

Green Growth through Green Grabbing?-A case of second largest hydropower dam construction in Georgia

Abstract

The concept of green economy is considered as new paradigm for achieving sustainable development and fighting global poverty. Development oriented organizations, such as UN, World Bank and OECD further advocate “Green Growth” as a new economic model to integrate “environmental considerations and the value of natural capital into economic and development decision-making” (OECD, 2013). This model has been particularly endorsed for developing countries, with the World Bank referring to green growth as the “only way to bring developing country to the level of prosperity to which they desire”. As a consequence, in recent years, international policymakers have been actively promoting green investment as means to build economies that are more climate-resilient and less environmentally damaging (OECD, 2011 and World Bank, 2012).

While the Green Growth can be the only way for sustainable growth, the question is, if the developing countries can tackle such growth? In particular, is “inclusive and equitable” governance- which is viewed as precondition for development by OECD -in place to engage in green growth objectives and address all three critical pillars of sustainable development-economic, environmental and social sustainability? Or are there trades-offs to be made between these three critical pillars? If yes, then the question of whether “green growth” is actually environmentally led growth to contribute to social equity, or is it just a means to legitimize appropriation of natural resources and capital accumulation- “green grabs”, remains debatable.

Construction of KHUDONI hydropower project is one such controversial case. On one hand, the project is expected to contribute to renewable energy production, reduce country’s current power deficit and its dependency on expensive energy imports from neighboring countries. On the other hand, the project is expected to result in the displacement of unique ethnic groups, loss of biodiversity and cultural heritage. The project has faced popular civil protests, as locally affected stakeholders are against the project and are not agreeing to resettlement. The environmentalists are labeling project as vehicle for water and land grabbing; the Government of Georgia is challenged with dilemma of how to fit desired large-scale private sector investment into a larger system of conflict prevention and risk mitigation.

On the empirical analysis of the KHUDONI HPP case study, the paper highlights the conflicted views on sustainable economic development and poverty alleviation. It screens proposed private sector investment into KHUDONI HPP against three critical dimensions of sustainable development (1) Economic Impact (2) Environmental Impact and (3) Social impact and evaluates a role of involved actors to support or undermine natural resource management. It then questions, if green grabbing- appropriation of land and natural resources- under green agenda of KHUDONI project is justifiable.

Key words: Green growth, green grabbing, community resistance, sustainable economic development, governance.

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Background Information:

As a non-Annex member of United Nations Framework Convention on Climate Change (UNFCCC), Georgia has been a strong supporter of “green” economic activity focusing mainly on renewable energy and potential of clean energy production to promote sustainable economic development. Green Growth in Georgia is advocated to open country’s “rich natural capital to new business opportunities” without “compromising the long-term assets this natural capital holds”.

This concept of “green growth” has indeed opened up new opportunities for increasing the share of renewable energy production mainly through investments into large scale hydro power projects and supporting infrastructures (transmission line). The renewable energy now accounts for 92% of the Georgia’s energy mix, following USD 1.3 billion of foreign direct investment since 2007. The Strategic objective of the Government of Georgia is to “satisfy 100% of the country’s demand for electricity by hydropower produced in Georgia. Georgia is to become an important exporter of electricity to Turkey, Europe and Middle East”¹ In this context, by the end of 2013, the memorandum of understanding agreements between the Government of Georgia and various investors were signed for construction of 3 large (capacity greater than 50 MW), 26 medium (13-50 MW), and 40 small scale (capacity less than 13 MW) hydropower plants. The investment into renewable sector is set to grow to USD 2.5 billion by 2020, according to a new report published by the Ministry of Energy.

This increasing importance of hydropower is explained by availability of abundant water resources-2500 rivers across the country-capable to produce 15000 MV of hydropower capacity and with an average annual production of 50 billion kilowatt hours. To utilize the hydropower potential, the local government has introduced number of initiatives to promote investments in the renewable energy generation. The initiatives targeted both sector wide and country wide economic and institutional reforms. The short summary of reforms/efforts undertaken by the Georgian Government is summarized below:

Country wide incentives	Sector wide incentives for investors
• Liberal Tax Code;	• Greenfield HPP’s developed on “BOO” ²
• Tax-Free Regimes (FIZ, FTZ) and incentives;	• Deregulated market for new HPPs
• Preferred Trade Regimes with Major Trading Partners;	• State land to be transferred to investor by a nominal price
• Anti-Corruption efforts;	• Free third party access to grid
• Low Cost & Skilled Workforce;	• No export license or VAT for electricity exports
• Liberal Labor Code;	• Long-term PPA with ESCO and TSO
• Investor Protection Regulations;	• Cross Border Trade Agreement with Turkey
• Investment Guarantees;	
• Choice of Law for Contracts;	

¹ “10-Point Plan” of the Government of Georgia and www.geostat.ge

² Effective from year 2008, HPP’s are granted to investors based on Build-Own Operate terms

<ul style="list-style-type: none"> Ñ International Dispute Resolution Mechanism. Ñ Development of necessary infrastructure (roads, railways, airports, transmission lines) 	<ul style="list-style-type: none"> Ñ Only 20% to be left in Georgia (The three winter months during the first 10 years of operations).
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It should be highlighted, that while hydropower is considered a renewable resource as it uses the earth’s water cycle to generate electricity, yet, developing hydropower puts pressure on environment and local people’s live hoods. Some of the impacts of the hydropower sector include habitat loss, displacement of local communities and emissions.

In Georgia, the HPP investor is required to obtain Construction Permit and Environmental Permits to go forward with HPP development. However, the environmental and social impacts are not always appropriately addressed in current environmental assessments of HPP in Georgia:

Weak environmental legislation and its enforcement in Georgia

The environmental legislation governing environmental protection is considered weak if compared to international standards governing the energy sector. Financial Institutions investing in the Georgian power sector often require Environmental and Social Impact Assessments to take into consideration international standards on environmental and social Sustainability. For example, IFC and EBRD stipulate compliance to local legislation as well as FI specific “Performance Standards on Environmental and Social Sustainability”.

Furthermore, the public involvement in ESIA process is limited to information provision and consultation. According to CENN study “Assessment of Effectiveness of Environmental Impact Assessment (EIA) System in Georgia”, typically, “the public has no opportunity to influence decision making process”. According to the same study, the necessary skills to assess the EIA report is also missing, which affects the quality of review process and conclusion of state ecological expertise.

The industry is characterized with poor enforcement. For example, during HPP development, the sites are not audited by local agencies to check compliance to the requirements sited in respective EIA reports. The weak monitoring and follow up can be attributable to lack of financial and human resources at the Ministry of Environmental Protection. Furthermore, the general attitude toward environmental protection is also weak in the country, as such, environmental consideration only carries formal role and is often regarded as least priority by the businesses.

Therefore, while Georgia launched number of initiatives to promote its green growth objectives-to shift sources of energy production from fossil fuel to renewable energy-; it can be argued, that the stronger emphasis has been placed on economic pillar of sustainable development. The complimentary environmental and social dimensions of sustainable development are currently weak, threatening to result in irreversible negative impacts on biodiversity and increased costs to poor and vulnerable societies. To further demonstrate viability of the statement, the paper draws upon the case study of KHUDONI hydropower development project in Georgia.

Labeled as vehicle for water and land grabbing by the environmentalists, the Khudoni Hydropower Project (hereinafter, Khudoni HPP) is argued to be the second largest hydroelectric dam in Georgia, with an installed capacity of 702MW and the annual electricity generation capacity of 1,500 million kW. The project is expected to attract up to USD 800 million investments in Georgia and decrease the country's dependency on imported energy during high peak winter period and deliver reasonably priced energy into the national grid. Furthermore, according to the former Minister of Economy, Mr. Murtskhulava, throughout the project lifespan, the KHUDONI HPP is expected to contribute US\$ 410 million to local economy in form of tax payments.

Despite the economic advantages of Khudoni HPP project to local economy, the implicit costs associated with the Khudoni HPP include the (1) displacement of unique ethnic groups (2) loss of biodiversity and (3) loss of cultural heritage.

Whilst the Georgian government has signed a memorandum of understanding (MOU) with the project promoters in 2009, the civil protests and inability of the project promoters to agree with the local community on resettlement terms has hampered the project implementation. The positive resolution of public consultations, which is required to complete environmental impact assessment and receive approval for the project from the Ministry of Environmental Protection of Georgia, has not been achieved. The local community is however left vulnerable to appropriation of land and resources, as the Georgian legislation allows for "eminent domain", a right to seize a private property of the population without their consent on the premise of public necessity.

The Environmental Impact Assessment report prepared by the project promoters and disclosed to the public was also questioned, with the opponents arguing that the environmental risks are not being sufficiently addressed. The adequacy of the Georgian environmental legislation to address and monitor the environmental and social risks has also been challenged.

The new government, that took office after the presidential elections in 2013 promised to take a closer look at the project. Soon after the renegotiations on MOU has started. In his speech, the Minister of Energy, Mr. Kaladze has highlighted the importance of the Khudoni HPP construction to the local economy. He further added that the social issues have been identified as the key impact of the project and that the Ministry of Energy will ensure that the social aspects of the project are dully addressed, with each household to be resettled, compensated and fully satisfied.

Shortly after, the Ministry of Environmental Protection has contacted the Netherlands Commission for Environmental Assessment with a request to review the Environmental and Social Impact Assessment (ESIA) for the Khudoni HPP project against EU legislation and guidelines for the World Bank and the International Finance Corporation (IFC). The findings demonstrate that the scope of the project impacts exceed beyond the social impacts. It has been recommended that "the Ministry of Environment cannot yet take a decision on Khudoni

HPP, as essential information is lacking in ESIA. To remedy observed shortcomings, additional activities are necessary, requiring at least one year”.

While the final decision on the project approval rests on the Government of Georgia, the paper attempts to analyze the proposed private sector investment into KHUDONI HPP against three critical pillars of sustainable development (World Bank, 2012). These are: economic sustainability, social sustainability and environmental sustainability. It then questions, if green grabbing-appropriation of land and natural resources- under green growth agenda of KHUDONI project is justifiable.

The paper is divided in three parts. The first part presents a brief overview of the KHUDONI HPP development project and key actors. The second part evaluates the proposed private sector investment across three critical dimension of sustainable development noted above and third part concludes.

The analysis is based on empirical evidence derived from newspapers, NGO and international donor organization reports, Khudoni Hydropower official documents and various governmental documents (e.g. policy frameworks, official statistics). The negotiations and debates around the project of various stakeholders are also taken into consideration.

Part 1: Background information on Khudoni HPP project

1.1. Khudoni Hydropower Project Development

The Khudoni Hydropower project (hereinafter Khudoni HPP) is initiated by Trans Electrica Georgia Ltd, an off-shore registered company. The MoU signed between the Government of Georgia and the Trans Electrica Georgia Ltd, obliges company to provide required electricity reserves to Georgia during three winter months for ten consequent years of operation; excess electricity or electricity generated during low peak seasons of the year can be freely traded by the Company.

The project envisions construction of second largest hydro power plant in Georgia, with installed capacity of 702 MV in Svaneti Mountains, on the Enguri river gorge, 32 km upstream from the Enguri HPP³. The project proposes a construction of 200.5 dam, with a flooded reservoir area of 528 ha.

Therefore, the project involves resettlement of 184 households of unique SVAN ethnic groups of Khaishi and surrounding villages. Additionally, the Zugdidi-Jvari-Mestia road, the only asphalted access road into the Svaneti valley, will be partially flooded. Consequently a new 15 km road will be constructed along the new reservoir on the right bank of the Enguri Gorge.

Khudoni HPP: Key Milestones	
August 1978	Khudoni HPP proposed
June 1984	Khudoni HPP approved
1984-1989	Construction and Community Resistance, Project Cancelled
December 2009	MoU on Build, Own, Operate (BBO) signed
April 2011	Implementation Agreement signed
2011-2012	Public consultations, community resistance
Year 2013:	New Government steps-in; MoU renegotiated, community resistance persists

1.2. Khudoni Hydropower Key Project Actors

Khudoni HPP sector involves different actors, such as government, people and the investor as stakeholders who are directly “affected” by the project and have direct “interest” and potential to “influence” the project. The stakeholders, who are indirectly “affected” by the project, but have interest into the project are identified as follows: civil society representatives, developers and construction companies, industrial firms and other large-scale energy consumers, intermediary firms and institutional donor organizations and banks active in Georgia who are indirectly “affected” by the project, but have interest into the project.

³ Enguri HPP has an installed capacity of 1320 and is one of the highest concrete arch dams in the world.

For the purposes of the case study, direct actors involved in the project are identified and detailed.

- Government of Georgia:** The Khudoni HPP agreement is signed between the Government of Georgia and the investor, Trans Electrica Georgia Ltd. The Government of Georgia, represented primary by the Ministry of Energy and Resources grants investor a right to develop Khudoni HPP on BBO basis. Furthermore, the Ministry of Economy grants construction permit, while the Ministry of Environmental Protection together with responsible ministries reviews the Environmental Impact Assessment required for the permit issuance. The Government of Georgia has both direct “interest” and can “influence” the project. The summary of the key stakeholders on behalf of Government of Georgia is summarized below:

Government of Georgia	
Ministry of Energy and Natural Resources of Georgia	<ul style="list-style-type: none"> • Department of Energy • Department of Natural Resources • Department of Investment Projects • LEPL Agency of Natural Resources under the Ministry of Energy and Natural Resources of Georgia • LEPL Agency of Protected Areas under the Ministry of Energy and Natural Resources of Georgia
Ministry of Economy and Sustainable Development of Georgia	<ul style="list-style-type: none"> • Department of Sustainable Development • Department for Foreign Trade and International Economic Relations • Department of Urbanization and Construction • Department of Licensing
Ministry of Environment Protection of Georgia	<ul style="list-style-type: none"> • Service of Permits • Service of Biodiversity Protection • Department of Environmental Policy and International Relations • Department of Integrated Environmental Management • LEPL National Environmental Agency (NEA) under the Ministry of Environment Protection of Georgia
Ministry of Refugees and Accommodation of Georgia	<ul style="list-style-type: none"> • Department of Migration, Repatriation and Refugee Issues
Other	<ul style="list-style-type: none"> • Ministry of Culture and Monument Protection of Georgia • National Agency for Cultural Heritage Preservation of Georgia

- Ministry of Agriculture of Georgia
- Ministry of Labor, Health and Social Affairs of Georgia
- Ministry of Regional Development and Infrastructure of Georgia
- Samegrelo-Zemo Svaneti Administration and local municipalities

- **People:** The project is constructed in Samegrelo-Zemo Svaneti region; therefore, the people geographically located in this region are identified as directly “affected”. The detailed breakdown of key stakeholders on behalf of Samegrelo-Zemo Svaneti People are summarized below:

Khudoni HPP: Key Milestones	
People of villages subject to flooding:	<ul style="list-style-type: none"> • Gagma Khaishi, • Khaishi, • Kvemo Khaishi, • Lukhi, • Tsvirmindi, • Zemo Khaishi
People of villages close to maximum water level of the reservoir:	<ul style="list-style-type: none"> • Dakari, • Lakhami • Tobar
People of villages to be isolated:	<ul style="list-style-type: none"> • Kvemo Vedi • Nankbuli • Vedi • Zeda Vedi
Host Population	<ul style="list-style-type: none"> • N/A. <p>At this stage, it is not known where those people will be resettled.</p>

- **Investor:** The project is promoted by Trans Electrica Georgia Ltd, a company created to invest in Georgia’s energy sector and registered in the Virgin Islands. The investor commits to invest US\$ 780 million in the Khudoni HPP project development. The investor is directly affected, has interest and can influence the project. The main commitment to be taken by the investor is to ensure that economic, social and environmental challenges are fully identified and addressed.

Part 2: Khudoni HPP project sustainability

2.1 Economic Sustainability

The principal argument cited by the Government of Georgia to support construction of Khudoni HPP is the need for cheaper and cleaner energy, decrease of dependency on imports and boost of the local income in form of taxes.

Upon construction completion, the project is expected to boost the Country's generation capacity by 16% and deliver cheaper energy, as the cost of energy generated by aforementioned HPP is worth only 1.18 per kWh (source: www.tabula.ge). Furthermore, as Khudoni HPP is part of cascade hydro power system developed during soviet times, it is believed, that the Khudoni HPP will "enable the Enguri HPP and Vardnili HPP to generate additional energy without pumping any further investment into these plants". The additional energy to be generated is estimated in range of 300-476 million KWh.

The other argument cited by proponents is that the project could stimulate the competitive behavior in Georgian electricity wholesale market and shall result in increased cross-border energy trading. The Khudoni HPP developers further argue that the project is expected to benefit local communities in form of increased activity in the region (largely during construction), that will bring local employment and promote development of supportive infrastructure (e.g. HORECA, Retail and etc).

The civil society representatives however agree, that Khudoni HPP is attractive project only as energy trade and regional cooperation and the project brings marginal to no benefits to Georgian population. The arguments supporting this notion are following:

- Georgia currently satisfies 92% of energy demand through renewable sources. While, the demand forecasts for local energy sector are not available, it is argued that 70 HPP development projects in current pipeline (to be completed by 2020) will be more than enough to satisfy the local energy demand. Further, most of the projects with signed Memorandum of Understanding's (MOU) are developed with the goals to capitalize on country's export potential.
- Other feasible alternatives of constructing smaller HPP's or HPP cascades can be designed to meet Georgia's energy security demand. These alternatives will have smaller environmental and social impacts, which can be more easily mitigated.
- As the market is deregulated, the investor is free to sell directly to "large-scale" customers and/or export the energy to nearby countries. Furthermore, the investor is free to charge higher tariffs than the actual cost of energy generation by Khudoni HPP.
- The PPA allows purchasing electricity on pre-determined winter tariffs during first 10 years of investment. This alternative might not be fully feasible, as if the Electricity System Commercial Operator (ESCO) finds the cheaper energy option; it will be still obliged to purchase "expensive" energy from Khudoni. Furthermore, as per put option right, if the ESCO is not able to purchase pre-agreed generated power, the ESCO is

obliged to pay the price difference between the put option and the revenue received through sale of the alternative power to Khudoni HPP developers.

2.2 Social Aspects of Khudoni HPP Development

The Social impact of the project on local community is high, as it involves flooding of the 5,280,000 sq. meter area and resettlement of 184 households (approximately 2000 people-1/7 of current Svan population) of rare Svan ethnic groups from 13 villages.

The majority of “direct” people affected by the project are against resettlement. While the developers are said to allocate USD 5.00 million for resettlement, Local non-governmental organizations report, that there is no “Resettlement Action Plan” prepared and/or discussed with impacted community.

It should be noted, that during Soviet period, when Khudoni HPP construction was first proposed/approved, the part of the population have been resettled once before. However, most of them were unable to cope and returned to their houses.

About Svan People

Svans are an ethnographic Georgian population of mountain region Svaneti. GeoStat registers 14,000 people under Svaneti municipality; however, it is argued that true SVANS are much less (approximately 8,000). During Soviet times, Svans were identified under separate “ethnic nationality” groups, as they speak unique to Svans language and have to date, preserved their traditions, architectural styles from medieval ages and ancient mountain customs.

Based on assessment of UN characteristics of “Indigenous” people, Svans fit five out of 7 characteristics of “Indigenous” people:

1. Self- identification as indigenous peoples at the individual level and accepted by the community as their member.
2. Historical continuity with pre-settler societies
3. Strong link to territories and surrounding natural resources
4. Distinct language, culture and beliefs
5. Form non-dominant groups of society

Therefore, it can be argued that Svans, with distinct identity and minority representation can indeed be classified as “Indigenous” People facing “Resettlement”.

It is noteworthy, that Environmental and Social Impact Assessment in place attempts to bring arguments for “non-qualification” of Svan people of Khaishi villages as “Indigenous” people. Those attempts has been neglected by civil society and intermediaries (including those invited to assess ESIA), but question remains, why project promoters attempted to “non-qualify” SVANS as Indigenous people?

One answer might be that international institutions, such as ILO or UN have adopted special convention on rights of “Indigenous” people and particularly, those concerning land⁴ and relocation. According to ILO Convention 169, the relocation shall take place only with the indigenous groups “free and informed” consent.

ILO Convention 169-Article 16

1. Subject to the following paragraphs of this Article, the peoples concerned shall not be removed from the lands which they occupy.

2. Where the relocation of these peoples is considered necessary as an exceptional measure, such relocation shall take place only with their free and informed consent. Where their consent cannot be obtained, such relocation shall take place only following appropriate procedures established by national laws and regulations, including public inquiries where appropriate, which provide the opportunity for effective representation of the peoples concerned.

3. Whenever possible, these peoples shall have the right to return to their traditional lands, as soon as the grounds for relocation cease to exist.

4. When such return is not possible, as determined by agreement or, in the absence of such agreement, through appropriate procedures, these peoples shall be provided in all possible cases with lands of quality and legal status at least equal to that of the lands previously occupied by them, suitable to provide for their present needs and future development. Where the peoples concerned express a preference for compensation in money or in kind, they shall be so compensated under appropriate guarantees.

5. Persons thus relocated shall be fully compensated for any resulting loss or injury.

ILO Convention 169-Article 17

1. Procedures established by the peoples concerned for the transmission of land rights among members of these peoples shall be respected.

2. The peoples concerned shall be consulted whenever consideration is being given to their capacity to alienate their lands or otherwise transmit their rights outside their own community.

3. Persons not belonging to these peoples shall be prevented from taking advantage of their customs or of lack of understanding of the laws on the part of their members to secure the ownership, possession or use of land belonging to them.

⁴ Articles 13 and 16 of ILO 169 convention concern land and relocation, where the term “lands” is defined as a territory which “covers the total environment of the areas which the peoples concerned occupy or otherwise use”

There is however no law in Georgia protecting right of unique ethnic groups and/or indigenous people. It should be further highlighted, that Georgian legislation allows for “**eminent domain**”, a right to seize a private property of the population without their consent on the premise of public necessity. Law however requires a decree from the ministry of the economy and the consent of a court to grant a “subject” the right to expropriate private property. This subject may be a state or self-government body or a legal person in public or private law.

Furthermore, it is understood that Government of Georgia has granted land entitlement for 1500 ha and real estate located on it (total costs of works carried out on premises and land during Soviet times estimated at US\$ 178 million in EIA) for a symbolic amount of US\$1. Local population states that they have claims to the land; however, these legacies cannot be addressed, as the local population has owned property through inheritance and disposed land plots as distributed (or re-distributed) based on agreements between ancestors. Citizens are now denied the possibility to register – based on lawful possession – ownership rights to land plots that their families have possessed for centuries. This violation of rights and appropriation of land qualifies under land grab. The project also qualifies under water grab, as it results in transfer of control over water resources from impacted vulnerable community under a private use of hydropower project. As such, historically, agricultural and fishing dependent community are displaced from their livelihoods and source of income.

The project social impact also extends beyond resettlement to impacts on cultural heritage. The natural heritage of local communities is to be destroyed, with scope including: two churches, graves, significant historical monuments (including medieval castle of Khaishi) and recently discovered and yet to be studied archeological monument of 1st century. The main Jvari-Mestia road will be also flooded, but renovation anticipated.

2.3 Environmental Aspects of Khudoni HPP Development

The environmental impacts of Khudoni HPP development include deforestation, loss of biodiversity, air and water pollution and erosion. The mitigation measures to ensure biodiversity conservation and minimize air, water and waste pollution have been deemed sufficient by many environmentalists.

The soil erosion however has been identified as major area of concern. The Khudoni reservoir is surrounded by steep slopes which are sensitive to erosion. The risk of sedimentation in reservoir under the current plan proposed in ESIA therefore exists, which can then lead to natural lock of tunnel and flooding of Svaneti and further downstream. The design of the project has been questioned by environmentalists to address the erosion risks. Furthermore, in its report, the Netherlands Commission of the Environmental Assessment has also indicated on re-design needs to address erosion concern.

It is noteworthy, that the useful life of the reservoir can also be affected by sediment load. The ESIA reveals that 95 years will be needed to fill the “dead-storage” of the reservoir with average inflow of sediments, but also mentions that the sediment load highly fluctuates. The assessment of sediment load is based on 1966-1986 sediment measurements, no recent measurements are available.

It should be highlighted, that the project is located in an active seismic area. Active faults are identified in the vicinity of the scheme, and earthquakes with magnitudes from 5 to 7 have been recorded. According to available information, the project is under redesign and will be designed according to the seismic criteria given. It is however understood, that the complete risk assessment for the Khudoni HPP related to potential geo-hazards (i.e. seismic risk, erosion) and stability of natural slopes in the reservoir area or the stability of the dam foundation has not yet been performed. This might be crucial, given that the ESIA comments that the current infrastructure in place from soviet times is in bad state.

Conclusion

According to OECD, the inclusive green growth model provides a “practical and flexible approach for achieving concrete, measurable progress across its economic and environmental pillars, while taking full account of the social consequences of greening the growth dynamic of economies”. Therefore, it can be inferred, that in inclusive green growth model, the social and environmental sustainability should be compatible and complimentary with economic dimension. The analysis of economic, environmental and social aspects of KHUDONI HPP project demonstrates that the proposed foreign investment has been developed with a consideration of economic dimensions only. While this quest for economic momentum is logically acceptable, the challenge faced by the local government lies in how to deal with environmental and social issues of investment project so to both reap the benefits and minimize associated costs. What are the trade off that needs to be made or should they be made at all? Is the green grabbing justifiable under the green growth?

These are the topics that still remain to be solved by the local government for KHUDONI Project and in wider terms, in renewable energy related investment projects. The World Commission of Dams (WCD) recommends a new framework for decision-making in power sector, which is based on “recognition of rights” and “assessment of risks” (particularly rights at risk). It is emphasized by WCD, that the livelihoods of affected groups should be improved as a result of the projects and that dams and hydropower should be seen as one of many alternatives for renewable energy production. This can be a starting point for the discussion between the local government, investors and local people involved. In long-run however, given the transformational nature of green growth model, the government should engage into new ways of collaborative governance so to ensure that effective measures are in place to address emerging global challenges, such as for example, green grabbing.

References:

- CENN EIA, 2012. Environmental and Social Impact Assessment Non-Technical Summary Draft. Published by Caucasus Environment NGO Network, Georgia, 2012. www.cenn.org
- CEE Report, 2013. Off Balance-The Georgian energy sector and contradictions in EU policy and practice. Published by CEE Bankwatch Network, Tbilisi, Georgia; 2013. www.greenalt.org
- GEDF, 2013. Energy Market in Georgia. Published by Georgian Energy Development Fund. Tbilisi; 2013. www.gedf.com.ge
- Geostat.ge FDI in Georgia by Economic Sectors. Published by National Statistics Office of Georgia, Tbilisi; 2013. www.geostat.ge
- The green investment report. The ways and means to unlock private finance for green growth. A report of the green growth action alliance. Published by World Economic Forum, Geneva, Switzerland; 2013. <http://www.weforum.org>
- Green Georgia report. Green Economy in Georgia. Published by Department of Sustainable Development of Ministry of Economy, Tbilisi, Georgia; 2012 <http://www.greengeorgia.ge>
- OECD issue paper. Putting the Green Growth at the heart of development. Published by the Organization for Economic Co-operation and Development (OECD), Paris, France; 2013. <http://www.oecd.org>
- OECD roundtable paper. Harnessing Freedom of Investment for Green Growth. Published by the Organization for Economic Co-operation and Development (OECD), Paris, France; 2011. <http://www.oecd.org>
- Netherlands commission for Environmental Assessment, Advisory review of the draft ESIA – Khudoni hydropower project, Georgia, 2013, www.moe.gov.ge
- World Bank Report. Inclusive Green Growth the Pathway to Sustainable Development. Published by the World Bank, Washington D.C; 2012. www.worldbank.org
- Khudoni Hydropower plant article in www.tabula.ge