equates to a decrease in the price paid of US\$17.70/MWh below the current price of US\$80/MWh."¹⁰

The CBA focuses only on the import of electricity from Russia and does not mention import possibilities and prices from other neighbouring countries or the export potential of the country which has been depleted because of the drastic fall in electricity prices in Turkey. This is an important aspect to consider as the CBA states that ESCO will earn benefits from promoting "exports by ESCO during the summer season".

1.5 Estimation of environmental externalities missing

An evaluation of the environmental externalities is one of the main shortcomings of the CBA. According to the European Commission Guide, "The analysis should consider: the cost of the measures necessary to neutralize possible negative effects on the environment (air, water, land) which derive from the implementation of the project; the cost of other negative externalities which cannot be avoided such as loss of land,

8

<http://documents.vsemirnyjbank.org/curated/ru/229391493845045659/pdf/P161767-Georgia-PLR-Approved-for-SECPO-04072017.pdf> Report No. 108467-GE; page 13 and page 47;

9 "According to the World Bank's assessment if the current Georgian power market model is not updated, operating the power system will lead to higher costs and higher impact on the bottom 40 percent of the population. For example, since 2014 the government has entered into power purchase agreements (PPA) to stimulate hydropower and achieve energy self-sufficiency through public-private partnerships. However, the associated contingent liabilities and risks have not been properly accounted for, which increased exposure to fiscal risks. While PPP frameworks balancing private and public sector risks are necessary and useful for Georgia (as witnessed by experiences from Colombia, Panama, Chile, Philippines, among others), the key issue for Georgia is to establish a predictable and level-playing Power Market. The government already has started accounting of fiscal risks and significant steps were taken to assess and disclose fiscal risks stemming from PPAs."

10 4.1 Sensitivity Analysis Results;

spoiling of scenery, etc". The disclosed CBA lacks both analyses and focuses only on savings from avoided CO₂ emissions. Without monetizing the costs of the project on the environment, including its impacts on river ecosystems, 700 hectares of forest and its biodiversity, the CBA cannot be deemed to be sufficient.

1.6 Opportunity cost

A calculation of opportunity cost is also missing in the document. The European Commission guideline directly states that opportunity cost has to be an essential part of the CBA. The opportunity cost in the case of Nenskra could be costs related to the lost income for the Country and for the local population from ecotourism, hiking and extreme sports development (rafting) in the valleys as a result of the project.

2. Contract transparency

The confidentiality of the contract for the Nenskra hydro project remains one of the most concerning issues. Although part of the contract has been disclosed, information related to the financing plan, energy rate, tax implications, put and call option are missing. The power purchase agreement (PPA) still remains confidential. Thus the disclosed contract and summary of the CBA further raise questions about the feasibility of the project.

3. Candidate Emerald site/Bern Convention

The Project Summary Document of the EBRD¹¹ claims that "The Sponsor adopted a precautionary approach and has assessed the project both as if it is located within and outside a protected area." Despite such claims, no appropriate assessment on the impact of the project on any Emerald site was done. Habitats were not assessed according to the classifications of Bern Convention [Resolution 4 \(1996\)](#) - EUNIS or Palaearctic classification. This was proven in page 73 of the Public Disclosure Report: "It is therefore not possible to directly compare the results to the EUNIS habitat results in all instances." Additionally, no percentage of the population of species or percentage of the area of habitats within the Emerald site to be impacted by the project was calculated. So there is no objective scientific assessment in any of the studies related to the project as to how significant the impacts would be on the Emerald network in Georgia.

In addition, a the revised E&S Studies (Vol 4: Biodiversity Impact Assessment) claims that "no Critical Habitats were assessed to be present within the Project-affected area (dam and reservoir, powerhouse and penstock, Nakra water intake), as the habitats present were considered to be modified through logging and stock grazing. While emblematic species such as brown bear, lynx and wolf are present in the Project area, none of the habitats present were considered to be Critical for the conservation status of these species as it was considered that habitats outside the Project area."

These claims contradict the recent position of the Bern Convention and the conclusions of the Biogeographical seminar held by international experts in Tbilisi in November 2017. In a letter sent to the Ministry of Environment and Natural Resources Protection (and also copied to the EBRD) by the Bern Convention Secretariat, it is stated that "The Bureau recognised that the site comprises some of the most pristine nature areas in Georgia and expressed again its concern over the fact that the area of the Svaneti 1 Candidate Emerald site has been drastically reduced," and

“The Bureau decided that there is a strong need to receive further clarification on the exact species and habitats present in the area, and on how the exclusion of some parts of the candidate site will impact the overall sufficiency of the Emerald Network”. The Bureau also draw “the attention of national authorities to the possibility of organising an on-the-spot assessment to the area in 2018, after the November 2017 Seminar in Tbilisi¹².” (**See Annex 1**)

In the final conclusions (**See Annexes 2, 3 and 4**) of the Biogeographical seminar the experts agree that the reduction of the Emerald sites "Svaneti" and "Racha" in the West Caucasus has led to insufficient protection of seven species and 15 habitats in the Alpine region of Georgia. The developments are especially concerning for brown bear, lynx, greater horseshoe bat, Alpine longhorn beetle, beech forests, fir forests, riverine scrub and alder galleries along the rivers. Their ‘sufficient’ status of 2015 was changed to ‘insufficient moderate’, which means that new sites or the extension of existing sites should be proposed by the country. The conclusions prove the importance of excluded areas such as the Nenskra and Nakra valleys and most probably will lead to the opening of a file in 2018 following the Bern Convention complaint regarding the construction of the Nenskra Hydropower project.

4. Environmental flow

The newly revised supplementary studies of the Nenskra HPP do not properly address issues concerning environmental flow which have been raised by Green Alternative. Instead, the revised E&S Studies provide even more questionable and contradictory explanations. They claim that “the ecological flow is not the critical factor with regard to maintaining ecological continuity and no net loss of biodiversity”, based on the assumption that “at the confluence with the Okrili River located 4 km downstream from the dam, the Nenskra flow will represent 15% of the existing situation,” and “Upstream from the powerhouse, the Nenskra flow will represent 40% of the existing situation without the dam”.

It needs to be noted that this information is not substantiated further in the Studies. According to volume 5 of the E&S Studies (3.1.1 input data), the following river flow data has been used: 1) Daily flow rates for the Nakra River recorded at the Naki gauging station, 2) Mestiachala River, recorded at the Mestia gauging station, both covering the period 1956-1986 and monthly flow rates recorded at the Lakhami gauging station on the Nenskra River, plus ongoing hydrological studies for the purpose of estimating the Maximum Probable Flood, designing the spillway and for determining power production. Moreover, Chapter 3 “Biodiversity flow measurements: Summary table” provides information about single measurements of river stretches conducted between October 6 and October 9, 2015 on the rivers Nakra, Nenskra, Tskhvandiri and Okrili.

These claims are misleading, as up-to-date information about the Nenskra and Nakra river flows, as well as their tributaries, does not exist to allow the drawing of such conclusions. It needs to be mentioned that such an approach also represents a violation of the environmental and social policy of the EBRD, as confirmed by the EBRD’s Project Complaint Mechanism in the cases of the Dariali and Paravani HPP projects .

12 Letter of Bern convention to Ministry of Environment and natural resources protection; November 13th, 2017;

Moreover, the E&S Studies do not specify the methodology of the environmental flow used in the project. One document (Volume 4: 7.3.1.4 Environmental flow: change in river flow and water quality) stressed that hydraulic studies were conducted by Stucky and SLR in order to assess flow and changes in water depth focusing on river velocities. It is unclear how the consultants arrived at the conclusion that either 15% and/or 40% or “environmental flow of 0.85 m³/s will be sufficient to support aquatic faunal populations downstream of Nenskra Dam” without using any environmental flow determination methodology (neither holistic or hydrological) or having up to date data on the river flow rates of the Nenskra and Nakra rivers and their tributaries.

By contrast, according to information provided in the Non Technical Summary (Paragraph B “predicted impacts on Hydrology”), the project completely changes the seasonal natural flow regimes of the Nenskra and Nakra rivers: “Average monthly increases range from 5% in June - which is the month with the highest flow rate - to 300% in winter, when there is naturally a low flow rate. The downstream flow will be also significantly influenced by the hourly variations in the discharge of the powerhouse turbines causing instantaneous Nenskra flows that are higher than those of the natural conditions. In February - when the river flow is at its lowest - the peak energy turbinning would cause the river flow downstream of the powerhouse to vary from 3 to 50 m³/s.”

Therefore, it is unclear what studies have been used by the authors in order to conclude that “the change in river levels and flow velocity which will occur as a result of the dam could be of benefit to fish populations in some sections of the river”, or in which part of the supplementary studies was disclosed “the assessment of the effectiveness of the ecological flow” that concluded that planned ecological flows will be sufficient to support aquatic faunal populations.

The report ‘Fish, Invertebrates and Otter Monitoring’ published on the project website¹³ raises even greater concerns, first by pointing out the value of the Nenskra and Nakra rivers: “By biological status, both Nakra and Nenskra rivers has high status (extremely good quality), except downstream Chuberi bridge where it reduces to good one (good quality),” and then by pointing out the possible consequences of reduced flow: “In conditions of low flow, the capacity of the rivers (both Nenskra and Nakra) to move stones is reduced. Without high flow events, landslides could lead to establishment of natural unpassable barriers for the trout upstream migration.”

4.1 Environmental flow and microclimate

A further concerning issue relates to the impacts on the microclimate of the valley. The document claims that “reduced flow of water is not expected to cause a change in the quantity of evaporated water as the surface area of the river in Chuberi will not be significantly modified, and the project is not expected to have a discernible effect on water temperature.” It further states that “In summer with the dam, the spray produced can be expected to be of a similar order of magnitude to that produced in a dry-year without the dam.”

13 http://nenskra.ge/inc/uploads/2017/04/Blue-Rivers-Report_Nov2017_ENG.pdf

It should be noted that hydraulic modeling of the rivers is not provided in the E&S Studies to assess the modified river and flow in the riverbed, including the area that will be watered in the riverbed, and thus such claims are not substantiated. Moreover, it is highly unlikely that drastic changes in the hydrological regimes of the river (reducing to 5% in June, and increasing to 300% in February) will not impact the surface area of the river when there are clear examples of other HPPs newly constructed in Georgia with dried riverbeds.

5. Associated facilities

According to the updated E&S Studies, “At the start of public disclosure in February 2017, the reported location of this substation was at Khudoni, but it is now currently proposed to be located in the Nenskra valley close to the existing 500 kV Kavkasioni overhead line in order to enable a connection into this transmission line,” and “the location of the new 500/220/110 kV substation as well as the alignment of the proposed 220 kV Transmission Line were yet to be defined by GSE when the present report was completed. The expected completion dates for required substation and transmission lines are as follows: • 2017: preparation of the feasibility study; and • 2018 - 2020: detailed design, ESIA and construction.”

As in the case of the previous version, the ESIA does not assess the environmental and social impact of the full scale development of the associated facilities, essential for the project's viability, including the 220kv transmission lines and power house. It should be noted that the location of the powerhouse has also been changed. The EBRD's Environmental and Social Guidance Note for Hydropower Projects, states “The EBRD's PRs do not apply to these associated activities or facilities but the environmental and social assessment process will need to identify and characterise potentially significant environmental and social issues associated with them, as defined by Performance Requirement 1 (PR1), paragraph 9.”

In addition, it goes against the ADB's requirement that “Project impacts and risks should be analyzed in the context of the project's area of influence. The area of influence may span: “Associated facilities not funded by the project but whose existence and viability are entirely dependent on the project and whose services are essential to project operation”.

“Even though the impacts and mitigation measures from the development of associated facilities do not have to be analyzed in detail in the EIA/IEE of the project financed by the ADB, basic information about the main design features, their location, the significance of potential impacts, the required approval process, and institutional arrangements should be described in the EIA/IEE. The ADB reviews these facilities as part of its due diligence to determine if the associated level of impacts and risks to the environment and people is acceptable, recognizing that the borrower/client should address these impacts and risks in a manner that is commensurate to the borrower/client's control and influence over the associated facilities.”¹⁴

14 <https://www.adb.org/sites/default/files/institutional-document/33739/files/environment-safeguards-good-practices-sourcebook-draft.pdf>

6. Impact on biodiversity

Quality of fauna, flora and habitats surveys

The quality of the fauna, flora and habitats surveys was very poor during the period 2011-2014 (for example, no bear presence was found) and this was one of the reasons to completely change the methodologies for the Supplementary Package. But in 2015 only autumn months were covered and in 2016 only a few mammal species were studied. As a result the 2015-2016 studies do not compensate for the poor quality of the previous studies. There is no proof that any onsite study of breeding birds was carried out; for example, the number of pairs of species present in the reservoir site is unknown.

No appropriate assessment on the Emerald site

No appropriate assessment on the impact of the project on any Emerald site was made. Habitats were not assessed according to the classifications of Bern Convention Resolution 4 (1996) – EUNIS or Palaearctic classification. This was proven in page 73 of the Public Disclosure Report: “It is therefore not possible to directly compare the results to the EUNIS habitat results in all instances.” Additionally, no percentage of the population of species or percentage of the area of habitats within the Emerald site to be impacted by the project was calculated. So there is no objective scientific assessment regarding how significant the impacts would be on Emerald sites.

The 2017 Supplementary Studies state that “*The objective of the present chapter is not to justify, a posteriori, why the proposed Nenskra HPP is the least-impact alternative to achieve the power production objectives required by the Government. There are other considerations such as politics preference (...) which have - and will - prevail-(ed).*” This means that there was no scientific reason for choosing Alternative 1: Nenskra Storage and Nakra Diversion Project.

Lacking precautionary principle

The leopard was evaluated with Scientific Reserve in the Alpine Region during the last Biogeographical seminar in Tbilisi in November 2017. This means that its presence in the region is unclear. The precautionary principle should be taken for endangered species such as this one, moreover it is reported for Emerald sites just north of Svaneti in the Russian Federation. Impacts on Tur (and also on Leopard, Caucasian snowcock, Caucasian grouse) would not come directly from the construction of the reservoir. As stated on pages 5 and 9 of the Public Disclosure Report: “*A number of mitigation actions are being implemented, including providing access roads to new pasture lands*”, and the “*Project is expected to employ a total of 1,142 people*”. Consequently there will be a large increase in human presence and activity, with disturbance and poaching pressure being felt by high-mountain species.

Onsite study of breeding birds missing

There is no proof that any onsite study of breeding birds was done, for example, the number of pairs of species present in the reservoir site or the exact location of breeding territories.

The sentence “While habitat loss could occur, bird welfare will be maintained” shows the lack of understanding from the authors of the reports on the impacts the project could have on birds in general. How would the welfare of the booted eagle be maintained when its nesting tree is under water from the reservoir? As stated in the IUCN Red List assessment for the species: “Habitat loss is also due to urbanization, construction of reservoirs and fire.”

No proper vegetation studies

Vegetation surveys were not carried out according to Bern Convention classification. No assessment of the habitats areas was carried out for Emerald sites to allow comparison with areas to be destroyed by the project.

Mitigation strategy

A mitigation strategy should propose real actions to mitigate the loss of habitats. A detailed floristic inventory and habitat loss area mapping and survey should be done during the impact assessment phase, not after the project is approved and funding for the project ensured. How can the total project costs be calculated if mitigation costs are unknown?

Anti-poaching measures

The proposed measures are not onsite anti-poaching measures. Some questions to be answered include: What new roads will be opened? How would they facilitate poaching? How will more than 1000 workers be controlled? How will access to the winter dens of the brown bear be controlled? How much will the mitigation measures cost?

Detailed Reforestation Management Plan missing

A detailed Reforestation Management Plan has not been presented up to now, and it is unclear where it would take place, it is impossible to assess what can be compensated.

We have shown proof of the value of forests at the reservoir site, whilst JSCNH's statement that the majority of habitats are not of high conservation quality has no scientific grounding. On the map of www.intactforests.org the area of Svaneti is one of the last remaining territories in temperate Eurasia with pristine forests. The draft management plan for the proposed Svaneti National Park also noted the Nenskra and Nakra valleys as the core area for conservation. It is impossible for a Reforestation Management Plan to compensate for the loss of intact forests. There is no answer either to concerns about all non-forest habitats being lost.

Old-growth galleries of alder are common in the Nenskra and Nakra valleys, but not so common in the rest of Svaneti. Moreover, in the area of the Nenskra reservoir the valley is very wide with a huge area of intact alluvial forest. Impacts on alluvial forests at the reservoir and from changes to the hydrological regime downstream of the Nenskra, Nakra

and Enguri Rivers were not assessed at all, and no mitigation/compensation was proposed.

We would like to add that, according to the EU Habitats Directive, alder galleries are listed as priority habitat 91E0.

Riparian habitats downstream of the Nenskra Dam

The Nenskra Dam will stop sediment flow, which halts the formation of habitats downstream depending on sediment. So the claim about the creation of “more river braids, islands or ponded areas” is hard to substantiate.

In major dam schemes, the floodplain below the dam experiences a reduction in braided channels, and a halt on the reproduction of most types of wetland habitats dependent on floods and on the active growth of pioneer forest species which were previously constrained by flooding/inundation.

The assessment should be concerned with not only the quantity but also the quality of habitats that are destroyed or degraded. It is possible (although it does not have to be true) that some areas could increase downstream from the HPP, but this will no longer be the same habitat qualitatively. The sensitive balance in these types will inevitably be affected first by the loss of species that have adapted for centuries to live under such rare conditions: strong torrents in summer, and drought during winter. As both conditions will be almost completely changed on the Nenskra and Nakra Rivers, conditions will be created for the new areas to be colonized by species living in the surrounding habitats (which will change the habitat), and those of the most valuable and endangered species will undoubtedly disappear.

JSCNH is responsible for conducting a proper assessment of the impact on riparian habitats and for reducing uncertainty in predictions. Valley bottom habitats are physically shaped by the action of water, usually when a flood flushes through (90% of sediments are moved by floods). The watering of many habitat types also happens most intensively during flood events.

Therefore they need to know how the hydrograph changes (if available, the most optimal would be based on weekly values for typical years) with different water availability (say 10%, 25%, 50% and 75%).

We would like to stress that all riparian habitats were assessed during the Biogeographical seminar 2017 as ‘Insufficient moderate’ in the Alpine Region of Georgia, because not enough Emerald sites were proposed for protection.

Lack of information on endemic species

There is a lack of information on the number of endemic species and the importance of the populations to be destroyed. We should add that the Svaneti floristic region has some local endemic plants – *Cirsium albowianum*, *Hieracium abakurae*, *Hieracium chlorochromum*, *Lamyropsis charadzeae*, *Potentilla sommierii*, *Potentilla svanetica*, *Euphrasia svanica*, *Campanula svanetica*, *Campanula engurensis*, etc. Special research is needed for these plants.

Impacts on birds and mammals

Discussions with local people is not a sufficient methodology to search for core areas for the species. This goes especially for lynx which is a very difficult to observe species, as was proven in the case of the Mavrovo National Park in Macedonia, where the EBRD's Boskov Most project was planned to be situated.

A ban on the work force hunting during construction and the implementation of education in schools only partially covers poaching problems, but habitat destruction and increased disturbance issues are not covered. The proposed anti-poaching measures could not mitigate the easier access during all months of the year to the upper parts of the Nenskra and Nakra valley.

Approximately 1,000 tur live in the Svaneti region in Georgia (NACRES, 2006). Our estimation is that at least 150 animals live in the Nenskra and Nakra valleys, but the numbers could be much higher. The construction of the Nenskra project could threaten 3-4% of the world population by poaching, disturbance and the destruction of winter habitats (the world population is estimated at 5,000-6,000 animals by Weinberg (2004)).

There is, furthermore, no answer as how many breeding pairs of Booted Eagle, Red-breasted Flycatcher, Caucasus Chiffchaff, Caucasian Snowcock, Caucasian Grouse, Green Sandpiper will be impacted by the above-mentioned problems.

Lack of fish data

A lack of fish data is one of the biggest problems of the biodiversity assessment. As written in the Supplementary Package, "The aquatic biodiversity survey had to rely on a habitat assessment and the examination of fish caught by local anglers as electro-fishing was not licensed in Georgia at the time of survey.". However, after the project construction starts in the Mitigation Strategy, in the same document other techniques were proposed: "To catch adult fish the following devices will be used: box traps, casting net, fishing rods, trotlines and seine netting. The juvenile trout will likely be caught using seine/landing nets, drift traps and cone traps."

An additional survey made by Blue Rivers between September 5 and 9, 2017 only proved the need for more detailed assessments in better season. The survey was carried out over only five days and after the second day rain caused "significant raise of water level". Enguri River was not monitored at all and "2 monitoring stations (...) were not reachable because of canyon shape of river valley and high water level". Also: "It is worth noting, that the surveys were conducted in the period of high water, so the presence of the riverbed channels should be reconfirmed during the low flow."

7. Social impacts assessment, land acquisition and livelihood restoration

The ESIA concludes that only 89 families in both gorges would be impacted directly by the project, therefore the social impacts are not that significant. However, the broader impacts on vulnerable segments of the population –such as women, the elderly and internally-displaced people – have not been assessed. In the updated ESIA, while the project company at the end recognizes those groups as vulnerable, the action plan does not go beyond proposing 15 percent of workplaces for women as an equal

opportunity. For all social impacts mitigation measures (such as repair of schools, ambulances, roads and water system) the company has pledged USD 4 million to the community, underlining that it would be based on the community's choice. However, as there is no clear assessment of the broader community impacts, it is almost impossible to say what the compensation would mitigate.

A field investigation by Bankwatch in July 2017 found evidence that the Land Acquisition and Livelihood Restoration Plan (LALRP) developed by JSC Nenkra Hydro is inaccurate and fails to properly map, assess and provide adequate compensation for the project affected persons (PAPs), especially for those who are significantly and severely affected by the project.

In its response JSN Nenskra (<https://goo.gl/Nsesav>) admits that mistakes could have been made in the mapping and in the informing about compensation. Given the scale of the project, and the impacts it will have on local communities, it is difficult to imagine how people were left out of the consultation process, especially people that own land and assets in the project area, of which the entire community is aware, be it in the Nenskra or Nakra valleys. The company claims that door to door socioeconomic surveys were conducted in 2015 and 2016 and included all residents from the two valleys, including the powerhouse site.

The company also explains that the compensation process is not yet finished and this might be a reason for people not being aware of the entire compensation scheme. In this regard, this is proof of the company's failure to respect the timeline approved by its supplementary ESIA.

Only in November 2017, an updated ESIA presented the compensation scheme and its operational guidelines for traditionally-owned but not legally recognizable lands - like forests - under Georgian legislation. However, according to the LALRP, the final number of affected people with traditional properties is still unknown. "In September 2017, when writing this LALRP, the number of households to be considered as traditional users of the Machlitchala and KvemoMemuli pastures was being discussed with affected people. If the figures provided hereafter evolve as a result of the on-going discussions, this will be reflected in the monitoring reports."

In order to pay compensation for non-legalizable property under Georgian legislation, the land plots will be first registered under the State.

Therefore, the amount of people with non-legalizable ownership is still not defined. Moreover, according to the LALRP, "For the non-legalizable land plots, compensation arrangements will be issued in the names of both spouses or heads of household. Whenever needed, assistance will be provided to open bank accounts under the name of husband and wife. **The compensation will be paid to the household head only if the affected household is female headed.** For the registered land plots, payment will be made to the titled owner, and the Project will ensure that both spouses have the same level of information of the payment and compensation process." (Page 75, volume 9).

There have been a number of concerns regarding the traditional land users compensation, including:

1. The compensation scheme for non-legalizable land plots is not available in the Georgian language.
2. There is still not a clear number of people who own the properties in the area.
3. According to the recently published contract, "If for any reason under applicable law, the GOG is unable to transfer to the company clear title to any parcel of the required lands, the GOG shall grant to the company an irrevocable valid and unencumbered right to build in respect of each such parcel of required lands that can not be transferred to the company under applicable law."

Taking into account the fact that the company could not manage to identify the number of directly impacted households over the last few years, including those with non-recognizable land rights, there is quite extensive scepticism about how effectively it will implement the LALRP in the months ahead.