

# **Devoll Hydropower Project**

# Environment and Social Management Plan

Resettlement, Social Development and Environmental Management



### **EXECUTIVE SUMMARY**

The Environment and Social Management Plan (ESMP) comprises all social and environmental mitigation measures for the Devoll Hydropower Project. The ESMP outlines DHP's commitments to the environment and Project Affected Households/Persons (PAP and PAHs) in relation to mitigating project impacts and promoting project development opportunities in the Devoll Valley. The Plan summarizes impacts, outlines policy and other overarching issues, and provides a general framework for resettlement, livelihood restoration, regional development and environmental initiatives. The plan gives a general description of the scope and activities of different programs that are going to be monitored and/or implemented and what kind of monitoring indicators will are used to ensure that process are on right track and that targets are met.

The ESMP builds on the DHP's Entitlement Matrix (approved by SC in 2012) and aims to comply with International Finance Corporation (IFC) Performance Standards on Environmental and Social Sustainability. Emphasis has been given to planning because there is a keen interest from project shareholders in ensuring that the ESM programs are implemented in a way that all Project Affected Households and Communities have restored or preferably improved living standards as a result of the project and as a consequence become project beneficiaries.

The main environmental impacts can be seen in relation to changes in the hydrological regime of the Devoll River. Water diversion at the Moglicë dam will radically reduce the flow in Devoll between the dam site and Kokël reservoir. The hydrological regime will also change downstream of the Banja dam. This will be mitigated with minimum flow releases. The creation of reservoirs will also turn previous rivers into lake environments and this will have implications of the water quality. It is also important to note that some localities with endemic flora species will be inundated in the upper section of the project area.

The main social impacts are the loss of agricultural and horticultural land, and the loss of livelihood associated with this. Some access to social services and the loss of residences and other structures are also impacts that will be specifically addressed and compensated on a household or community basis. As part of the transparent and participatory process undertaken to address these issues, it should be highlighted that a key instrument in the development of the detailed plans is the involvement of relevant stakeholders and PAHs.

The Resettlement Program within the DHP framework includes the acquisition of land and physical structures on the land, including businesses; physical relocation; and livelihood support aimed at PAHs, to improve (or at least restore) incomes and living standards. About 70 Households have been identified for full resettlement measures and a maximum of approximately 646 PAHs (identified to date) may be entitled to individual or village level compensation in addition to the Government of Albania (GoA) provided expropriation fees. The compensation will primarily be based on in-kind compensation, in the form of agricultural livelihood packages (where feasible). The primary aim is to minimize the impacts on the affected population, to adequately compensate and to ensure that resettlement is planned and implemented in a culturally and gender sensitive manner. The target is to restore livelihood of at least 70% of the severely impacted PAHs (resettlers and those with significant loss who participate in livelihood restoration programs in the Devoll Valley) to the same level or better as before the start of the project, and 70% of a monitoring sample of those within the impact zone (project construction lands and reservoir areas).

The Social Development Program within the DHP framework includes replacement road Infrastructure, health, education, and social support programs. Road infrastructure will complement resettlement and compensation activities and support service improvements in the Devoll Valley as well as re-establish access infrastructure that is lost due to the project, with the aim of minimizing impact on the mobility of local people.



The Environmental Management Program comprises mitigation measures to minimize project impacts on the natural environment and develop environmental infrastructure services to avoid negative effects to both the project and its key stakeholders. These include programs on hydrology and water quality monitoring, debris removal, afforestation and reservoir clearance. Aquatic biology monitoring will be implemented to identify new successions due to reservoir creation and in the downstream areas. Migratory patterns are determined not to be significantly affected and no mitigation measures are suggested. On issues such as waste management, waste water and sewage treatment, discussions are underway to see the viability of such programs in the long term. A final decision for DHP involvement will be made depending on the result of those discussions

Programs of forestry, sewage and waste water and waste management needs further studies before final solution can be recommended with its associated cost. Studies are underway and disclosure of accepted plans will be done prior to implementation.

The environmental and social mitigation measures will be implemented between 2013 to 2018 – starting up with a focus on Banja impact zone and lower project area. It will be implemented within key interfaces and closely aligned with the main construction schedule.

The following three figures summarize the actions proposed within the ESM Programs in Banja HPP, Kokël HPP<sup>1</sup> and Moglicë HPP.

<sup>&</sup>lt;sup>1</sup> It is important to note that the construction of the Kokel HPP is dependent on certain conditions under the revised Concession Agreement. Mitigation measures will follow accordingly.



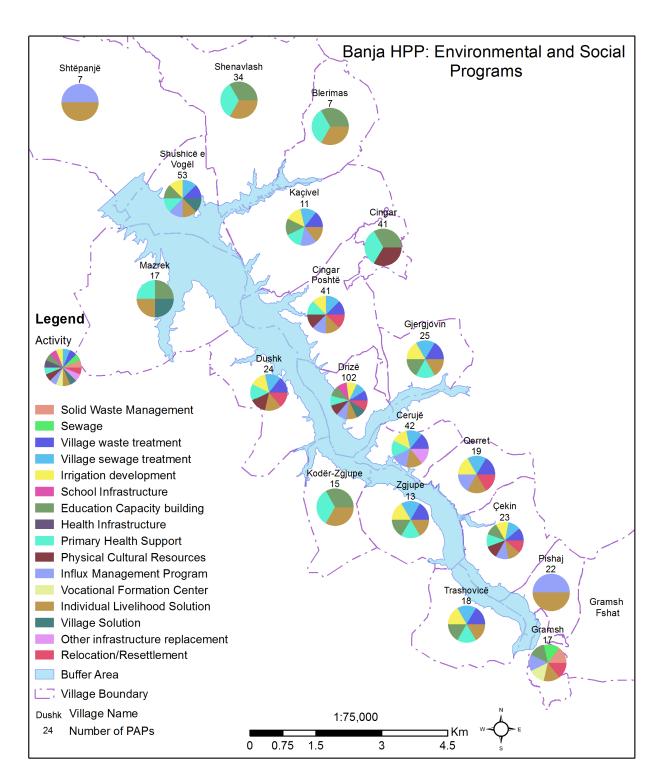


Figure 1. Environmental and Social mitigation measures suggested for implementation for the Banja HPP



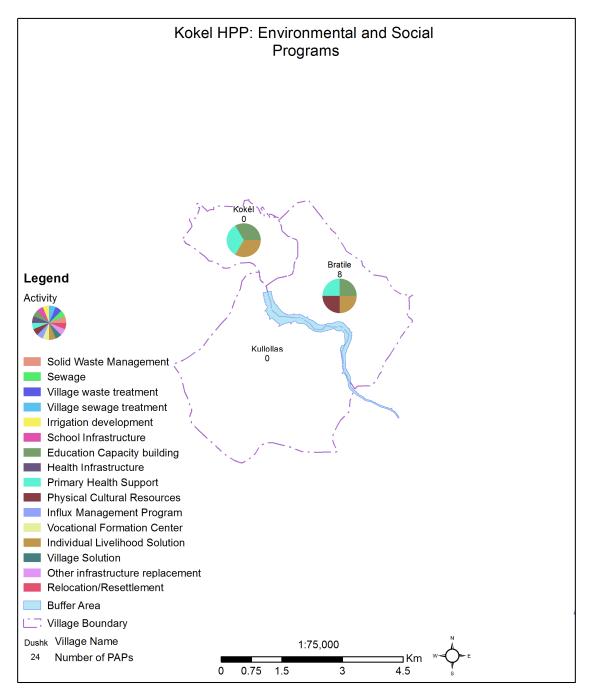


Figure 2. Environmental and Social mitigation measures suggested for implementation for the Kokël HPP



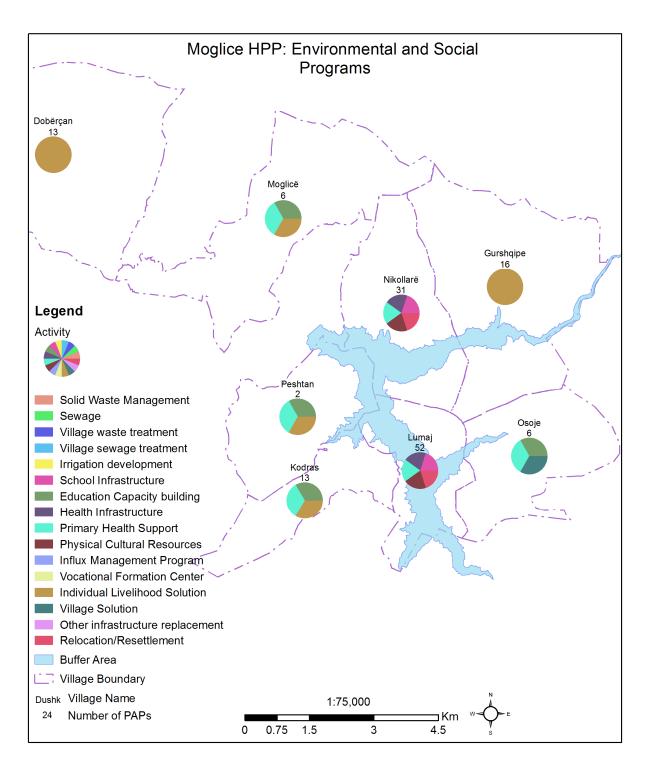


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## ABBREVIATIONS AND ACRONYMS

AIP Annual Implementation Plan
ARF Asset Registration/Inventory Form

CA Concession Agreement
CL Community Liaison
CoM Council of Ministers
DHP Devoll Hydropower

EIA Environmental Impact Assessment

EMMP Environmental Mitigation and Management Plan

EM Entitlement Matrix

ESIA Environmental and Social Impact Assessment

ESM Environment and Social Management

ESMP Environment and Social Management Plan (also referred to as MP)

E&S Environment and Social
EFR Environmental Flow Release
GIS Geographic Information System

GoA Government of Albania

HC Health Center
HPP Hydropower Plant

IHA International Hydropower Association IDP Infrastructure Development Plan

IFC International Finance Corporation (World Bank)

IPRO Immovable Property Registration Office

IWG Institutional Working Group

LA Land Access

LGU Local Government Units LP License and Permits

LSD Livelihood Support and Development

MB DHP Management Board

MP Master Plan (also referred to as ESMP)

METE Ministry of Economy, Trade and Energy, Government of Albania

Non-Governmental Organization NGO PAH Project Affected Household PAH Project Affected Person **PCR** Physical Cultural Resources Resettlement Action Plan **RAP RDP** Regional Development Plan **REP** Regional Education Plan Regional Health Plan RHP

RoW Right of Way

SC DHP Steering Committee
SIA Social Impact Assessment
SMP Social Management Plan
STI Sexually Transmitted Infection

TL Transmission Lines UA Usufruct Agreement

WB World Bank



#### **DEFINITION OF TERMS**

**Project Affected Persons (PAP)** - means any person or persons, or public institution that, on account of changes resulting from the Project, will have its (i) standard of living adversely affected; (ii) right, title or interest in any house, land (including residential, commercial, agricultural, forest, and/or grazing land), water resources or any other moveable or fixed assets acquired, possessed, restricted or otherwise adversely affected, in full or in part, permanently or temporarily; and/or (iii) business, occupation, place of work or residence or habitat adversely affected, with or without displacement.

In the case of a household **(PAH)**, it includes all members residing together and operating as a single economic unit, who are adversely affected by a project or any of its components.

PAP and PAH are on many occasions used interchangeably to refer to the same objective.

**Compensation** - means payment in cash or in kind to replace losses of land, housing, income and other assets caused by the Project. All compensation is based on the principle of replacement cost, which is the method of valuing assets to replace the loss at current market value, plus any transaction costs (i.e. administrative charges, taxes, registration and titling costs).

**Complainant** – An individual or group that has an issue, concern, problem, complaint, or claim (perceived or actual) that he, she, or they want addressed and/or resolved.

**Cut-off date** - This refers to the date prior to which the occupation or use of the project area makes residents/users of the same eligible to be categorized as PAHs (also referred to as PAHs), regardless of tenure status. In this Project, there was no pre-defined cut-off date and instead, it is the day that the information was gathered for the Baseline surveys and the Asset Registration/Inventory Process (detailed measurement survey of PAHs land and/or non-land assets).

**Entitlement** - means a range of measures comprising compensation in cash or in kind, income restoration support, transfer assistance, income substitution and relocation support which are due to affected people, depending on the nature of their losses, to restore their economic and social standing.

**Grievance** - A grievance (complaint) is a concern or complaint raised by an individual or a group within communities affected by DHP's activities, or by other stakeholders on their behalf as appropriate. Concerns and complaints can result from either real or perceived impacts of current or past DHP activities and can be filed in the same manner and handled with the same procedure.

**Grievance Redress Mechanism (Project Level GRM)** - A project-level GRM for affected communities is a process for receiving, conveying, evaluating, and addressing project-related concerns or complaints from affected communities in an appropriate and timely manner. Depending on the magnitude and severity of them issue, investigation may be necessary and, following all efforts at amicable resolution through dialogue, where warranted, external adjudication. Basically it is an institutionalized and organized method consisting of specified roles, rules, and procedures for systematically resolving complaints, grievances, disputes, or conflicts. This also includes complaints against actions of contractors and subcontractors related to DHP activities.

**Land acquisition** - means the process whereby a PAH is compelled by a public agency (in this case, the Government of Albania) to concede all or part of the land it owns or possesses to the ownership and possession of that agency for public purposes in return for compensation equivalent to the replacement costs of affected assets or as otherwise determined by national law and other agreements.



**Primary Health Care** - is a basic level of health care that includes programs directed at the promotion of health, early diagnosis of disease or disability and prevention of disease. This service is provided by doctors and nurses working with the community.

**Rehabilitation** - means assistance provided in cash or in kind to PAHs due to the loss of productive assets, incomes, employment or sources of living, to supplement payment of cash compensation for acquired assets, in order to achieve, at a minimum, full restoration of living standards and quality of life (based on pre-project standards).

**Relocation** - means the physical relocation of an affected household from her/his pre-project place of residence to another location in the same community.

**Resettlement** – has the meaning given to it in the text of this document.

**Secondary Health Care** - is an intermediate level of health care that includes diagnosis and treatment, performed in a hospital having specialized equipment and laboratory facilities.

**Vulnerable** - are distinct groups of people who might suffer disproportionately or face the risk of being marginalized by the effects of resettlement and specifically include: (i) households headed by women, elderly, or disabled, (ii) households falling under the generally accepted indicator for poverty -not food sufficient, and (iii) landless households.



#### 1. INTRODUCTION

The Environment and Social Management Plan (ESMP) comprises all social and environmental mitigation measures for the Devoll Hydropower Project (DHP). The Plan summarizes impacts, outlines policy and other overarching issues, and provides a framework for resettlement and livelihood restoration and regional development initiatives. In addition, there are specific chapters dedicated to the environmental management and monitoring. Relevant features may be updated and publicly disclosed as deemed necessary.

With the aim of being in accordance with International Finance Corporation (IFC) principles and guidelines relating to social and environmental assessment, mitigation and monitoring; the main purpose of this document is to provide a comprehensive overview of all mitigation measures to be undertaken (for known impacts). It also consolidates and analyzes results and surveys already undertaken during the preliminary (pre-construction) phase of the project and the numerous detailed and supplementary studies and analyses by consultants and specialists. At the same time this strategy will be a framework document for detailed Annual Implementation Plans (AIPs) which be drawn up each year and approved by the DHP. The AIPs will be the main implementation document with which to gauge progress and performance as well as incorporate any issues that surface during the project implementation phase.

The dynamic of development is characterized by its continuously changing nature and it is likely to be adapted and moderately changed according to the situation on ground using adaptive management principles within the policy framework and IFC standards. This is primarily because the actual implementation of the outlined plans is closely interrelated and dependent on involvement of many key stakeholders. Stakeholder participation, willingness and dedication to cooperate are key issues that could require revision of some of the programs. These changes will be described in detail through the various Annual Implementation Plans (AIPs). The projected expenses (to date) for the environmental and social mitigation measures is foreseen at over 5% of the total project cost and incorporated in the overall DHP budget framework. This is broken down following the below mentioned sections and includes the actions proposed within the E&S Programs in Banja HPP, Kokël HPP and Moglicë HPP.

This report has been prepared by the Environment and Social Management unit and the main authors are Maria Luisa Duran, Erjon Kalaja, Etleda Kaja, Erjon Zogolli and Pål Høberg. We are indebted to Stephen J. Sparkes and other contributors to this document through their involvement in the program.

### 1.1 Overview of Project Impacts

A full description of the technical features of the three DHP projects located at Banja, Kokël and Moglicë are provided in the technical documents and a summary is found in the ESIA (Norconsult June 2011). The main project social impacts include:

- Loss of agricultural land due to inundation (private and public land)
- Potential resettlement of approximately 70 households due to inundation (residential and summer houses) – final number of households depends on road alignments (access) and detailed consultations.
- Loss of infrastructure (roads, bridges etc.) due to construction and inundation, hampering access
- Potential employment opportunities enhanced by skills development programs
- Improved market opportunities during construction (increased demand) that could continue as a result of improved infrastructure.

The main environmental impacts include:

• Loss of ca. 1,421 ha of forest land (including pasture land) due to inundation



- Significant changes in the hydrological river regime
- Potential water quality issues from reservoir creation
- Potential waste management issue exacerbated due to population influx and camps (managed by DHP HSE)
- Potential erosion, sediment and pollution issues related to construction activities (managed by DHP HSE)
- Challenges in handling of hazardous wastes and materials in an environmentally acceptable manner (managed by DHP HSE)
- Potential impact on endemic flora species
- Disturbance on wildlife during construction period and reservoir creation
- Long-term changes from a riverine environment to a lake environment along the Devoll River impacts on aquatic ecology, water quality and migratory patterns.

#### 1.2 Guiding Principles and Entitlement Matrix

The Guiding Principles and Entitlement Matrix for DHP was approved by the DHP Steering Committee on May 8, 2012 and translated into Albanian shortly after. Prior to this, the details were first discussed with key government officials and a formal notification was made to the public in June 2012. This document is necessary for informing Project Affected Households (PAHs) of their entitlements and options for compensation and mitigation, and initiated the dialogue regarding sustainable livelihood support options which will be provided by DHP.

These Guiding Principles and Entitlement Matrix outline DHP's commitments to Project Affected Households (PAHs) in relation to mitigating project impacts and promoting project development opportunities in the Devoll Valley. The measures listed in the matrix will be carried out by DHP and relevant Government of Albania authorities. The text of the document is attached in Appendix 1.

It should be made clear that these compensatory measures, to be implemented where technically and economically feasible, will be designed and prepared in consultation with both PAHs and other stakeholders with the aim of developing the most appropriate solution for specific individual and community circumstances.

The unwillingness of a PAH to accept the additional DHP provided livelihood assistance as indicated in the entitlement matrix (based on a predefined cutoff date) is understood as the acceptance of GoA standards under the Concession Agreement which requires only expropriation payments in order for DHP to obtain its usufruct agreements with the GoA. It is assumed that there will be a limited number of PAHs who fall under this category but it needs to be understood that it is not within DHPs capacity to impose the social safeguard and environmental standards beyond what is indicated in the CA or Albanian Law.

## 1.3 Key Interfaces and handover

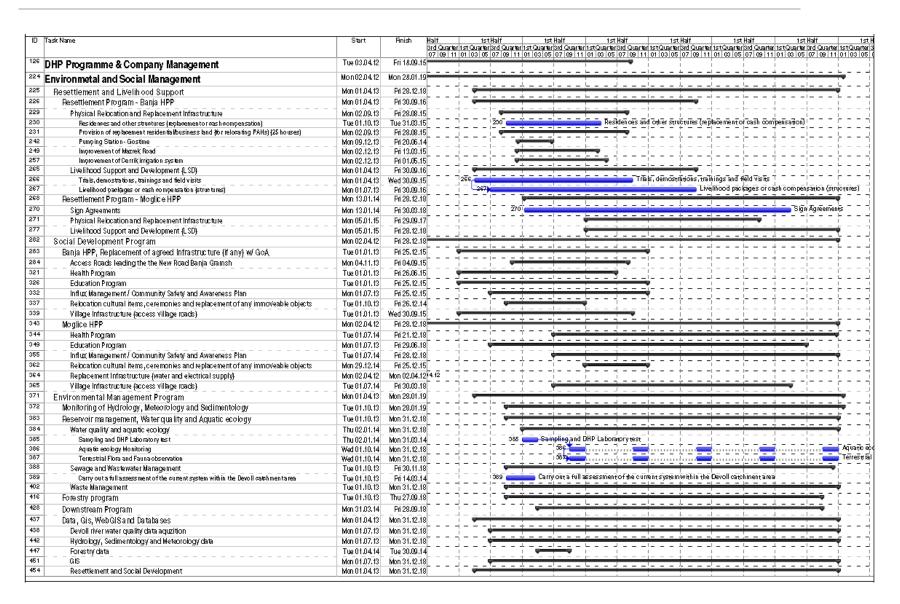
It is essential to see these social and environmental programs and activities in the context of the construction schedule and the project as a whole. The following is a list of key interfaces which need to be considered and taken into account when planning and coordinating events between DHP and GoA:

- Expropriation completed prior to start of construction for project construction lands
- Household Individual Consultations carried out prior to loss of productive land
- · Completion of roads and bridges in inundated area prior to reservoir filling



- Completion of community (water supply, electricity and others) and private infrastructure in impacted/inundated area should be in place and operational prior to reservoir filling / PAH relocation.
- Removal of houses and other structures area prior to reservoir filling.
- Removal of biomass from inundated area prior to reservoir filling.
- Removal of garbage and waste from the inundated area prior to reservoir filling.
- Agreements with GoA regarding water releases from the Banja dam to ensure enough water for downstream (Thana irrigation systems) before operation/generation.







The key principles and milestones indicated above demonstrate the critical nature of resettlement implementation within the Social and Environmental Management program as a whole. It must be done on time and to the required standards agreed to by DHP in order to prevent project delays. While the Concession Agreement (CA) indicates that the Government of Albania (GoA) is solely responsible resettlement, in more practical terms there will be two responsible parties for the resettlement and livelihood support agreements (DHP and GoA). Through previous agreements for activity specific actions on the roles and responsibilities of each of the parties, some guarantees for the performance of these obligations and the nature of such can be outlined, most especially infrastructure project investments that require long term (beyond the project implementation phase) management.

Inundation should not be permitted until all affected families living and utilizing land below the reservoir level have been relocated and the initial phases of their livelihood packages delivered. It is important to highlight that the physical relocation is the responsibility of the GoA and its agencies. Should DHP elect to take over any part of this responsibility, the conditions of such should be defined and agreed to accordingly.

One key issue that needs to be considered with every intervention is the long term operations and maintenance strategy for the DHP programs in each of the HPP areas. In addition to the collaboration in the decision making for specific interventions, handover strategies will be developed in conjunction with these activity proposals, especially those involving community and household infrastructure that will later be taken over by either the GoA or project affected households and groups. Timeframes, milestones, commitments and the handover process need to be agreed with all stakeholders prior to implementation.

#### 1.3.1.1 Resettlement

There is only one section of the CA that deals with the resettlement of the project affected person due to land acquisition. Clause 3.4.6 (d) of the CA states that "the Contracting Authority shall be solely responsible for the resettlement of any persons and relocation of property from any land expropriated in accordance with this Section 3.4.6." Specific focus needs to be put on the identification of potential resettlement sites for PAHs impacted by the Moglice HPP. As such, detailed planning with the GoA to define the actual roles and responsibilities of each of the contracting parties towards addressing the respective obligations on this.

## 1.4 Consultation Approach

The Albanian Council of Ministers have issued regulations on consultations in connection with large development projects indicating detailed descriptions of what is required at the different stages of project preparation and the assessment process. The Policy on Social and Environmental Sustainability set out through the IFC's guidelines requires commitment to community engagement that ensures the "free, prior, and informed consultation of affected communities, leading to broad community support for the project." Information dissemination, consultation and participation with a wide range of stakeholders are crucial processes for planning and implementation of Environmental and Social programs. Broadly defined, stakeholders include any individual or group affected or assumed to be affected by the Devoll Project; and any individual or group that plays a significant role in shaping or affecting the Project, either positively or negatively, including a host community (IFC 2002).

Early consultations and information sharing have helped to manage public expectations concerning the impacts on the community and individuals. Consultations provided an opportunity for the Project and representatives of PAHs to discuss a wide range of issues including but not limited to education, health, water and sanitation, infrastructure, compensation packages and eligibility requirements, resettlement assistance, livelihood assistance - resulting in the DHP Entitlement Matrix - and the detailed planning and timing of such resettlement and social development initiatives. DHP has organized and facilitated a series of participatory workshops and consultations with Project stakeholders throughout the planning



of its various activities and will do so throughout the implementation phase. The purpose of these and future consultations is summarized below:

- Gathering baseline information on the current socio economic situation of both Project Affected Households and communities
- · Gathering information for community assets and infrastructure, which included
  - Access: Bridges, roads and access to different areas
  - o Social Infrastructure: including schools, hospitals etc.
  - Physical Cultural Resources (PCRs): including religious/spiritual locations, memorials, graveyards and cemeteries, archeological and other locations.
  - Common property: including Non Timber Forest Products (NTFP) and Timber Forest Products (TFP) gathering areas, forest areas and other natural resource use.
- Informing the stakeholders about the Project, its impact and measures to mitigate those impacts
- Provide opportunities for PAHs and communities to voice their concerns and propose alternatives
- Identifying relevant regional development issues affecting various stakeholders.
- Discussing compensation packages and eligibility for entitlements
- · Agreeing on community development initiatives
- Individual livelihood support and development packages
- Develop feedback mechanisms for monitoring and evaluation

DHP is committed to establishing a dialogue and feedback loop through consultations with the various stakeholders of the Project. There are different levels of involvement. These include:

- 1. National Level authorities in Tirana main counterparts include the Ministry of Economy, Trade and Energy (METE), Ministry of Agriculture and Food and Consumer Protection.
- 2. Commune Level authorities in Pishaj, Moglicë and Sult
- 3. Impacted households (PAHs) and communities that lose land or require resettlement, and households to participate in livelihood restoration in the Devoll Valley
- 4. Non-Government Organizations (NGOs), international donors and other organizations not directly impacted by the project but could participate in development and benefits in the Devoll Valley.

The Public Hearings on the were held on 12 and 13 September, 2011 at the Cultural Palace "Thoma Prifti" in Gramsh, and on 15 September in Moglice. Presentation of the Draft ESIA report of the Devoll Hydropower Project encompassed the planned three hydropower projects (Banja, Kokël and Moglicë HPPs) in the Devoll River. The hearings in Gramsh focused on the Banja and Kokël Hydropower Projects while the Moglicë hearing focused on the Moglice HPP. The presentations elaborated on the ESIA, potential impacts and recommended mitigation options. The public hearing solicited the opinions of and answered stakeholders' queries.

The opinions and reactions of the stakeholders have been incorporated in detail in the final version of the ESIA report.

#### 1.4.1 Commune Level Consultations

Some of the environmental and social programs and plans that are going to be implemented have shared interest with the municipalities/communes. The communes have responsibility for maintaining and operating infrastructure that will be impacted by the project.



Consultation and involvement is very important in order to ensure sufficient information and participation where needed. The likeliness of making better results out of a development program will increase if there is ownership from local level

The purpose of these and future consultations is summarized below:

- Gathering baseline information to ensure an optimal development solution.
- Announcing the end of the Asset Inventory and Registration Period (cut-off date for Baseline collection)
- Informing Communes about the Project, its impact and proposed measures to mitigate them.
- Provide opportunities for communities to voice their concerns and propose alternatives.
- Identifying relevant social development and environmental programs affecting various stakeholders.
- Discussing development programs and eligibility for entitlements.
- Identifying alternative programs for development at specific sites and the timing of such programs.
- Agreeing on community development initiatives to be implemented.
- · Agreeing about sustainability and ownership structure and operational responsibility.

A number of consultations are planned for the remainder of the project implementation phase and then the consultation format will be determined more by the choices of program development together with PAHs

Future consultations will involve discussions on the following aspects:

- 1. Sewage and waste water treatment for relevant communes
- 2. Education and Health activities
- 3. Resettlement site identification for Moglice HPP impacts
- 4. Community awareness plans such as traffic safety, environment, hygiene etc.
- 5. Collection of waste and landfill management
- 6. Afforestation and reservoir clearance where Commune forest is impacted
- 7. Other replacement of infrastructure that is a GoA responsibility

## 1.4.2 Village and Household Level Dialogue

The most challenging and extensive part of the consultation process are with impacted villages and households in the Devoll Valley. This requires repeated meetings and discussions with the impacted households and village leaders as well as coordination with Commune Leaders responsible for villages in their areas.

Consultations at this level aim to establish a "feedback loop" or dialogue between Project Affected Households (PAHs) and the DHP. It is essential that PAHs design, implement and monitor mitigation measures with the project for interventions to be successful, especially livelihood support and development (LSD) programs. Regular meetings for planning have commenced and will continue into implementation with reporting of results.

- Explanations in relation to potential impacts and mitigation as part of the Social Impact Assessment carried out by consultants in 2010-11
- Formal meetings for disclosure of EIA and SIA studies in September 2011
- Participation in additional surveys on livelihood and land-usage carried out by consultants and DHP project staff in early 2012



- Ongoing informal meetings and discussions with project staff, government and other interested parties regarding a range of issues
- Access to the Public Information Centre since mid-2011

A number of consultations are planned for the remainder of the project implementation phase and then the consultation format will be determined more by the choices of livelihood development and how groups will monitor their own work and report to DHP.

Future consultations in order to finalize livelihood consist of three phases:

- Dissemination of the Entitlement Matrix and presentation of impacts for a detailed discussion of options in relations to rights and procedures, and feedback on concerns raised in previous discussions
- 2. Detailed discussions on mitigation alternatives for village impacts, resettlement and livelihood options with impacted households and village leaders
- 3. Agreements on DHP mitigation inputs, identification of resettlement sites and conditions, and agreement on livelihood options for households

#### 1.4.3 Approach to Vulnerable Groups

Vulnerable groups are defined as people who by virtue of gender, age, physical or mental disability, economic disadvantage, or social status may be more adversely affected by resettlement than others and who may be limited in their ability to claim or take advantage of resettlement assistance and related development benefits. Where individuals or groups are identified as disadvantaged or vulnerable, the project will employ its best efforts to propose and implement specific measures (as needed) to minimize and mitigate adverse economic and social impacts. Some characteristics of vulnerable groups include:

- 1. Lack of adult labor to participate in agriculture, or other income generating activities: i.e. households headed by the elderly, widows or (young) women with young children to care for.
- 2. Disabilities or illnesses amongst household members that make it difficult for them to carry out livelihood activities, either because of the disability or illness or because they are caring for others.
- 3. Households who have been left landless due to the project's impacts and have no other means of subsistence.

Identification of vulnerable PAHs will be made through various methods and criteria should be agreed prior to any actions. These are:

- 1. Selection based on established criteria. Objective and verifiable criteria for receiving support could be established such as the household head over 60 years old, disabled, etc.
- 2. Selection by communities. In some contexts it has been found that communities can do a very good job of identifying the vulnerable, they often have better information about the households than anyone else, and, hopefully, are genuinely interested in the welfare of their community. Community involvement can also build ownership and a sense of responsibility and prevent the undermining of traditional structures.

There is a probability that this small group of households may not meet the livelihood targets on their own, for reasons outside of the control of the project. Special efforts will be made to consult with these households and to tailor livelihood development options to their needs and requirements, as per the Entitlement Matrix. Such efforts are likely to consist mostly of developing a local social safety net through the provision of joint solutions with local organizations, neighbors and/or relatives that can take



on some of the long-term responsibility of caring for such vulnerable households, or designing compensation options that require little or no labor. These informal/personal arrangements have existed traditionally as the main source of mitigating vulnerability in the absence of public support, and it is important that the introduction of special arrangements do not have any negative impacts on the traditional arrangements.

## 1.5 Organizational Framework

Overall organization of the DHP Company and summary of the main responsibilities for each position in the organization related to the topics addressed in this document. This includes distribution of authority and signing rights which are in accordance with DHP's governance policies and documents.

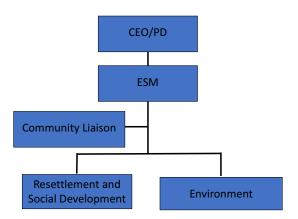


Figure 4: Organizational structure showing the Environment and Social Management Team

The different units have the following responsibility:

- Environmental and Social Management (ESM) conducts the strategic planning of the overall ESM programs and plans. ESM is responsible for all aspects outlined in the ESMP, but throughout the project cycle some tasks which involve competencies where DHP has other established units (such as infrastructure design, tendering, construction and supervision) shall be managed by the relevant DHP department. It identifies activities, outlines clear targets within its programs and monitors milestones and achievement of goals following program schedules in relation to construction activities and ensures that interfaces are aligned.
- <u>Community Liaison (CL)</u> will communicate with project affected households, villages, communities
  and government (last mentioned when needed and agreed with head office). Community Liaison
  will be a key player in all ESMs consultations and the focal point on the Grievance Redress
  Mechanism. CL will also improve community/village knowledge about DHP/ESM and ongoing
  processes/activities.
- Resettlement will have the planning and operative responsibility in developing, implementing and
  managing the Livelihood Support and Development Programs, compensation solutions,
  consultations and negotiations as well as the physical resettlement of households and affected
  private business locations. Resettlement will also be in charge of all monitoring and all activities
  related to livelihood restoration.



- <u>Social Development</u> will have the operative responsibility for developing, managing, implementing
  (as required) and monitoring ESM's infrastructure development plan (in cooperation with GoA),
  regional health program, regional education, and social management (including community safety
  programs).
- <u>Environmental Management (EM)</u> will have the operational responsibility of developing, implementing, managing and monitoring the plans and programs defined under Environmental Management Program.

The plans and programs are:

- Waste Management Plan
- o Sewage and wastewater Management Plan
- Reservoir Clearance
- o Afforestation Plan
- Hydrology, sedimentology, meteorology and water quality monitoring program
- o WEB-GIS operation
- o Irrigation Development Plan (downstream)
- o Downstream Program

The responsibility also involves monitoring the activities to show that the mitigation measures put in place have the desirable outcomes.

### 1.6 Sustainability Indicators and Monitoring Outcomes

In accordance with IFC standards for sustainability, it is necessary for DHP to be able to show that the various mitigation measures put in place have a desirable outcome in terms of restoring and preferably improving the living conditions and standards of PAHs. A number of desired outcomes have been compiled based on the information gathered from surveys, consultations and planned interventions in the left column on the table below. In the right column, how performance will be measured is listed. Some of these indicators related to measurable benefits to PAHs, such as income targets while others relate to commitments to carry out programs, such as providing training and equipment to schools.

Once the indicators have been identified, baseline data of the present situation needs to be confirmed as a starting point for long-term monitoring and as a way of measuring improvements or restorations over time.

DHP Desired Outcomes	Outcome Indicators Used to Measure Performance	Baseline	Target
PAHs have improved	Household income information from agricultural and business activities in the Devoll Valley only	Average Agricultural Income 226,003 ALL	At least a 10% improvement on the average baseline value plus annual inflation — or relative proportion to increase in total production
standard of living	Other sources of income which could affect the level of involvement on activities in the Devoll Valley but allow for the maintenance or improvement of the standard of living.	Average family income from other activities and natural resources (besides	5% increase



DHP Desired Outcomes	Outcome Indicators Used to Measure Performance	Baseline	Target
		remittances) is 260,315 ALL	
PAHs have improved access to markets and services	Number of village with all- weather road access to villages or improved road conditions	27 villages	30% with improved road access
	Access to health care (operational health facilities or regular visits by health professionals)	14 Health Centers / 1 Hospital	Improved access to village HC or Gramsh Hospital for 80% of project villages.
PAHs have improved health conditions	Support for participation in training programs for health center staff and attendance of these programs	14 Health Centers	20 attendees
	Upgrading and improving health facilities with required equipment	14 Health Centers	Provision of basic equipment to each of the health centers.
PAHs have better access to water	Number of Households with domestic water supply directly to the house.	N/A	100% of Resettlement / Relocation houses built.
PAHs have improved sanitation	Number of HHs with functioning indoor latrines	N/A	100% of Resettlement / Relocation houses built.
	Number of children attending secondary schools in the Project Area.	N/A	monitoring trends in attendance/enrolment levels
PAHs have	Number of training programs for teachers and attendance of these programs	N/A	20 attendees
improved education	Items of equipment provided to primary and secondary schools	N/A	100% of school in the Project area received equipment package as decided by DHP
	Number of project affected pupils/students benefiting from education support programs (including training)	N/A	30 (from 2013-2019)



DHP Desired Outcomes	Outcome Indicators Used to Measure Performance	Baseline	Target			
Employment during project implementation period	Number of local people hired by DHP, contactors and other parties during construction	0	DHP is not responsible for direct employment from the construction of the various HPPs but this employment generated will be measured to assist in the assessment of the overall project contribution to the local economy.			
	<ul> <li>Number of new hectares under production by PAHs (irrigated and non-irrigated areas)</li> </ul>	0	30 hectares			
Livelihood improvements			24 greenhouses or other production intensification farming structures provided through the LSD			
and intensification for PAHs	Number of small business activities supported (in kind)	N/A	20 small businesses started/assisted over a 5 year period.			
	Amount of income/consumption derived from DHP supported (agricultural) livelihood initiatives.	Average Agricultural Income 226,003ALL	10% increase			
	Number of households using communal land fill	0	10 villages			
Improved environmental conditions in the	Number of households connected with sewage network	< 50% of total HHs	70% of total HHs			
Devoll Valley	<ul> <li>Number and types of trees planted within the required re- forestation area (1,421 ha).</li> </ul>	N/A	To be defined as per GoA requirements			

Table 1: Outcomes, performance indicators and targets

Income is a more complex aspect to measure as there are various factors to consider, as well as the willingness of PAHs to declare their realities. For the purpose of DHP monitoring, the target is set at 10% above existing income levels as a whole plus allowance for the annual inflation rate. Since the loss of land will probably lead to a permanent loss of agricultural production and income, total income should be monitored. This should consist of incomes from crop production, livestock, small businesses, salaries and remittances. It is likely that these different components will change during construction and during operation due to employment and business opportunities and improved market access.

Other infrastructure targets include improved access to health, roads, and new land under production, irrigation, water supply and inside toilets. Improved school attendance for secondary schools would also indicate an improved education situation for the Valley. Other targets provide training and new activities for PAHs and have no baseline reference but can only be measured against a target.



## 1.6.1 Monitoring Program for DHP

The livelihood and land-use survey that was undertaken between 2011 and 2012 provided a detailed baseline for monitoring (in particular for Banja). It is recommended that monitoring be undertaken every second year for four consecutive data collection activities, that is in 2014, 2016, 2018 and 2020. This will involve using the same questionnaire, or one slightly modified to capture all the required data based on the situation prevalent during the data collection period.

The aims of the socio economic monitoring and evaluation program include:

 In the short-to-medium term, the analysis would focus on the main income sources and livelihoods of families resettled under the Project and changes in PAH income/consumption/production profiles. At the same time, the aim is to identify emerging issues in the PAH communities which could impact their socio-economic condition in the longer term.

It is expected that the monitoring effort would identify changes in social and economic conditions of PAHs based on indicators such as income level, sources of income, food sufficiency, basic health and education conditions, and the status of vulnerable individuals; this will also assist in establishing trends. This analysis would be used to provide feedback on and support the design and/or strengthening of livelihood and regional development interventions to help improve the income prospects of project affected and resettled households.

2. In the long term, the analysis would focus on examining/comparing the set of above identified indicators and desired outcomes, to determine whether the Project has in fact met its pre-determined targets.

At the moment, data collection is envisioned to be outsourced to a professional survey organization, which would be responsible for data collection and data entry with the DHP Resettlement Team being responsible for quality control and monitoring of the survey activities. This would give a form of legitimacy to the data collected.

As for sample size, it is recommended that between 30% of households (PAHs) impacted by the reservoir and project construction lands (mitigated through resettlement and/or livelihood support and development) are taken into account. Selection will be based on those with the highest impacts per village ensuring that those that are severely impacted are included. Using the information available to date, this ascends to approximately 210 households but this number may vary depending on the final monitoring program to be carried out. In principle, departees (PAHs who choose to leave the project area) will not be monitored.

An additional number of individuals may be included into the survey as a control sample to verify trends as well as other Regional Development or Environmental indicators. It is recommended that this control sample are (1) from the Devoll Valley (2) are not directly impacted by the Project. The number per village would be directly proportional to the number of PAHs in that village. This is important since it will be necessary to identify developments and changes that are beyond the project's scope. For example, if remittances drop by 50% due to a lack of work in Italy or Greece, then income targets may need to be adjusted to take this into account or livelihood programs vamped up to help villagers adjust to this new economic challenge.



## 1.7 Project stakeholders and project beneficiaries

The different programs are dependent on cooperation and have various interactions with a whole range of stakeholders. These relationships are listed below.

	Programs											
	Land Access (Private lands)	Infrastructure Development	Regional Health	Regional Education	Social Management Program	Physical Cultural Resources	_ ≥	Sewage / Wastewater	Irrigation Development	Waste Management	Biomass Clearance and Debris Removal	Reforestation
Albanian Committee on Large Dams							X					
CEZ SHPËRNDARJE		X										
DHP Contractors					Х							
DHP Internal (O&M)							X					
Directorate of Cultural Heritage						Х						
Electricity Distribution System Operator (OSSH)		X										
Forestry Department											X	Х
General Directorate of Water Supply & Sewage		X										
General Roads Directorate		X										
Gramsh Civil Emergency Committee			Х									
Gramsh Municipality					Х							
Hospital Service Directorate			Х									
Immovable Property Registration Office (IPRO)	Х											
Institute of Cultural Monuments						Х						
Ministry of Agriculture							Х		Х			
Ministry of Economy,	v	v										
Trade and Energy (METE)	Х	Х										
Ministry of Education and Science				Х			Х					
Ministry of Environment	Х						Х	Х		Х	Х	Х
Ministry of Health			Х		Х			Х		Х		
Ministry of Interior	Х						Х					
Ministry of Justice	Х											
Ministry of Public Works and Transportation		Х						Х		Х	Х	
Ministry of Tourism		Х				Х						
Ministry of Economy							Х					
Non affected communities								Х			Х	Х
Non Governmental Organization					х		Х	Х				
Other Albanian / International institutions							Х	х		х		
Police					Х							
Polytechnic University, Institute of Geo-Sciences, Energy, Water & Environment							х					
Project Affected Person/Household	Х	х	Х	х	Х	Х	Х	х	х	х	Х	Х
Public Health Directorate	^		X			^		^	^	^		^
Red Cross			X									
Regional Cadastral offices	Х		^									
Regional Directorate of Water Supply & Sewerage	^	Х										
Regional Directorate of Water Supply & Sewerage Regional Directory of Agriculture								Х				
Regional Drainage Board								X				
· ·				Х	Х			^				
Regional Education Directorate				^	X							
Regional Employment Offices					Α		х					
Regional Environment Agency							X					
Regional forestry offices		V										
Regional Roads Directorate		X										
Rural Roads Enterprise												

Table 2: Interfaces of project stakeholders and beneficiaries to the respective ESM programs



## 2. LEGAL FRAMEWORK

#### 2.1 Introduction

DHP has endeavored to incorporate not only the Albanian standards in the implementation of its activities but those of the most relevant international standards as well. This section describes in detail the applicable GoA regulations which cover DHP activities in the construction and operation so the 3 HPPs.

The change from the former communist regime brought among others, changes in the procedural and documentary requirements on land ownership as well as other regulations implemented and required to construct a Hydropower in Albania. This said, it is required to secure the Land Access rights based on the following laws which are in force to date:

- Private properties Law no. 8651, dated 22.12.1999 'On expropriation and temporary use of private property for public interest', as amended.
- State Properties Law on immovable State property (No. 8743, of 2001) (as amended)
- The Law Concerning the Land (No. 7501date 17.07.1991 as amended with Law no.7715, date 2.6.1993, Law no.7855, date 29.7.1994; Law no.8752, date 26.3.2001 "for the operation and establishment of structures related to the administration and protection of the land", Law no.9244, date 17.6.2004 regulated the distribution of state-owned land to employees of state-owned farms and members of agricultural state-owned cooperatives.
- The Law on Privatization of State-Owned Housing (No. 7652) granted urban families ownership of the apartments and individual houses they occupied.
- The 1993 Law on Restitution and Compensation of Properties to Former Owners (No. 7698), (revised in 2004, as No. 9235), allows pre-1945 landowners to claim non-agricultural land and agricultural land up to 100 hectares.

#### 2.2 Land Tenure and ownership

There are a number of laws and decrees related to land tenure, property rights, and expropriation in Albania. These are identified in the table below and explained in more detail in the subsequent sections.

Legislation	Description
Law no. 8651, dated 22.12.1999 "On expropriation and temporary use of private property for public interest", as amended	This law governs the private properties land rights for public interest
Law on the management of immovable State property (No. 8743, of 2001), as amended	This law governs the administration and management of the state properties in Albania
Law Concerning Land (No. 7501 dated 17.07.1991), as amended	This law governs the agriculture land issue in Albania;
Law on Privatization of State-Owned Housing (No. 7652), as amended.	This law governs the Houses/structure issues
Law on Restitution and Compensation of Properties to Former Owners (No. 7698), (revised in 2004, as No. 9235), as amended.	This law governs the restitution of properties back to the former owners prior to communist system, being it agriculture, forest, pasture, construction land or any other property.
Law no. 9385 dated 04.05.2005 "On Forest and forestry services", as amended	This law governs the removal of the forestall areas form their inventory and to be used for the project



Legislation	Description
Law no. 9693 dated 19.03.2007 "for the Pasture funds", as amended	This law governs the removal of the pasture areas form their inventory and to be used for the project
Law no. 9244 dated 17.06.2004 "on the protection of agriculture land", as amended	This law governs the rules and regulation of the agriculture land.
Albanian Civil Code	This code regulates property title issues for the owners of the structure and the land

## 2.3 Private properties - Albanian Expropriation Law

The legislation governing the expropriation process for the private properties are described below:

- Law no. 8651, dated 22.12.1999 'On expropriation and temporary use of private property for public interest', as amended and;
- Decision of Council of Ministers (DCM) no. 126, dated 23.3.2000 'On the composition and procedures of special committees for expropriation', and;
- DCM no. 127, dated 23.3.2000 'On the content and procedures for submission of request for expropriation and temporary use of private property for public interest', and;
- DCM no. 138, dated 23.3.2000 'On the technical criteria for the evaluation and calculation for compensation of expropriated properties, devaluated properties and third party rights(as amended)', and;
- Instruction no. 1, dated 5.10.2000 'Technical criteria for the evaluation of fruit plants expropriated for public interest in cases of lacuna of disclosed sale prices'.

Under Law no. 8561, dated 22.12.1999 on expropriation and temporary use of private property for public interest provides for the State's right to expropriate or take private property for temporary use for purposes of a "public interest" that cannot be achieved or protected in another manner. The State must compensate the value of land expropriated and any reduction in the value of property caused to properties bordering with the expropriated property<sup>2</sup>.

Under the Expropriation Law, the expropriation value (compensation) is calculated by a special committee based on the assessment of the properties subject to expropriation (by considering their initial value, depreciation, destination, location, indexes of the market price changes and of the currency). A Decision of the Council of Ministers no. 138 dated 23.03.2000 explains the evaluation methodology of the land subject to expropriation procedures is defined (in ALL/m2) by decisions of the Council of Ministers approving the price reference according to Law no. 9235, dated 29.07.2004, on restitution and compensation of properties.

In cases where no price is fixed for certain areas, under Decision no. 138, the value of land shall be estimated based on the average value of the sale price of land in the relevant area (within the last 3 months) as indicated in the Register of the IPRO. A special declaration of this Office signed by the local director of IPRO must be issued regarding recent sale contracts filed and the prices applied.

With regard to areas that have not kept a trading/purchase index, the estimation of the value shall be performed on the basis of a direct comparison to the average sale prices of land in other areas.

<sup>&</sup>lt;sup>2</sup> The Expropriation Law is supported by the following four decisions concerning the operation of expropriation: Decision 126, dated 23.03.2000, On the Composition and Work Procedures of the Special Committee for Expropriations; Decision 127, dated 23.03.2000, On the Content and Procedures for Applications and Notification of Expropriation; Decision 138, dated 23.03.2000, On Technical Criteria of Valuation and Computation for Expropriation; Decision 147, dated 23.03.2000, On the Rules and Manner of Functioning of the Special Committee on Expropriation.



The estimation of the value is based on the type of land to be expropriated (agricultural land, woodland, meadow etc.); the characteristics for the estimation are different (i.e. in case of the agricultural land: the land category; the range from the urban zone; situation under or above the water level etc.).

According to the Expropriation Law (Article 27 and 28), expropriation for the temporary use of land may occur for as long for no longer than two years from the date the land is taken for temporary use (Article 33 of the Expropriations Law). The owner of properties taken for temporary use has the right to request their return in their prior condition or for indemnification for any damages to the property.

The State must also compensate for prejudice to neighboring property. Immovable property can only be taken for: (i) Fulfillment of obligations of the State arising from treaties and international multilateral conventions; (ii) Performance of programs, projects and investments in Albanian territories and abroad, foreseen in international agreements executed by Albania; (iii) Developing of transport, energy, telecommunications, waterworks and sewage infrastructure projects; (iv) Execution of projects and investments aimed at protecting the environment, health, culture and public education; (v) Carrying out programs and investments focused on national defense. (vi) Protection of cultural heritage assets, including buildings and historic places, monuments, artifacts, etc., that are considered worthy of preservation for the future. These include objects significant to the archaeology, architecture, science or technology of a specific culture.

Beneficiaries of expropriation may be public or private. If private, they only may benefit for purposes of developing transport, energy, telecommunications, waterworks and sewage infrastructure projects or projects and investments aimed at protecting the environment, health, culture and public education. The Civil Code establishes the obligation to compensate for property damage which consists of the value of the damage caused and the expected profit (Art. 640).

#### 2.4 State (Public) land

#### 2.4.1 Current situation

More than 80% of land required for the implementation of the DHP project is categorized as public land. This land is sub divided into the following categories:

- 1. Forest (managed by Ministry of Environment, or local authorities)
- 2. Pasture (managed by Ministry of Environment, or local authorities)
- 3. Roads and other infrastructure (managed by Ministry of Transportation, or local authorities)
- 4. Water management schemes (managed by METE, or local authorities)
- 5. Agricultural (managed by Ministry of Agriculture)
- 6. Archeological sites (managed by Ministry of Tourism)
- 7. Other sites (various GoA managers)

For all land managed by central or local authorities, DHP is undergoing the process of identification, through a complete inventory of affected sites and defined within a process managed by the Institutional Working Group (IWG) with the end result of the following process to be carried forward:

- 1. Removal from respective inventories of the required land following specific CA stipulations
- 2. Approval from the GoA through a Council of Ministers (CoM) decision for each of the land areas that will be managed by METE
- 3. Approval by council of Ministers and further Parliament on the forestall areas;
- 4. Registering all land under the name of METE
- 5. Signing of usufruct agreements for each of the above mentioned areas with METE



- 6. Registration of usufruct agreements at IPRO office with the note that this land is blocked and reserved for DHP for 35 years under usufruct agreement;
- 7. Providing information and access to land needed for the resettlement, regional development and environmental processes as required) and assisting in the processing of necessary licenses and permits and during the construction of various structures.

## 2.4.2 Resettlement Legal Framework

Albanian legislation does not provide for explicit definitions and further elaborations with regards to resettlement assistance for legitimate owners displaced by a project.

The term resettlement is only mentioned in the Concession Agreement clause 3.4.6 (d) which specifies that: the Contracting Authority shall be solely responsible for the resettlement of any persons and relocation of property from any land expropriated in accordance with this Section 3.4.6.

Expropriation process in Albania is governed by our Civil Code and the Expropriations Law (also including the applicable secondary legislation)<sup>3</sup>.

According to the Expropriation Law (Article 27 and 28), the expropriation for the temporary use of the land shall be applied in case the performance of the works is to be considered as in the public interest. The temporary use of the land shall comply with the provision of the Expropriations Law and shall be done against compensation. The temporary use of the land shall occur for as long as the legal cause of the use exists but in any event not longer than 2 (two) years from the date the land is taken for temporary use (Article 33 of the Expropriations Law). The delivery of the land and the restitution of property are done by means of a special official document in which the following is reflected: the legal basis, the characteristics of the object and its actual conditions, and which is signed by the owner. In the absence of the owner, these actions are carried out in the presence of two witnesses. When the properties taken for temporary use are to be returned, the owner has the right to request their return in their prior condition or for indemnification for any damages to the property. If the owner refuses to accept the return of the private property taken for temporary use, it is kept in safekeeping for the account of the owner, and the expenses are charged to him.

Furthermore, the State must compensate any prejudice caused to nearby property. On the other hand, no interest could be considered as public, if there are alternative ways to achieve such purpose.

Immovable property could only be taken for the following purposes: (i) Fulfillment of obligations of the State arising from treaties and international multilateral conventions; (ii) Performance of programs, projects and investments in Albanian territories and abroad, foreseen in international agreements executed by Albania; (iii) Developing of transport, energy, telecommunications, waterworks and sewage infrastructure projects; (iv) Execution of projects and investments aimed at protecting the environment, health, culture and public education; (v) Carrying out programs and investments focused on national defense. (vi) Protection of cultural heritage assets, including buildings and historic places, monuments, artifacts, etc., that are considered worthy of preservation for the future. These include objects significant to the archaeology, architecture, science or technology of a specific culture. Beneficiaries of expropriation may be public or private. If private, only for purposes of developing

<sup>3 (</sup>i)Law no. 8651, dated 22.12.1999 'On expropriation and temporary use of private property for public interest', as amended and; (ii) Decision of Council of Ministers (DCM) no. 126, dated 23.3.2000 'On the composition and procedures of special committees for expropriation', and; (iii) DCM no. 127, dated 23.3.2000 'On the content and procedures for submission of request for expropriation and temporary use of private property for public interest', and; (iv) DCM no. 138, dated 23.3.2000 'On the technical criteria for the evaluation and calculation for compensation of expropriated properties, devaluated properties and third party rights(as amended)', and; (v) Albanian Civil Code and; (vi) Law no. 7843, dated 13.7.1994 'On Registration of Immovable properties', as amended, and; (vii) DCM no, 147, dated 31.3.2000 'Rules and the functioning of special commissions for expropriation', and; (viii) Instruction no. 1, dated 5.10.2000 'Technical criteria for the evaluation of fruit plants expropriated for public interest in cases of lacuna of disclosed sale prices'.



transport, energy, telecommunications, waterworks and sewage infrastructure projects or projects and investments aimed at protecting the environment, health, culture and public education.

### 2.4.3 Land ownership and use

The legal basis for this is a complex framework that is difficult to implement and still has grey areas. The Concession Agreement between METE and DHP is the legal basis attributing responsibility for resettlement and provision of property to the Government.

The 1993 Law on Restitution and Compensation of Properties to Former Owners (No. 7698), (revised in 2004, as No. 9235), allows pre-1945 landowners to claim non-agricultural land and agricultural land up to 100 hectares. However, most of this land was already distributed to collective farm workers under the 1991 and 1992 laws. Compensation in lieu of restitution can take one or more of the following forms: state land of equal value; land in tourism development zone; shares in companies with state capital; the value of objects, such as farming equipment, subject to privatization; and money exempt from fees or taxes. The revised law (2004) established a State Committee on Restitution and Compensation of Property.

Albania's 1994 Civil Code, as amended is the principle legislation governing land ownership, leaseholds, and rights of possession and use. The system of property ownership depends upon whether it is private, state or public land, with each category of land having its own regime for ownership, possession and other rights. Servitudes are mentioned in the Civil Code defining the temporary and permanent access rights of both parties in a servitude agreement including the conditions for cessation.

The 1995 Law on Pasture and Grazing Land (No.7917), as amended provides for devolution over rights to manage and use state-owned pastureland to local governments. Communes can establish ten-year lease contracts with pasture users.

The Law on the transfer of ownership of agricultural lands without compensation (No. 8053, of 1995) (as amended) regulates the transfer of the agricultural land to the agricultural families, or individuals that are using the land.

The Albanian Constitution of 1998 guarantees the right to private property and provides that property rights cannot be infringed without due process. The 1991 Law on Constitutional Principles (No. 7491) committed the state to developing economic relations based on market principles and private land ownership. The constitution notes that expropriations or limitations in the exercise of a property right may only be made only for public interests and are permitted only against fair compensation, about which complaint may be filed in court only referring to the extent of the compensation.

The Law on undistributed agricultural land (No. 8312, of 1998) regulates the regime of undistributed agricultural land, or land refused by the employees of state-owned farms and members of agricultural state-owned cooperatives.

The Law on the transfer of ownership title of agricultural land, forest, pasture and meadows, (No. 8337, of 1998) regulates the transfer of the ownership title of agricultural land, forests, pastures and meadows, to Albanian individuals or legal entities. The Law on leasing State-owned agriculture land, woodland, meadowland and pasture (No. 8318, of 1998), (as amended) regulates the leasing of state-owned property to individuals or legal entities.

The Law on immovable State property (No. 8743, of 2001) (as amended) regulates the regime and administration of state-owned immovable properties. The Law on the transfer of publicly owned properties to local government units (No. 8744, of 2001) (as amended) regulates the transfer of ownership of state owned immovable properties from the central government to the local government units.



The 2004 Law on Legalization & Urban Planning of Informal Zones (No. 9304) was designed to address the widespread problem of illegal occupation of urban land through formalization of rights. The Law created a system of self-declaration applications, by which occupiers could apply to pay the market price to acquire ownership of their land from the state. The Law provides the fixed prices for sale of property informally constructed on in (Art. 20) and outside (Art.19) of the yellow line.

The Law on use and exploitation of uncultivated agricultural land (No. 10263, of 2010) provides the definition of rules and procedures for the use and exploitation of uncultivated farm land in order to ensure the economic function of the property in the context of rural and sustainable agricultural development.

Easements, usufruct and lease/sublease may be realized based on contracts entered into between the parties. All contracts except lease/sublease contracts entered into for a period shorter than nine years are subject to registration with the local Real Estate Registration Office (IPRO).

The Intellectual Property Registration Office (IPRO) issues an Ownership Certificate accompanied by the Property Map and Property Records reflecting all information on the property the owners of properties that are included in the new registration system, while for the properties that are not yet included in this system, the IPRO issues a document that certifies the ownership title, called "Ownership Attestation" accompanied by the property map.

## 2.4.4 Environment and zoning

The main laws governing zoning, environment and related matters concerning the use and occupation of land, include the Law, dated 17 December 2009 on urban planning (as amended) providing for the rules for the construction and architecture of buildings in the territory of the Republic of Albania. Law no. 10119, dated 23.04.2009 on territorial planning (as amended effective from 2011) substituted the Urban Planning law (No. 8405. of 1998). The new law provides the basic principles, responsibilities, rules and procedures of territorial planning. Special Development Control Instruments (Section II Art. 62-69 of the Territorial Planning Law, 2011) when they are developed will provide the conditions for reserving land in the public interest through a development freeze for up to 18 months without compensation being necessary, but that it will be prepared for in the final six months of the period.

Law no. 8402, dated 10.09.1998 on supervision and discipline of construction works (as amended) provides for the implementation and supervision of construction works in compliance with zoning and environmental regulations. Law no. 9780, dated 16.07.2007 on the inspection of construction (as amended) aims to ensure the compliance with the norms and standards of construction, urban space and water resources legislation.

Law 5093 (1996) on water resources (as amended up to 2001) defines the safety area around reservoirs (Art. 55 and Art. 2) as between 5 and 20 meters from the 25 year flood line depending on safety requirements for people and property, and stresses that this area may only be put to public use. The area may be extended up to 200 m if necessary and must be established by the water authorities.

Law no. 8934, dated 05.09.2002 on environmental protection (as amended) regulates the relationship with the environment and sets the rules for the preservation of a clean environment.

Law no. 8990, dated 23.01.2003 on environmental impact assessment (as amended) defines the rules and procedures for environmental impact assessment. The enforcement of environmental regulations is controlled by the regional environmental agencies. The Minister of Environment is the responsible authority for approving an environmental permit in the cases where the activity for which a permit is required, is carried out at national level.

Law no. 8897, dated 16.05.2002 on the protection of air from pollution (as amended) provides to set the measures for the protection and improvement of the air quality.



Law no. 9010, dated 13.2.2003 on environmental management of solid waste (as amended) aims to protect the environment and the health through the management of the solid waste.

Law no. 8906, dated 06.06.2001 on protected areas (as amended) regulates the protection and management of protected areas and their natural and biological resources.

Law no. 9587, dated 20.7.2006 on the protection of the biodiversity aims to promote the preservation and protection of biodiversity.

## 2.4.5 Physical Cultural Resources (PCR)

Article 48 of the Law on Cultural Heritage (Law No. 9048 of April 2003) notes that when construction works have begun and chance finds made of objects of archaeological or ethnological value the work must be immediately suspended and the works leaders and investors must inform the local authorities and the Institute of Cultural Monuments within three days. Following investigation by the Institute authorization may be given to continue or not, as necessary. All costs are borne by the investor.

Displacement of cultural monuments to better preserve their values into appropriately safe areas may be done with the authorization of the Archaeological Institute, the Institute of Cultural Monuments, the Institute of Folk Culture or the General Directorate of the State Archives (Art. 10) after proposing and recording the displacement at the National Centre for the Inventory of Cultural Property. The State may expropriate cultural property from its legal owners when it is in the interest of its protection (Art. 12).

Article 118, of the Penal Code of Albania, notes that grave / graveyards violation and any other kind of action that lowers the respect towards a dead person, is punished with fine or imprisonment up to 5 years. Article 10, point 3 (dh) of the Law no. 8652, dated 31.07.2000 on organization and functioning of the local government units, identifies the Communes and Municipalities as being responsible for graveyards administration and ensure the burial services.

Law no. 9220, dated 15.04.2004, governs the public service of burials in general. Burials must be performed in cemeteries located beyond the reserved zones of inhabited centers. In centers a population above 10,000 inhabitants, the reserved zone should be more than 100 m from the border line of the inhabited center and for that population smaller than 10,000 inhabitants, should be more than 50 m. When necessary for public interest graveyards may be destroyed, subject to the authorization by a Special Commission established by the Municipality/Commune Council, and a decision taken by the Public Sanitary Inspectorate. Exhumation is the responsibility of the mayor or Head of the Commune and new graveyards must be located and designed by the departments of these respective leaders' institutions.

### 2.4.6 Social, human rights and participation

The Family Code (Law No. 9062, Adopted May 8, 2003) identifies the community property regime as applicable when spouses have not signed a contract designating another property regime. Under this regime, the wealth of the spouses is presumed as joint, unless one spouse proves its personal character or changes the regime contractually. If one of the spouses exceeds their rights related to community property, the other spouse can request that the act be annulled if they did not give their consent for this act. A division of wealth cannot be made during the continuation of the community property regime, even in the case of an agreement among spouses. Upon the initiation of proceedings for division of the marital estate, spouses or their heirs have the right to take personal movable property, owned by them prior to the marriage or that they have gained during the marriage in the form of inheritance or bequest. In the absence of contrary evidence, movable property is presumed to be part of the marital estate.

Law Nr.9198, dated 26.2.2004 on an equal gender society sets out measures to promote equal opportunities among men and women aimed at eliminating direct and indirect discrimination on the



grounds of gender. Law No. 8086 of 13 March 1996 ratifying the International Labor Organization (ILO) Convention No. 105 Abolition of Forced Labor and ILO Convention No. 138 concerning Minimum Age for Admission to Employment and Law No. 8774 of 23 April 2001 on the ratification of Convention No. 182 of the International Labor Organization Worst Forms of Child Labor, 1999.

### 2.5 Expropriation procedures

#### 2.5.1 Introduction

Land needed by DHP for the Hydropower Project will be expropriated following the GoA legal requirements on expropriation as outlined in the Concession Agreement between DHP and the GoA.

This Section describes the expropriation process for land to be acquired. It also describes grievance processes (of the GoA) to be implemented during various stages of Project planning and implementation, the process to be used, and the review management process for feedback and grievances.

#### 2.5.2 The nature of the evaluation and payment of expropriation compensation

This section will deal with the expropriation process following Albanian law which will further be supplemented by the resettlement process. Construction of the Devoll Hydropower Project (DHP) will apply the standards and intent concerning compensation required by the IFC which differ from those normally applied under Albanian law.

Although the Republic of Albania and DHP at times have different roles and responsibilities in the compensation process, the major steps and the interactions of both entities with individuals being compensated may or may not occur at the same time.

Expropriation is exercised only for public interest that cannot be realized or protected in another manner. (I.e. in this case for the realization of projects and investments that present national or local territorial extent or interest in energy in the following procedure:

- 1. DHP submits the request to ministry responsible for the respective activity, with, as attachments, documents which are listed in Article 10 of the Expropriation Law.
- A Special Committee for expropriation is established in the responsible line ministry. When the
  ministry, through the Special Committee, is convinced that the documents are prepared based on
  the law and government decrees, it decides to accept the request for the expropriation and notifies
  the person that has made the request.
- 3. Within 10 days from such a notification it is foreseen to enter into agreement between the Ministry and the person who has made the request.
- 4. Within 10 days from the date of the signing of the agreement, the Ministry starts the procedures with respect to the owners of the properties affected. In the meantime a public notification is published in official newspapers and reputable national and local newspapers. These notifications are published during one week.
- 5. 1 month after the latest date of publication, the ministry submits the proposal for the expropriation to the Government, to take the final decision.
- 6. The subject in favor of whom the expropriation is done submits the application for expropriation to the ministry that is competent pursuant to law.



## 2.5.3 Organization Responsibilities for expropriation

A Special Committee for expropriation is established in the responsible line ministry. When the ministry, through the Special Committee, is convinced that the documents are prepared based on the law and government decrees, it decides to accept the request for the expropriation and notifies the person that has made the request. Within 10 days from such a notification it is foreseen to enter into agreement between the Ministry and the person who has made the request.

For the purpose of expropriation, a specialist land survey tem will be also required within Ministry. Within 10 days from the date of the signing of the agreement, the Ministry starts the procedures with respect to the owners of the properties affected. In the meantime a public notification is published in official newspapers and reputable national and local newspapers. These notifications are published during one week.

1 month after the latest date of publication, the ministry submits the proposal for the expropriation to the Government, to take the final decision.

#### 2.5.4 Overview of Land Access (LA) Legal Process

Based on the stipulations of the Concession Agreement, it was critical that DHP received all Land Access rights for all areas covering the project prior to the commencement of any construction activities. This is because the process is closely linked with the Albanian Laws on Licenses and Permits as well as Construction rights.

Based on early surveys it was concluded that land affected from DHP project area is situated in two districts of Albania, Elbasan, and Korca involving three regions, Elbasan, Gramsh part of Elbasan district and Korca district. There are 14 communes and 2 municipalities directly involved in LA process.

Final goal of LA process is to receive usufruct rights and/or other property rights for all requested land as predefined in Concession Agreement signed between GoA and DHP shareholders and approved by Albanian Parliament.

Land required for DHP construction areas is categorized in two main groups:

- 1. Public land, that is government land that is administered by the central or local authorities;
- 2. Privately owned land

For both categories of land, DHP was required to obtain a Usufruct Agreement or any site Agreement with GoA (more specifically, Ministry of Economy, Trade and Energy (METE).

#### 2.5.5 DHP Compiles Land Use Information

DHP prepares data of property affected by land take for the project under Albanian legislation in the proposed Project area based on existing formal cadaster records and assessment of immovable and movable property values undertaken by an evaluation expert.

After the final verified inventory of properties with legal title that are affected by the project is compiled it is sent to METE, in accordance with the Concession Agreement in the form of Site Request Documentation, where the private properties falls under the Expropriation Law and the state owned properties fall under the other laws on granting the properties for public interest.

DHP submits the application for Site Request Documentation, including private and state properties in accordance with the Concession Agreement.



- As regards to <u>private properties</u>, it is applicable the Expropriation Law and DHP has already submitted the application to Ministry of Economy, Trade and Energy on the list of properties sought to be expropriation accompanied by the requirements under article 10 of the Law.
- As regards to state owned properties, a request has been submitted to METE and other authorities
  to ask for granting of the site for public interest. The procedure is followed by the respective
  ministry and further forwarded to Council of Ministers for approval.



# 3. RESETTLEMENT AND LIVELIHOOD SUPPORT

#### 3.1 Current Situation and Overview

Resettlement in general terms is understood as "all direct economic and social losses resulting from land taking and restriction of access, together with the consequent compensatory and remedial measures." In this context, the term is not restricted to its usual meaning—physical relocation. Resettlement within the DHP framework includes (a) acquisition of land and physical structures on the land, including businesses; (b) physical relocation; and (c) economic rehabilitation of displaced persons, to improve (or at least restore) incomes and living standards. This program covers impacts on project construction land areas used for the main civil works (power generation plants, tailrace channel, borrow and spoil disposal areas, quarries etc.), contractor camps, new transmission stations and substations as well as the entire reservoir area.

The Project's social, environmental and economic safeguards will ensure the minimization of construction and operation impacts on the society and environment and will ensure (among other things) the provision of adequate compensation for Project Affected Households. The acquisition and either temporary or permanent use of land for construction and operation will result in impacts including disturbance, and temporary or permanent loss of land and assets, all of which will require compensation to those PAHs who may be owners and/or users of the impacted land and assets. Compensation for these impacts would employ a diversified set of methods such as: asset purchase or cash compensation (expropriation by the GoA), and/or direct replacement of land or assets in another location, and/or short and long term measures to restore impacted livelihoods or incomes based on the approved DHP Entitlement Matrix. These resettlement measures, in addition to being technically and economically feasible will require the acceptance by the PAHs to ensure success.

### 3.2 Baseline

The baseline data collected (and to be collected) consists of 4 parts. These are at various stages of implementation based on the construction timelines and prioritization of the Banja area during the data collection. This said, there is a comprehensive ESIA which can be found in the annex of the document which gives indicative information of the general impact areas for all 3 HPPs.

- 1. The socio-economic survey of the affected villages and people (including age, background, income and health issues) forms the basis for developing the economic target and the livelihood restoration plan for each of the resettler. This also serves to:
  - a. Identify occupants of the affected area to establish a basis for the design of the resettlement program and to exclude subsequent inflows of people from eligibility for compensation and resettlement assistance.
  - b. Standard characteristics of displaced households, including a description of production systems, labor, and household organization; and baseline information on livelihoods (including, as relevant, production levels and income derived from both formal and informal economic activities) and standards of living (including health status).
  - c. Complete census for inundated losses in the area, including land area, population, dwellings, fruit trees, crops, livestock, common property resources, physical cultural resources, local roads and other structures etc., which form the basis for the calculation of individual compensation entitlements for PAHs and/or village solutions. This includes the identification of any issues raised by different tenure systems in the project area;
  - d. Information on vulnerable groups or persons who may need special provisions. The World Bank (WB) has identified a general national trend on the slow incorporation of



women into the labor market and in decision making roles. Generally defined roles have relegated the female to carrying the burden of family welfare as housewives but gender discrimination has not been highlighted as one of serious concern in the project area.

- 2. Common property resources: An inventory of natural resources from which people derive their livelihoods and sustenance, non-title-based usufruct systems (including fishing, grazing, or use of forest areas) governed by locally/culturally/traditionally recognized land allocation mechanisms. On an individual basis it was difficult for PAHs to identify the common property contribution to their livelihoods but some estimates are indicated.
- 3. Public infrastructure and social services that will be affected (addressed under the Regional Development Program);
- 4. Assessment of the productive capacity of the remaining areas (in terms of both land and water resources) and the subsequent identification of land use options.

Since the initial phases of the project villages to be impacted have been visited several times to obtain data relating to village livelihoods and inform villagers of the project impacts. The consultations will continue throughout the resettlement process to help identify needs and solutions to mitigate potential problems. Based on the information on hand, the numbers of potential PAHs are as indicated in the table below:

No.	Commune	Village	~ PAHs (Asset Inventories)	No.		Village	No. of identified HHs
1	Gostime	Shtepanje	13	1	Kodovjat	Kokel	0
2	Costillie	Shushice e Vogel	54	2	Rodovjat	Bratila	18
3	Gramsh	Gramsh Town	22	3	Skenderbegas	Kullollas	1
4	Klos	Qafe	39				
5		Cekin	24		Total Kok	el	19
6		Ceruja	42	1		Dobercan	26
7		Drize	80	2		Gurshqipe	21
8	Pishaj	Gjergjovine	25	3		Maliq Opar	1
9	i isriaj	Pishaj	17	4		Lumaj	57
10		Qerret	18	5	Moglicë	Moglica	6
11		Cingar	40	6	Mognice	Nikollara	31
12		Trashovice	18	7		Osoja	13
13		Dushk (Silare)	23	8		Peshtan	3
14	Sult	Zgjupe Koder	15	9		Gjinikas	4
15	Suit	Mazrek	18	10		Kodras	14
16		Zgjupe Fushe	13	11	Lekas	Poponive	5
17		Blerimas	7				
18	Tregan Kacivel 11 Total Moglica		ica	181			
19	19 Shenavlash		34		Total Project	Avec	C4C
TOTAL Banja			446	Total Project Area			646

Table 3: Details on asset inventories taken for potential Project Affected Households (PAHs).

NOTE: Item in RED is an estimate where no full inventories have been carried out (to date).



Due to the nature of the population registration and the seasonal influx/outflow of workers, it is difficult to indicate the actual (real) % of the total population who are impacted in each of the villages. Estimates can be made in later reporting as required.

# 3.3 General Village Profiles

The villages are segregated by the geographic impacts based on the HPPs (Banja, Kokel and Moglice). A short description of each of the villages will give an indication of the extent of intervention required through the DHP Resettlement Program. In some cases, general LSD recommendations are included in the descriptions. It is important to note that the impact levels are based on current information and may be adjusted accordingly during the implementation phase.

### 3.3.1 Banja HPP

With the Banja HPP being the initial project impact, data collection is further along for the areas potentially impacted by this endeavor. It is important to note that the impact levels are based on the declared agricultural land loss and not based on the potential loss per household based on income from agricultural sources or total available land (which will indicate the remaining land options per village.) The impact levels – which will be modified following further data gathering initiatives - and activities carried out to address this will be further defined in the following sections.

### Shtepanje

Shtepanje village is located 2 km downstream from the Banja Dam. The impact on this village territory is limited to the project construction land requirements for the Banja HPP. 100% of the land to be impacted formally belongs to the GoA and PAHs here have tried to rehabilitate previous construction sites into agricultural plots without much success as a result, the main product cultivation on the areas affected are fruit trees.

#### • Shushice e Vogel

Shushice e Vogel is located downstream Banja dam but use agricultural land upstream and will be impacted by Banja construction works as well as inundation. The village was initially located upstream Banja dam but was relocated in 1988 due to the previous Banja project. The households were expropriated and provided with houses and land in Cerrik (located approximately 10-15 km downstream), but many of them still use the lands upstream. The total surface of the affected land is 42 hectares, all of which all is state land. Given the situation in this village and conflicting claims among previous land owners and current land users, the most suitable intervention for this village is communitarian.

# Gramsh Town

In total 2.1 hectares of land has been identified as impacted in Gramsh Town. The land used is located at the river bed and difficulty arises in the identification process as dependence on agriculture is less in this area as compared to the surrounding villages. Unlike the impacted households in the villages, where many similarities are found, almost each impacted household in Gramsh Town is a case that needs to be targeted with a specific compensation solution.

#### Qafe

Together with Shushice e Vogel Village, Qafe (Old Banja) will be one of the first villages to be impacted by the Banja HPP through the loss of agricultural land to the construction works. The loss of this land means that impacted households on an average lose 33% of their used agricultural and grazing land which corresponds to 24% of their total livelihood. The households use the produce



from the land mainly for their own household consumption while some sell the produce in the local markets.

#### Cekin

In total ~6.7 hectares of land will be impacted in Cekin Village. The impacted agricultural lands are located in the riverbed and, a small portion, at the tributary between Cekin and Qerret. The land under ownership located in the tributary while land lost in the riverbed is used land. Fodder and vegetables are the most commonly grown crops on the lost land combined with fruit trees on some lands.

### Ceruje

In total 4.1 hectares of land will be lost in Ceruje, mostly used for fodder, maize and vegetables. This loss of land means that the majority of impacted households in Ceruje lose less than 30% of their livelihood. Main issues are similar to other impacted villages, pointing to the lack of irrigation for agriculture, no sewage system and high input prices for agriculture.

#### Drize

Drize Village is an impacted village by Banja HPP reservoir with more than approximately 55 hectares and some residences projected as lost. The inventory in Drize has not been fully implemented due to lack of collaboration from village representatives although several attempts have been made to reach an agreement. At the time of writing of this document approximately 10% of the village has provided detailed asset inventories to DHP. This said, with a high ownership rate for land assets (ESIA p.684) there is confidence in the level of information for a total of 87 PAHs (from the expropriation process). Some individual households have accepted to provide the DHP teams an asset inventory and this will be used in the assessment of their losses, and the succeeding livelihood support option provided.

# Gjergjovine

In total ~4 hectares of land are lost in Gjergjovine village, the loss of this land means that the average loss is of 17% of their livelihood. The affected lands are mainly planted with fodder crops, vegetables and fruit trees. Similar concerns on irrigation, sewage and input costs are presented by this community plus some mention on the current lack of fodder and grazing areas.

### Pishaj

As most land lost in Pishaj do not have official landowners the compensation solution should focus on community level such as irrigation or agricultural support systems. On a household level, tree seedlings are a direct way to compensate for lost trees. A large proportion of the land lost is used for vegetable gardens.

#### Qerret

Qerret village is mainly impacted by the project by losing buildings and residential houses in the inundated area along the edge of the inundation/ buffer area. Very little agricultural land in will be lost due to the project in Qerret. In total 1.3 hectares of land (mostly land used for structures), 6 residences and 36 other structures are lost in Qerret Village. According to data from the inventory, the main constraints for the residents are irrigation, high prices of agricultural input, lack of land and labor for agricultural production and unemployment.



#### Cingar

In total 28 hectares of land will be lost in Cingar, mostly used for fodder, maize, vegetables and fruit trees. In addition, there are 4 residences in Cingar located very near the buffer zone/ highest water. The impacts (if any) on these households are dependent on various factors. Other impacts are the loss of access to agricultural lands and to forest areas.

#### Trashovice

Trashovice Village will have a low level of impacts due to the project. Of the total households in the village, 18 are directly impacted by through the loss of agricultural land in the riverbed. All of these households are users without legal titles to the lost land and some of the families have not used the land for the past 2 years. In total ~7.5 hectares of land will be impacted. The lands to be lost are mainly used for fodder production, such as oat, alfalfa and maize. Located on the left bank of the Devoll River, issues such as transportation (access to Gramsh), irrigation, grazing land, high cost of agricultural inputs, lack of sewage treatment and unemployment are the main concerns of the village residents.

#### Dushk

The reservoir will inundate  $\sim 36.5$  hectares of land in total of which 10 hectares are grazing land and the rest is agricultural land. Only  $\sim 2$  hectares is owned land while the rest is land in use. The reason for the large percentage of used land without property documents is that the village uses a large surface of land in Old Dushk. The old owners of these lands were expropriated during the Banja project in the 1980's, but are still using this land even though it is officially registered as state land. According to the former owners who are now users, this is a land of high quality and the inundation will have a great impact on their livelihood.

#### Zgjupe Koder

In total, 3 hectares of agricultural land will be lost in Zgjupe Koder mostly planted with maize, wheat and oat. Current issues mentioned during the inventory are steep slopes of agricultural land, lack of access roads and the lack of irrigation which prevents the residents from exploiting their agricultural lands and enhancing agricultural production. During the inventory, the affected households also expressed high concerns that the reservoir (and its fluctuations) might increase land instability in the area. Zgjupe Koder has already experienced several landslides which have caused damages to dwellings and agricultural lands.

#### Mazrek

In total 49.7 hectares of land used by Mazrek residents will be lost. This land is currently mainly used for fodder production, such as oat and barley, as the community's main means of income is livestock production. In order to provide enough fodder for their cattle, the households in Mazrek are using lands previously owned by the resettled Darzeza Village. As these are the most productive lands, the community's livestock activity will be greatly impacted by the project due to loss of fodder. The remaining land areas, if not effectively exploited, will not be able to yield enough fodder for the livestock; thus the households will not be able to keep the livestock which will have a high impact on their livelihoods.

#### Zgjupe Fushe

Similar to its neighboring village, Zgjupe Koder, there is a low impact in this village with approximately 2.6 hectares of agricultural land will be lost in Zgjupe Fushe along with 119 fruit trees. However, the surface of lost agricultural land is even smaller as many of these claimed lost



lands are fallow and has not been used for many years. The lost lands that are actually used are mostly planted with maize, wheat and vegetables.

#### Blerimas

Blerimas is located along Holta River. There are no buildings or trees impacted by the project. The total surface of lost land is 2.2 hectares, most of which is used for fodder. Similar to Kacivel, Blerimas households are claiming to use large land areas (around 3 hectares per households) which means that even though losses are large in terms of square meters per households there is enough remaining land for the households to develop which should facilitate the restoration of livelihoods for these PAHs.

#### Kacivel

Kacivel is located along Holta River and is impacted by losing agricultural land in Holta Riverbed due to rising water levels. The project will have a low impact in Kacivel with few directly impacted households. However the surface of lost land is large in proportion to the total land used by the households; in average households will lose 55% of their agricultural land. In total, the project will affect 13.5 hectares of land used mainly for fodder and wheat. In general, the standard of living in Kacivel is visibly lower than other villages impacted by Banja HPP. Common community development problems mentioned were the lack of irrigation; lack of potable water supply; poor conditions of inner village roads; and the absence of a school and health services.

#### Shinavlash

Shinavlash is located along Holta River and is impacted by losing used agricultural land in the riverbed. The project impacts on Shinavlash residents are hard to assess as the inventory process was characterized by conflicting data, and a large percentage of emigrated former residents who claimed land which they do no longer own or use. In total, the project will inundate 13.6 hectares of agricultural land, most of which is used for wheat and fodder.

### 3.3.2 Kokel HPP

### Kullolas

With high out migration (with seasonal returnees for harvest season) project impacts on permanent residents is low, with only 1 potentially PAH identified to date.

### Bratila

Information indicates that there are 10 occupied residences in this village with another 34 vacant and 19 derelict structures. For any project impacts in this village, 18 households have been identified but their level of impact (agricultural and structure) will be determined later.

# Kokel

With approximately 65 residents and 15 occupied residential structures, to date there are no identified households for project impacts.



# 3.3.3 Moglice HPP

#### Peshtan

With approximately 37 residents remaining, the village has experienced a high depopulation in the last 20 years due to low access to social services and a general economic decline.

#### Kodras

The 54 residents have been described as a marginalized and vulnerable group by the ESIA. Those who could afford to move to more urban areas have done so at the end of the communist era leaving only the poorest segment to remain in the village.

#### Osoje

With 25 residents, majority of the population migrated to Tirana, Korce and Durres at the end of the communist era.

### Lumaj

Lumaj has approximately 60 residents with 12 residences occupied. Based on initial estimates, this village will have to be resettled due to the elevation of the Moglice HPP reservoir. Preliminary discussions with the villagers have indicated their desire to move to Korce where they have relatives and closer ties.

### Gjinikas

With approximately 6 permanent residents, the majority of the population has out migrated to Greece, Korce, Tirana and Vlore. Seasonal residents return during the summer months for harvesting.

### Nikollare

There are 21 permanent residents in this village. Based on initial studies, this is a village identified for resettlement with the residents indicating the desire to move back to the upper sections (Upper Nikollare).

# • Gurshqipe (Popçisht)

There are approximately 30 residences with 70 households in this village. Studies have shown a higher socio-economic status of residents here in comparison to those in Nikollare with access to electricity, satellite television and working irrigation systems.

# Maliq-Opar

The low population in this village (17 residents) is due to the lack of access to social services with the majority moving to larger urban areas.

### Moglice

The largest population for impacts of the Moglice HPP can be found in Moglice village with 450 residents. While the majority has out migrated, the remaining population are those who could not afford to move, less skilled and generally vulnerable.



### 3.4 Rationale and Approach

It is important to differentiate the various activities that are to be carried out under the DHP Resettlement Program, including the physical relocation of houses and other structures (to another area), compensation for the loss of materials, labor and production, and the rehabilitation of livelihood systems so that these severely impacted people can become project beneficiaries. "Severely" is defined as PAHs who lose their homes and/or a considerable part of their livelihood and must be transferred to a different location due to project impacts.

Preference will be given to land-based strategies for PAHs whose livelihoods are land-based. These strategies may include the use of public land or private land acquired or purchased by the project. Whenever replacement land is offered, PAHs are provided with land for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the land taken. If land is not the preferred option of the PAH, or sufficient land is not available at a reasonable price, non-land-based options built around opportunities for employment or self-employment will be provided.

To address the impacts covered, the resettlement policy framework includes measures to ensure that the PAHs are (i) informed about their options and rights; (ii) consulted on, offered choices among, and provided with technically and economically feasible alternatives; and (iii) provided prompt and effective support at full replacement value for losses of assets attributable directly to the project.

					Resettle	ement Consulta	tion Activities			INVE	NTORY Durat	ion
No.	Village	Asset Inventory	~ PAHs	Inventory and DHP Resettlement Program general Introduction	Inventory Results and Entitlement Matrix	Resettlement Program Village Consultation	Household Individual Consultations (HIC)	PAHs with HIC to Date	% of Total PAHs	Start	End	Net Working Days
1	Shtepanje	13	13	none	None	01.08.2013	Ongoing	12	92%	14.06.2012	13.11.2012	109
2	Shushice e Vogel	54	47	22.05.2012	None	02.05.2013	Ongoing	45	96%	22.05.2012	16.08.2012	63
3	Gramsh Town	22	14	none	12.10.2012				0%	31.03.2012	25.09.2012	127
4	Qafe	39	32	none	None	23.08.2013	Ongoing	27	84%	19.07.2012	06.12.2012	101
5	Cekin	24	17	09.01.2012	08.08.2012				0%	11.01.2012	01.02.2012	16
6	Ceruja	42	32	23.02.2012	14.08.2012				0%	27.02.2012	16.08.2012	124
7	Drize	13	80	None	None				0%	24.10.2012	12.11.2012	14
8	Gjergjovine	25	13	09.03.2012	15.08.2012				0%	12.03.2012	02.04.2012	16
9	Pishaj	17	7	25.01.2012	26.07.2012				0%	08.02.2012	29.02.2012	16
10	Qerret	18	14	26.03.2012	09.08.2012				0%	03.04.2012	15.08.2012	97
11	Cingar	40	25	19.03.2012	16.08.2012				0%	17.03.2012	24.10.2012	158
12	Trashovice	18	18	24.01.2012	02.08.2012				0%	26.01.2012	27.02.2012	23
13	Dushk (Silare)	23	17	11.04.2012	24.08.2012				0%	12.04.2012	19.04.2012	6
14	Zgjupe Koder	15	9	20.04.2012	23.08.2012				0%	23.04.2012	10.05.2012	14
15	Mazrek	18	18	06.04.2012	21.08.2012	03.06.2013	Ongoing	18	100%	10.04.2012	12.04.2012	2
16	Zgjupe Fushe	13	6	17.04.2012	22.08.2012				0%	18.04.2012	20.04.2012	3
17	Blerimas	7	2	24.04.2012	29.08.2012	02.10.2013			0%	27.04.2012	30.04.2012	2
18	Kacivel	11	8	24.04.2012	11.09.2012	02.10.2013			0%	25.04.2012	02.05.2012	6
19	Shenavlash	34	17	26.04.2012	26.09.2012	01.10.2013	Ongoing	7	41%	30.04.2012	08.05.2012	7
		446	389					109	22%			

Table 4: Details on Resettlement Consultation Activities (Village and HHs)

Certain approaches will also be incorporated in the resettlement process which promote the active participation of women in activities ranging from consultation to monitoring, representation of women in



meetings and committees (when appropriate), and capacity-building and training programs inclusive of women. While gender issues have not been specifically identified as an area requiring specific focus, monitoring of participation based on gender will be carried out.

### 3.5 Organizational framework with various stakeholders

The resettlement and livelihood support process is not one that cannot work in isolation, nor can it work without a system of designated responsibilities and clear coordination lines, as such identifying key partners prior to any further works on the ground. One important thing to consider is the stakeholders involved in the process. There needs to be a clear organizational framework, possibly through the Institutional Working Group (IWG) which has already been established, with members of various government sectors and DHP. Here, it is important to identify the responsibilities for the delivery of resettlement and livelihood support measures and provisions of services to PAHs. It is an ideal forum to coordinate agencies involved in the implementation as well as identify any gaps during implementation. In addition to this, the use of the IWG and the involvement of local government units ensures that there is an established government competence should there be a required transfer to local authorities or resettlers themselves - in cases where the responsibilities for managing facilities and services are required - to ensure sustainability.

#### 3.6 Planning and Implementation

# 3.6.1 Demographic Information

Resettlement should be minimized as much as possible. Efforts will be made to assist PAHs to relocate to available lands located in the same village or where this is not possible, with a host community who willingly/readily accepts the resettler(s). In some areas, finding available relocation options within the same village boundaries is the preferred solution both by the PAH and the project.

Based on the information on hand, there is an initial estimate of potential houses and non-moveable assets which DHP has anticipated as due for replacement/relocation indicated in the tables below:



No.	Village	Loss of residence	Loss of other structures	No.	Village	Loss of residence	Loss of other structures
1	Shtepanje	0	5	1	Kokël		
2	Shushice e Vogel	0	1	2	Bratila		
3	Gramsh Town	1	19	3	Kullollas		
4	Qafe	1	3	Τ.	(al Kalad		
5	Cekin	0	3	10	tal Kokel		
6	Ceruja	1	2	1	Dobërçan		
7	Drize	12	43	2	Gurshqipe		
8	Gjergjovine	0		3	Maliq Opar		
9	Pishaj	0	1	4	Lumaj	12	100
10	Qerret	7	36	5	Moglica		
11	Cingar	3	7	6	Nikollara	6	50
12	Trashovice	0		7	Osoja		
13	Dushk (Silare)	1	7	8	Peshtan		
14	Zgjupe Koder	0		9	Gjinikas		
15	Mazrek	0	2	10	Kodras	13	40
16	Zgjupe Fushe	0	0	11	Poponive		
17	Blerimas	0	0	Tot	al Magliae	31	190
18	Kacivel	0	0	Total Moglice		31	190
19	Shenavlash	0	0	Tota	al Project		
TOTAL Banja		26	129		Area	57	319

Table 5: Details on Dwellings potentially impacted

NOTE: Items in RED are estimates

Given the asset inventory carried out for the Banja HPP impacts, there is more detail on the structures required for replacement in this area. Particulars are shown in the table below.



Village	Animal Shelters	Bar/Restaurant	Carpentry / Workshop	Cottage/Hut	Fence	Garage	Garner/Granary	Grave	Greenhouse	Outdoor Kitchen	Outdoor tap	Outdoor toilet / toilet	Shelter	Stockyard / Storage	Warehouse	Water supply structure	water supply pipes	water supply pump	Well	Other Building	Total
						Ва	anja	Res	servo	oir Ar	ea										
Shtepanje					1								1		2				1		5
Shushice e Vogel					1																1
Gramsh Town	3		1	5			1		3			2		2			1	1			19
Qafe														1						2	3
Cekin	1													2							3
Ceruja		1														1					2
Drize																					43
Pishaj									1												1
Qerret	5			12		1			4	1	1	5	1	3		1			1	1	36
Cingar	1		1									1		4							7
Dushk (Silare)	1				2			1				1		2							7
Mazrek				1										1							2
Total Banja	11	1	2	18	4	1	1	1	8	1	1	9	2	15	2	2	1	1	2	3	129
						Мо	glic	e Re	ser	oir A	rea										
Lumaj																					100
Nikolarre																					50
Kodras																					40
Total Moglice																					190
Total		1	2	18	4	1	1	1	8	1	1	9	2	15	0	2	1	1	2	193	319

Table 6: List of structures and other buildings on PAH land assets (estimated to date)

NOTE: Items in Drize Village (Banja HPP) and for all Moglice HPP areas are estimates

For impacts of the Banja HPP, the limited number of cases facilitates the relocation requirement as these are limited to only 1 or 2 per village (with the exception Qerret which has 6 and Drize which there is no inventory taken to date and only estimates are provided). The ideal would be to find locations within the current village territory to minimize other social issues in resettlement such as the acceptance of new/host communities.

The cases of villages in the Moglice area are far more complicated where larger resettlement sites will be required. Here, the first step in the identification of potential resettlement areas is the definition of certain criteria to enable the development of livelihood options for PAHs through the availability of suitable lands.



### 3.6.2 Livelihood and Sources of Income

The main sources of incomes can be divided into 3 main categories, remittances with a 20% share of total income, agriculture with 33%, and other sources such as businesses and employment with 47%.

The Gramsh district has a population of approximately 40,000 of which, roughly 14,000 live in the city, with the other remaining population residing in surrounding villages. The economy is based on agriculture, livestock, trade and services. The employment rate is low and a large number of families are living based on remittances from their relatives abroad. Apart from a wood processing facility, no industries are currently operative in the region.

Agriculture has traditionally been the backbone of the local economy contributing to one third of the incomes of Project Affected Households. While majority of the population is engaged in agricultural activities planting cereals, tobacco, trees and vegetables, generally these are limited to small family operations and subsistence farming for domestic consumption. Based on discussions with PAHs, this is due to the lack of functional irrigation systems, high production costs, lack of new technologies (agricultural equipment and machinery, farming practices etc.), unclear property rights and the low production capacity of soils (land) in the project area in addition to a limited access to outside markets and production facilities.

At the same time, remittances have also contributed to the sheltering of the local economy (in general) from the global economic downturn due to the high number of immigrants to Greece and Italy. Based on information gathered during the inventory and registration phase, about one third of family incomes are attributed to this source. While this has a positive impact on living standards through support for daily consumption needs, it has also contributed to the discouragement of individuals to participate in the labor markets causing a dependency on this income source. With the current trend in declines in available employment externally, this trend may be reversed with the return of immigrants from abroad due to severe declines in the economic conditions in Greece and Italy which is the primary destination for Albanian oversees workers.

The remaining portion of the income composition is mixed and a combination of other income generating activities such as employment and small businesses. The majority of Gramsh's employed work in the state sector as teachers, health workers, and in local administration. However, recently, some of the local administrative institutions, such as the main tax office, the law courts and the province's archives office, have been moved to Elbasan. With public sector salaries being minimal and undependable, public sector workers diversify and income from home-based businesses, such as hairdressing, dry cleaning or dressmaking, support family's income (ESIA 2011).



# Based on the information available from the baselines, the table below gives an indication of the key livelihood sources

			Key	livelihood sources		
No.	Village	Agriculture (Horticulture	and Livestock)	Employment / Skills	Natural Resource Use	Business
Banja	a HPP					
1	Shushice e Vogel	Vineyards, Olive-grove, Fruit trees, Wheat	Yes (including Bees)	Drivers, Electrician, Welders, Plumbers. Most residents are unemployed and do not own property due to Legacy Issues		
2	Qafe	Fruit trees, Wheat, Fodder Collection	Yes			
3	Ceruja	Vineyard, maize, fruit trees Greenhouses for vegetables (tomatoes etc.) Production of Raki and wine	Bees Grazing land close to the river	Skilled workers in the village include drivers, builders and welders	Fishing in Devoll and Holta Rivers Firewood, logging, grazing Hunting Herb collection	Bar and internet café
4	Drize	Vineyard, maize, fruit trees, Greenhouses for vegetables	Milk Grazing animals on the Left Bank of Devoll River Bees	Between 5-20% of Driza male permanent residents have construction skills	Forest Products Herb collection Hunting (rabbits)	
5	Qerret	Vineyards, fruit trees, figs, olive grove	Yes	Skilled workers in the village include welders, drivers, general labourers and skilled builders	Fishing in Devoll River Firewood collection Hunting (rabbits)	



			Key	livelihood sources		
No.	Village	Agriculture (Horticulture	and Livestock)	Employment / Skills	Natural Resource Use	Business
6	Cingar	Vineyards Garden crops (peppers, tomatoes etc.)  Sheep, cows and goats Bees		Skilled workers in the village including drivers, heavy machinery operators, construction workers	Herb collection Hunting (rabbits)	
7	Dushk (Silare)	Olive groves, vineyard, maize, fruit trees Garden crops (peppers, tomatoes etc.)	Yes. Grazing is mostly upslope.	Some villagers from Dushk work in Gramsh	fishing in Devoll River	
8	Zgjupe Fushe	Olive groves, vineyard, maize, fruit trees Garden crops (peppers, tomatoes etc.)	Yes.	Employment in Gramsh	Fishing (Devoll River) Herb collection Hunting (rabbits and ducks)	
Koke	I HPP					
1	Kokel	Fruit trees Garden crops (vegetables)	Sheep, goats and cows Bees Fodder Crops (oak, corn and wheat)	General labor skills		
2	Bratila	Vineyards and fruit trees Garden crops (vegetables)	Goats Bees Fodder Crops (oak)			Store/café beside the main road



			Key	livelihood sources		
No.	Village	Agriculture (Horticulture	and Livestock)	Employment / Skills	Natural Resource Use	Business
3	Kullollas	Fruit trees Garden crops	Sheep and cows (Milk) Bees Fodder Crops (corn and wheat)			
Mogl	ice HPP					
1	Gurshqipe (Popçisht)	fodder, corn, wheat, vegetables, vineyards and fruit trees	Sheep, goats and cows Bees Fodder Crops (clover fields, alpha alpha and oak trees)	Drivers and electrician	Firewood collection Herb collection Hunting (rabbits and birds)	
2	Maliq Opar	Apples, plums and sugar beets	Sheep, goats and cows Bees Fodder Crops	Construction skills	Firewood collection Herb collection	Grain mill (livestock feed)
3	Lumaj	Household Agriculture Corn	Sheep, goats and cows Bees Fodder Crops		Firewood collection Herb collection Hunting (rabbits, birds, boars)	Corn mill (livestock feed)
4	Moglice	Corn, fruit trees, cereals	Sheep, goats and cows Bees Fodder Crops	Drivers		



			Key	livelihood sources		
No.	Village	Agriculture (Horticulture	and Livestock)	Employment / Skills	Natural Resource Use	Business
5	Nikollara	Fig, plum, quince, walnut and peach trees Goats and cows grape vines Garden crops (vegetables)		Drivers, woodworkers and general labourers	Firewood collection Herb collection	
6	Osoja	Fodder, corn, beans, vegetables, grapes	Cows Bees	Drivers, Moglice Commune employee	Firewood collection Herb collection Hunting (rabbits, birds, deer and boars)	
7	Peshtan	Vineyards, fodder, fruit trees Garden crops (vegetables) Plum Raki, wine and plum molasses	Bees	Electricians, veterinarian, general labourers	Firewood collection Herb collection Hunting (rabbits, birds, deer)	
8	Gjinikas	Fodder, corn, beans Garden crops (vegetables)	Cows, sheep, and goats Bees	No special skills in village	Firewood collection Herb collection Hunting (rabbits and birds)	
9	Kodras	Household agriculture	Cows, sheep, and goats Bees		Herb collection	

Table 7: General Livelihood Sources in some selected project affected villages



Below is a table outlining the average breakdown and income sources for the majority Banja HPP impacted villages based on information available to date.

No.	Village	Agriculture	% of income	Natural resources	% of income	Other sources	% of income	Remittances	% of income	Total Income	% of registered land loss per village
1	Shtepanje										
2	Shushice e Vogel										
3	Gramsh Town	117,846	17%	4,308	0%	566,431	81%	7,692	1%	696,277	41%
4	Qafe										
5	Cekin	173,118	29%	1,364	0%	215,682	36%	206,455	35%	596,618	34%
6	Ceruje	183,832	31%	7,757	1%	353,784	59%	49,568	8%	594,941	31%
7	Drize										
8	Gjergovine	88,801	20%	4,479	1%	288,675	67%	51,771	12%	433,726	15%
9	Pishaj	45,782	8%	2,818	0%	437,305	83%	56,225	9%	522,252	40%
10	Qerret	369,431	23%	10,538	1%	230,646	14%	986,692	62%	1,597,308	8%
11	Cingar	158,004	34%	9,706	2%	159,365	35%	133,279	29%	460,354	45%
12	Trashovice	141,511	32%	-	0%	256,533	57%	50,000	11%	448,044	27%
13	Dushk (Silare)	182,496	30%	7,167	1%	214,500	35%	212,917	35%	617,079	43%
14	Zgjupe Koder	226,875	48%	4,000	1%	201,383	43%	39,167	8%	470,592	22%
15	Mazrek	368,441	59%	1,471	0%	154,871	25%	100,000	16%	624,782	58%
16	Zgjupe Fushe	35,190	14%	-	0%	186,720	72%	42,500	16%	258,910	20%
17	Blerimas	652,680	50%	-	0%	141,360	22%	500,000	39%	1,294,040	15%
18	Kacivel	555,400	78%	52,300	7%	96,760	14%	5,000	1%	709,460	55%
19	Shinavlash	90,638	19%	265	0%	294,541	61%	100,000	21%	485,444	22%
	Average Banja	226,003	33%	7,078	1%	253,237	47%	169,418	20%	653,988	32%

Table 8: Income sources for Banja HPP areas based on asset registration information

The ESIA provided indicative trends for villages to be impacted by the project broken down into sectors.

Sector	Cingar	Drize	Ceruja	Qerret	Dushk (Silare)	Kodovjat	Bratile	Kokel
Agriculture	5%	22%	42%	12%	0%	45%	46%	100%
Agriculture wage labor	16%		7%	28%	12%	6%	8%	
Rent			2%			2%		
Animal Husbandry		11%	7%	4%	15%	10%	7%	
Forestry		3%	9%			6%		
Civil servant / retirement pension	53%	28%	2%	36%	35%	17%	13%	
Remittances	21%	33%	31%	20%	38%	14%	6%	
Other	5%	3%					20%	
Total	100%	100%	100%	100%	100%	100%	100%	100%

Table 9: Income dependency/sources in selected Banja HPP villages

Similar data breakdowns can be found for villages impacted by both the Kokel and Moglice HPPs, details can be found below.



Village	Agriculture	Rent	Animal Husbandry	Trade / artisan	Civil servant / pension	Remittances	Other
Moglice	65%	4%			3%		
Nikollare		4%			2%	6%	32%
Lumaj	5%	4%	100%	100%	21%		
Total	70%	12%	100%	100%	26%	6%	32%

Table 10: Income dependency/sources in selected Kokel and Moglice villages

### 3.6.3 Resettlement Site Selection and Infrastructure Development

In these resettlement cases which will be done in different areas, the new locations should meet the following minimum criteria:

- The surrounding land should be suitable for agricultural development (soil, topography, water availability etc.) This condition should take into consideration previous agricultural land availability from the Resettlers original location with the intention of providing similar or improved conditions.
- The area should have year round road access
- · Availability of year round drinking water supply
- · Access to services

The same principle will follow for the relocation of private business properties which are impacted. This will be done following the concept of full replacement in addition to some other additional assistance provided by DHP during the transition between one business location to another. At the moment, 2 structures of this nature have been identified, a bar/restaurant in Ceruja and a carpentry workshop in Gramsh town.

To date there are 14 residences (estimated up to 26) and 86 (maximum of ~130) structures which are registered in the asset inventories taken for the Banja HPP impacts and up to ~ 220 in Kokel and Moglice HPPs. While there is no difference in the calculation of the replacement costs for each of the identified structures, there is a necessary distinction on how these will be implemented.

Another factor to consider in the resettlement of PAHs is the remaining agricultural land from which to derive agricultural production from. In certain cases, relocation due to high levels of agricultural land loss may be considered where there is no other land available within the village territory.

The general strategy has been to request the assistance of the GoA in the identification of potential resettlement areas which (after verification against the above established criteria) could later be proposed and further detailed with the resettlers. At the time of writing of this document, only preliminary discussions have been carried out through the Institutional Working Group (IWG) but the collaboration has been positive. Only indicative information has been proposed by individuals which still needs further confirmation. It is important that in addition to the individual requests, both the GoA and the community as a whole is a participant in the decision making processes. Mechanisms are still being established to ensure this.



### Displacement from owned land (with legal documentation):

The aim is to develop an independent and mutually acceptable mechanism to value these structures, compare to the expropriation amount, and provide either the remaining value in cash to the registered owner, or, as the case may be, provide replacement materials or infrastructure. As described, the valuation will be done on the basis of current replacement costs, without depreciation. In the event that a PAH requests a replacement infrastructure (to be built by DHP), the PAH will need to provide the either expropriation amount provided to him – in full – as a contribution to the replacement infrastructure or the land upon which to build the replacement residence on. The exact details will be agreed upon with each of the PAHs.

**Displacement from Production land (no documents):** The valuation of structures and other assets will be carried out as mentioned above. However, this will be verified and approved by the concerned DHP agreed Engineer. It will be forwarded to the local GoA / authorized engineer / certified professional for non-objection.

#### 3.6.4 Self-relocation and Departees

There is the potential for individuals or groups to decide that they would like to manage their own relocations without the assistance of DHP in constructing their replacement residences. While this is not the preferred solution, it is of course something that can be considered on the condition that the PAHs meet certain pre-determined criteria, which, while not finalized, could ensure an increased success rate in the physical relocation for some PAHs. One basic requirement would be that they were previous legal owners and that the proposed replacement relocation area is one where the PAH has legal tenure. DHP is committed to assist based on the specifications on the Entitlement Matrix.

In the event that PAHs prefer to leave the project area on a permanent basis, there will be a departees package, which would be provided to PAHs on the condition that (1) payment for land (through expropriation) requires that there is legal ownership (2) a demonstrated relocation area outside the project area (i.e., a residence in another city etc.).

### 3.6.5 House structures and designs

The design of the replacement residential structures will be developed and presented to eligible PAHs. It is proposed that 3-4 designs are developed and the areas proposed will be, in all cases, larger than the existing residential surface areas giving the PAHs maximum benefits possible. The models / designs are currently being developed internally and will be presented to the GoA specialists for non-objection prior to consultations with the PAHs.

# 3.7 Livelihood Support and Development (LSD)

The inundation caused by the Banja and Moglice reservoirs will result in the loss of a significant portion of land currently used by the adjacent villages for agriculture, livestock grazing as well as forest gathering and hunting areas. As an indication of this, only in the Banja area, there are over 700 owned or used land parcels affected, with ~ 400 PAHs. However, it is expected that the reservoir could provide a source of water for irrigated farming, thus allowing the increased production capacity of the remaining land. Currently, agricultural productivity is constrained by inadequate water supply, poor soil fertility



and topography and the lack of capital and technology capacities. The inhabitants of the surrounding villages have traditionally not depended on a single source of income for their livelihoods, having subsisted through a mixed livelihood base including agriculture, livestock, remittances and to a lesser extent on paid employment with an average of 30% derived from agricultural production. Therefore the livelihood restoration options will not be limited to agricultural development; other income generating activities/sources will be considered, on the premise that these could be more sustainable.

The objective of this planning and the activities involved in the program is to ensure that the PAHs are able to re-establish their livelihoods to at least pre-project levels. The primary consideration is the restoration of incomes/consumption diminished due to lost productivity of impacted assets which may be achieved by producing all or part of their losses on their remaining landholdings by increasing its production potential. Livelihood restoration activities are mainly aimed at assisting PAHs to restore secure living conditions that are comparable or better than pre-project conditions. Compensation payments in kind for lost assets and production may offset the losses, but livelihood restoration activities provide new opportunities enabling the PAHs to increase income and living standards.

While identifying LSD options (to assist the PAHs in selecting possibilities), the following factors shall also be considered:

- a) Education level and skills of PAHs;
- b) Likely economic activities in the post project period;
- c) Extent of land remaining;
- d) Suitability of economic activity to supplement the income;
- e) Market potential and marketing facilities.

The LSD program is seen as a partnership. Delivery of goods/services by DHP will be linked to specific counterpart activities/contributions from PAHs. This will assist in providing true ownership and involvement of the PAHs and minimize dependency on the project. In proposing livelihood strategies, it is important to note that previous experience as well as other social and cultural factors may affect the way in which a PAH will take advantage of the opportunities offered to them; these are beyond the DHP scope of responsibility. The livelihood options to be recommended will be based on those that are currently being practiced in similar conditions in Albania, and within the competence of the PAHs to ensure the maximum buy in from their end. Innovations and new technologies introduced will be evaluated by the agricultural expert and the implementation will be closely supervised by the agricultural support unit.

### 3.7.1 Agricultural development and promotion

The loss of agricultural land assets and the ability to develop alternative sustainable production systems to replace the losses is the primary challenge facing the program. While to date various options are considered for the agricultural livelihood packages, these have to be further refined to address the real situation (soil quality, water availability, current markets etc.). In addition to this, support services such as marketing, financing, processing facilities need to be in place to better understand the potential market opportunities for viable products (from the Devoll Valley) as well as link producers to markets.



While the main partner in the development of agriculture (options) would be the PAHs themselves, the Department of agriculture line agencies at the Communes would be the ideal counterparts both to provide additional support and technical assistance as well as to receive additional capacity building from the project. In this way, the activities on the ground would coincide with the national strategy for agricultural development and ensure future recognition of DHP initiated programs.

# 3.7.1.1 Land use plans and security of land tenure

In order to better understand the current and future use of land areas within the project area. The first step is the development to of a land use plan with the aim of identifying agricultural and residential land areas which can be reserved and developed for the project. This information, while the responsibility of the GoA through its line agencies, will assist in the establishment of livelihood support initiatives on land areas which are guaranteed for the use of the PAHs and thus assist in the sustainability of the endeavor.

One of the primary tasks carried out during the HICs would be the identification of security of land / tenure for the PAHs and their selected livelihood support option. This will be done in cooperation with the PAHs as well as the GoA to assist in identifying and securing suitable agricultural land that is available within the village boundaries.

Below is an indicative land use map developed to facilitate the understanding of current land use in the project areas



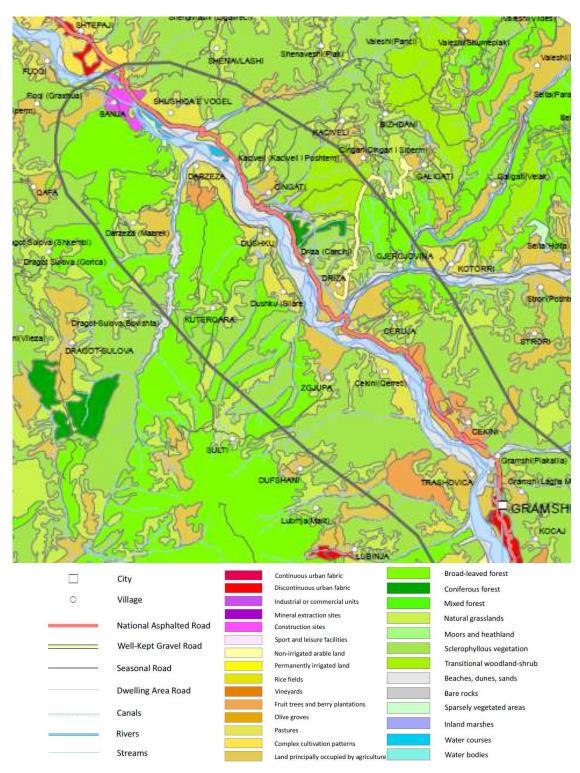


Figure 5: Banja HPP Land Use Map



Below is an indicative map of current and potential future land use for Driza village which was developed from information obtained from the cadastral offices. Further investigation and development could be carried out based on the future steps outlined for Driza village in coordination with the GoA. As mentioned earlier, the villagers here have not cooperated with DHP therefore it is unsure if any HICs could be carried out to present the DHP livelihood support options or whether the residents reject DHP actions unilaterally to which end they will remain with the GoA required expropriation values.

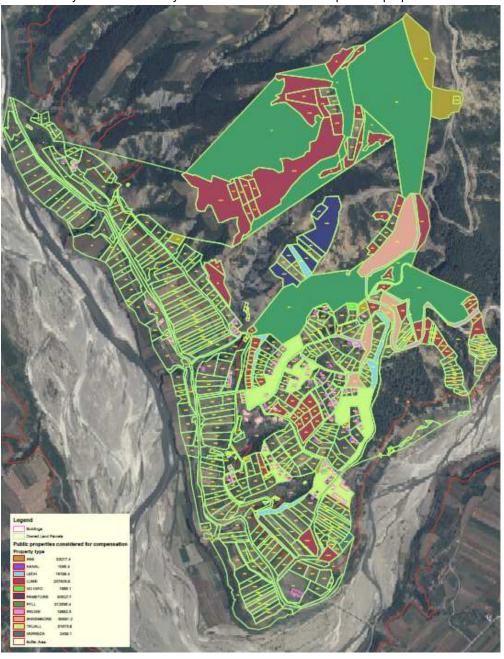


Figure 6: Driza Village Map



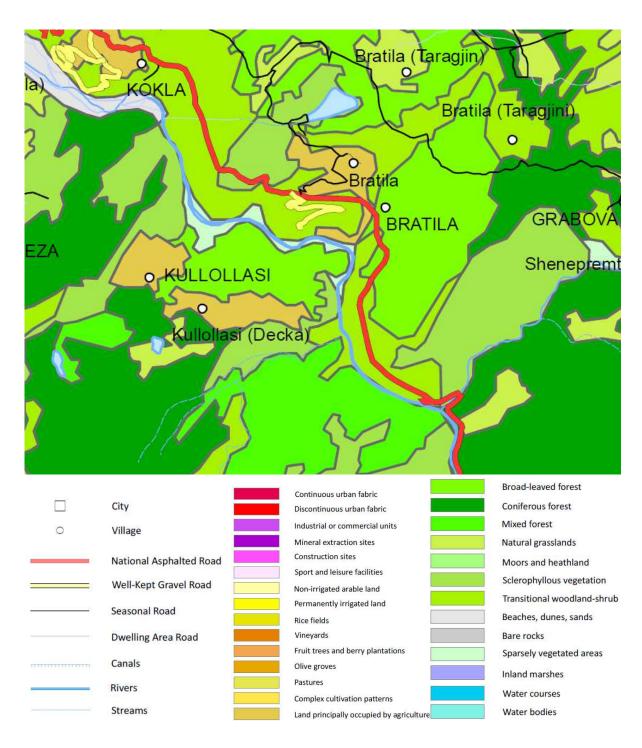


Figure 7: Kokel HPP area Land use map



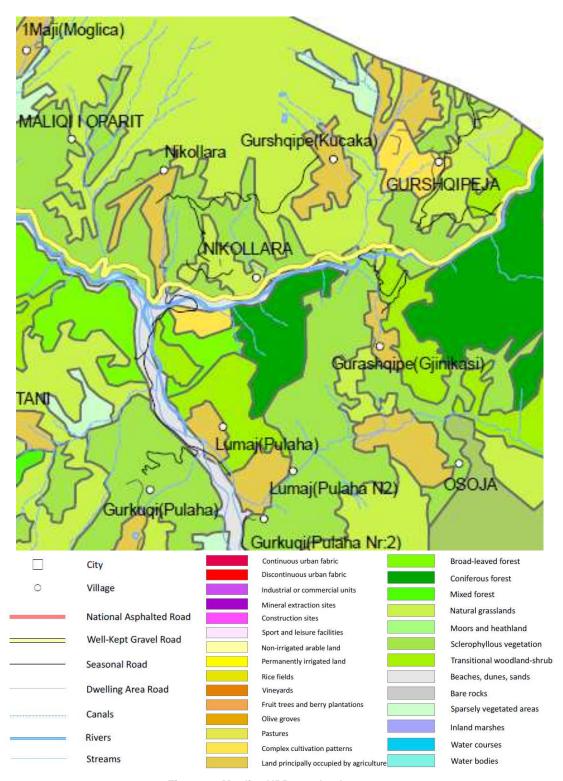


Figure 8: Moglice HPP area land use map



### 3.7.1.2 Demonstrations

As part of the first step in the presentation of viable agricultural alternatives it may be required to set up demonstrations and trials on the ground in order to (1) carry out livelihood activities proposed to PAHs and ensure its viability (2) show PAHs the technologies and techniques that DHP will provide as part of their livelihood support package (3) develop the most appropriate techniques and a training ground for future livelihood activities. It is believed that the establishment of demonstration plots/gardens/farms/areas will be a strong motivator and initiate interest from the PAHs on the commitment of DHP to ensuring the most appropriate assistance for their individual needs. Preliminary information has allowed more in depth studies of the Banja HPP impacted villages and below are the proposed demonstration activities that may be carried out if PAHs show interest in the activity.

No.	Village	<b>Demonstrations</b>
1	Cekin	Small tunnel vegetable production
1	Cekin	<ul> <li>Field testing of maize cultivars</li> </ul>
		Sage cultivation
2	Comic	<ul> <li>Small tunnel melon and watermelon production</li> </ul>
2	Ceruje	Greenhouse vegetable production
		Table grape production
		Greenhouse vegetable production
		<ul> <li>Small tunnel melon and watermelon production</li> </ul>
3	Drize	Pomegranate cultivation
3	Dilze	<ul> <li>Medicinal and aromatic plants cultivation</li> </ul>
		Table grape production
		Strawberry cultivation
4	Gjergjovine	Drip irrigation systems
5	Qerret	Small tunnel melon and watermelon production
<u> </u>	Qenet	Table grape production
6	Cingar	Drip irrigation systems
	Olligai	Medicinal and aromatic plants cultivation
		Vegetable greenhouse production
7	Trashovice	<ul> <li>Melon and watermelon small tunnel production</li> </ul>
		High density fruit tree orchards
		Field trial of maize cultivar
8	Dushk	<ul> <li>Maize precise seeding machines</li> </ul>
		Sprinkler irrigation systems
9	Zgjup Koder	Drip irrigation systems
10	Mazrek	Drip irrigation systems and fertigation devices
11	Zgjup Fushe	Field trial of maize cultivar
12	Blerimas	Drip irrigation systems and fertigation devices
13	Kacivel	Vegetable production in small tunnels
14	Shinavlash	Drip irrigation systems and fertigation devices

Table 11: Proposed demonstration activities for the Banja HPP impacted villages



Proposals will be provided to PAHs who have provided inventory information to determine their interest in establishing demonstration areas on their current land holdings to initiate a DHP presence in the village and demonstrate the company's strong interest in assisting in PAHs restore their livelihoods to at least pre- project levels.

### 3.7.1.3 Irrigation Development

#### 3.7.1.3.1 Baseline

The affected project areas lie in a hilly/ mountainous area, characterized by low quality arable land. Historically, irrigation was mainly done through pumped water systems from the Devoll river but these systems have, after the fall of communism, been left in ruins through the lack of maintenance and inability of households to cover operational costs. The high cost of irrigation and the absence of any recent investments into this from the Albanian Government (legal owners of these systems) has led to the degradation of all the irrigation schemes in the area over the last decade. Since then, farmers have tried very expensive solutions to continue their agricultural activity - primarily for fodder production but these have shown limited success.

The main challenge facing the development of viable irrigation systems is the long-term operation and maintenance requirements. Based on local law, the operation of the irrigation schemes are be done on a voluntary basis by the actual water users. The general country experience, even in full gravity schemes, has shown that this practice is not successful. Another issue that could impact the establishment of sustainable systems is that in 2012, the Ministry of Agriculture, Food and Consumers Protection decided to transfer some of the small irrigation schemes to the local government. While the concept of bringing the management of the systems down to the actual users, this did not solve the operational issues as the local governments have neither the financial means nor the technical knowledge to manage even small systems.

# 3.7.1.3.2 Scope & Activities

The main goal is to increase the arable land usage efficiency by supporting farmers' economic development through:

- Increasing land productivity as a way of mitigating land losses for PAH.
- Increasing the irrigable area (compared to current situation)
- · Reducing irrigation cost compared to actual costs
- Improving of Irrigation system through physical intervention
- Establishing of sustainable Operation and Maintenance organization and procedures
- Assist in implementing improved irrigation procedures for O&M

All activities will be divided into detailed yearly working packages. The goal is to assist the PAHs in using improved and sustainable irrigation practices.. To ensure success, the PAH, Village and local GoA cooperation will be an integral part and it will be necessary to confirm their commitment and interest in developing agriculture through high value crops and if necessary, contributing to the construction, operations and maintenance of the schemes themselves. However such potential



irrigation development needs to be balanced in respect to the DHP CA commitments towards power production. Main activities will include:

- Irrigation infrastructure improvements
- Assisting in individual irrigation solutions for project affected people, when communitarian solutions are not feasible
- · Suggestions and application of improved standard of irrigation service in the project area
- Establishment and follow-up on a long term program, to make the process sustainable.
- Establishment and training of irrigation organizations
- Monitoring the irrigation operation and maintenance
- · Support for the irrigation organizations with technical assistance
- Increase in the number of additional hectares under irrigation

In addition to the above mentioned potential implementation of irrigation systems, there will be a need to promote more efficient agricultural practices for land conservation and rehabilitation as well as water conservation irrigation techniques in all of the impacted villages.

# 3.7.1.4 Preliminary Livelihood Support and Development Interventions (Banja HPP)

In general, the strategy would hinge on the intensification of crop production in the remaining agricultural land available to PAHs.

Based on preliminary studies and discussions with the impacted communities in the Banja HPP area, below are the recommended LSD interventions that will be further proposed to the PAHs.

	Village	Possible alternatives (General)	Possible LSD Interventions		
No.			Possible Village Support	Individual Household Support	
1	Shushice e Vogel	Vegetable production	Rehabilitation of a certain	Livestock     Irrigation Systems	
		Fruit tree production	segment of irrigation channel	<ul><li>Irrigation Systems</li><li>Fruit tree seedlings</li></ul>	
	Cekin	Corn production		Seeding machines	
		Livestock (cattle)     management	Possible irrigation solution	<ul> <li>Sprinkler irrigation systems</li> </ul>	
2		Vegetable production		Livestock (cattle)     management	
		Fruit tree production		Fruit tree seedlings	
	Ceruje	Vegetable production		Fruit tree seedlings	
3		Medicinal and aromatic plant cultivation	Possible irrigation solution	Drip irrigation systems and fertilization devices	
		Wine and table grape cultivars			
		Fruit tree and grape     production			



	Village	Possible alternatives (General)	Possible LSD Interventions			
No.			Possible Village Support	Individual Household Support		
4	Drize	<ul> <li>Medicinal and aromatic plant cultivation</li> <li>Vegetable production</li> <li>Fruit tree production</li> </ul>	Possible irrigation solution	Small agricultural machines     Drip irrigation systems and fertigation devices     Sprinkler / mini sprinkler irrigation systems     Fruit tree seedlings     MAP-seedlings		
5	Gjergjovine	Fruit tree production     Wine and table grape production     Livestock expansion (small ruminants) production	Possible irrigation solution	Fruit tree seedlings     Goats and Sheep		
6	Pishaj	Fodder production	Possible irrigation solution	<ul> <li>Drip irrigation systems and fertilization devices</li> <li>Sprinkler irrigation systems</li> </ul>		
7	Qerret	<ul> <li>Vegetable production</li> <li>Medicinal and aromatic plant cultivation</li> <li>Wine and table grape cultivars</li> <li>Fruit tree and grape production</li> </ul>	Possible irrigation solution	<ul> <li>Fruit tree seedlings</li> <li>Drip irrigation systems and fertilization devices</li> </ul>		
8	Cingar	Fruit tree production     Livestock expansion     (small ruminants)     production     Medicinal and aromatic     plant cultivation		Construction of small water reservoirs     Livestock management (breed improvement: goats and sheep)     Fruit tree seedlings		
9	Trashovice	<ul><li>Vegetable production</li><li>Fodder production</li><li>Fruit production</li></ul>	Possible irrigation solution     Road construction	<ul> <li>Drip irrigation and fertigation devices</li> <li>Sprinkler irrigation systems</li> <li>Fruit tree seedlings</li> </ul>		
10	Dushk (Silare)	Fodder production     Livestock management     (animal husbandry)	Possible irrigation solution     Construction of water reservoir			



Possible alternatives Possible LSD Interv			Interventions	
No. Village		(General)	Possible Village Support	Individual Household Support
		Livestock management (meat production)		
11	Zgjup Koder	Fruit tree production     Livestock expansion (small ruminants) production		<ul> <li>Construction of small water reservoirs</li> <li>Livestock management (breed improvement: goats and sheep)</li> <li>Fruit tree seedlings</li> </ul>
12	Mazrek	<ul> <li>Fruit tree production</li> <li>Livestock expansion (small ruminants) production</li> </ul>	Road improvement assistance	<ul> <li>Construction of small water reservoirs</li> <li>Livestock management (breed improvement: goats and sheep)</li> <li>Fruit tree seedlings</li> </ul>
13	Zgjup Fushe	<ul><li>Fodder production</li><li>Livestock management (meat production)</li></ul>	<ul><li>Possible irrigation solution</li><li>Road construction</li></ul>	<ul><li>Drip and sprinkler irrigation systems</li><li>Calves</li></ul>
14	Blerimas	Fruit tree production     Livestock expansion     (small ruminants)     production		<ul> <li>Construction of small water reservoirs</li> <li>Livestock management (breed improvement: goats and sheep)</li> <li>Fruit tree seedlings</li> </ul>
15	Kacivel	<ul><li>Fruit tree production</li><li>Vegetable production</li><li>Fodder production</li></ul>	Possible irrigation solution	<ul> <li>Construction of small water collection reservoirs</li> <li>Drip irrigation systems and fertigation devices</li> <li>Fruit tree seedlings</li> </ul>
16	Shinavlash	Fruit tree production     Livestock expansion (small ruminants) production		Construction of small water reservoirs     Livestock management (breed improvement: goats and sheep)     Fruit tree seedlings

Table 12: Potential LSD for the Banja HPP impacted villages

# (other options based on PAH interest can be considered)

While initial agricultural studies have developed possible alternatives based on the information provided by the sample group, the final decision on LSD interventions will be based on the results of Household Individual Consultations (HICs) with the PAHs.



### 3.7.1.5 Micro credit and small business development

In many cases there are few formal financial services such as savings and loans which are available to PAHs. International experience has shown these services have proven to be a good instrument in enabling individuals to build assets and increase incomes, thus providing an income generating potential. In coordination with a proven microfinance institution (NGO, international organization, private company or government organization), or the development of local capacities, DHP's goal is to scale up access to these financial services for the PAHs with the initial capital contribution based on the entitlement for impacted assets and productions. In principle, any income generating activity with a credible business plan could be considered for financing (payment based on business plan milestones). Further studies would still have to be carried out based on PAH interest and feasibilities for the system.

# 3.7.1.6 Other Programs

Alternative options can be considered as substitutes to direct full cash compensations to PAHs who meet certain criteria, and where productivity restoration is foregone for other suitably viable livelihood alternatives such as fixed term deposits, education or pensions. Escrow accounts with fixed time deposit interest rates which can be used for cases where the university education of a household member is selected as the compensation option. In principle, pension schemes could also provide suitable options for Resettlers within certain household profiles. An important consideration is to review the existing government pension programs (and develop a comparable one) to ensure that capable people are given opportunities to remain productive if they so desire. A private institution (with government backed insurance guarantees) would be the most adequate service provider for this but further studies still have to be carried out. Based on the available market rates for example, compensation for assets and pension together may restore previous incomes and living standards.

#### 3.8 Resettlement Program Specific Indicators

The overall success of these activities will be measures in the monitoring of household income as mentioned above. However, there will also be program specific indicators for livelihoods, including:

- Number of consultation meetings and progress on reaching agreements with communities and households.
- Type of livelihood support or compensation for PAHs
- Numbers of assets lost due to project impacts are compensated. Should be commensurate to loss.
- Number of demonstration and trail areas.
- Outputs from farmer extension work (inputs, yields, outcomes, etc.)
- Number and progress on business investment schemes (from DHP supported micro credit program)
- Micro credit accounts and status (repayment rate, loans etc.)
- Number of pension/scholarship/other programs in place
- Vulnerable household monitoring
- % HHs remaining in resettlement areas after 3 yrs.
- Livestock expansion (small ruminants) production



# 4. SOCIAL DEVELOPMENT PROGRAM (SDP)

The DHP Social Development program is composed of mitigation activities and other complimentary interventions to support the implementation of the company's Environment and Social Programs. Its aim is to minimize both resettlement as well as environmental impacts from the project through a range of broadly scoped activities targeted towards public institutions and project affected communities as a whole.

It is an initiative designed to improve the overall benefits of the Devoll Community in order to mitigate the negative effects (direct and indirect) of the project and increase the positive outcomes. The RDP is an undertaking which will be carried out by DHP that involves the planning and development for the restoration, upgrade and improvement of physical infrastructure and other social services within the project area. Based on information contained in the ESIA, the Social Development Plan would take into consideration sub-sectors such as roads; water and sanitation, electricity and nutrition as well as health and education. With these important factors in mind, the program is initially designed to target four main areas of intervention:

#### Infrastructure Development Plan

IDP addresses the restoration, rehabilitation and improvement of public/ community infrastructure in the project area through the replacement as well as upgrading of public physical infrastructure and access to such that is lost due to the project or is requested due to the relocation or resettlement of PAHs. For the purpose of clarification, this plan will cover the impacts on access roads, water supply system and sources, electricity connection and physical cultural resources (PCRs).

# Health Plan

Supports health infrastructure improvement in the project area, provides assistance in the form of training and equipment to local health service units on Primary Health Care. There are no impacts on Health facilities or services in the Banja or Kokel HPP areas and as such, interventions will be carried out on a case by case basis as agreed upon with the local health authorities. Support in the Moglice HPP area will ensure access to health care to at least preproject standards.

### Education Plan

Will support educational facilities and the promotion of educational development in the project area through training and capacity building as well as the provision of equipment to local schools. Some impacts on school infrastructure and access will be experienced as part of the construction of the 3 HPPs.

#### Influx Management Plan

Is the monitoring of in-migration to the Devoll Valley which would complement the Health Safety and Environment initiatives at construction sites and camps. This provides awareness campaigns on traffic, health and environmental safety for schools and communities in close proximity with construction sites and camps.



### 4.1 Infrastructure Development Plan

#### 4.1.1 Baseline IDP

The reservoirs created by the construction of three dams will inundate main roads, minor roads, bridges and paths which are vital to connect villages with the urban areas that communities depends such as; school, health services, employment, commercial activities, social interactions (especially with family) work on their fields, collect firewood, and water supply in some cases. A part of the inundated infrastructure is the power lines, water supply and irrigation systems currently partly functional but in bad conditions. The Identified inundated infrastructure has been delivered to the IWG by relevant affected Communes. Community consultations have been conducted in Lower Devoll area and feedback with community recommendations will be addressed for infrastructure alternative solutions. Decisions and agreements will be taken with the relevant authorities on the options that GoA would support.

# 4.1.2 Scope & Activities

Infrastructure support programs will complement resettlement and compensation activities and support service improvements in the Devoll Valley and re-establish access infrastructure that is lost due to the project, with the aim of minimizing impact on the mobility of local people.

The following are the main activity areas and activities to be undertaken:

- · Roads and paths
  - Assess the results of consultations with local affected communities and their requests for infrastructure improvements as part of compensation packages
  - Restore access for impacted routes.. The exact nature of this restoration will be dependent on what is indicated in the Concession Agreement as well as other agreements between all stakeholders as each intervention will need to address all the local community as well as GoA requirements.

List of potential impacted infrastructure and the proposed interventions

Potential impacted infrastructure		Potential Impact	Possible Solutions	Responsible Party	Comments
Type	Location				
		Ва	nja HPP		
Asphalt road	Banja - Gramsh	Loss of main access road to Gramsh - Elbasan	Replace Gramsh- Banja road	GoA	DHP will pay GoA the cost for the inundated infrastructure. GoA will build the new Banja - Gramsh road
Rural access road	Banja left Bank	Loss of Left bank residents access to right bank main road to Gramsh/Elbasan	Build south shore road (B07) + Trashovice bridge	GoA (build the	In order to restore access for the left bank DHP has decided
Bridges	Silare / Zgjupe foot bridge	Upstream Left Bank residents (Silare, Zgjupe) lose access to Right Bank main access road to Gramsh / Elbasan. Access to: Markets,	(B07-01) will build left bank access (Silare, Lower & Upper Zgjupe, Trashovice) to Gramsh	bridge) + DHP (build B07)	to build south shore road. Trashovice bridge re-building is the responsibility of GoA.



Potential impacted infrastructure		Potential Impact	Possible	Responsible	Comments
Туре	Location	i oteitiai iiipaot	Solutions	Party	Comments
	Trashovice foot bridge	livestock grazing, social services (Driza School) and social networks. Left Bank Lower Devoll Residents (Trashovice, Silare, and Zgjupe) lose access to Gramsh. Access to: Markets,			
		livestock grazing, social services and social networks.			
	•	Mog	lice HPP		
Rural access road	Moglice	Malsise Tributary Villages and Nikollare, Gjinikas lose access to the main Gramsh/Korce road and the surrounding villages			
	Foot bridge at Lumaj on Malsise Tributary,	Malsise Tributary Villages (Lumaj, Peshtan, Kodras, Karbanjos, and Denasi) lose access to the Main Gramsh/Korce road.	1) Build Road M06, Moglice dam top to Kodras which gives Malsise Tributary Villages access to the main Gramsh/Korce road. 2) Build Road M12 which will link to Gjinikas, Osoja and Lekas	To be Defined	The access issue must, in the context of the CA, be considered in two Dimensions. First comes the main roads that will be inundated by reservoirs and need to be replaced. The CA specifies "that the developer shall pay the Government for the asset values lost by inundation and GoA will thereafter make decisions regarding road reconstruction". No final decision is made on these options to date.
	Road Bridge near Nikollara on Devoll River	Malsise Tributary Villages (Lumaj, Peshtan, Kodras, Karbanjos, Denasi, and Osoja) lose access to the Main Gramsh/Korce road.			
Bridges	"Peshtan" Foot bridge across Devoll River,	Malsise Tributary Villages (Lumaj, Peshtan, Kodras, Karbanjos, and Denasi) lose access to the Main Gramsh/Korce road.			
	Gjinikas Road Bridge across Devoll River	Left Bank Devoll River Villages (Osoja, Gjinikas) lose access to the Main Gramsh/Korce road.			
	Osoja Foot bridge on Osoja Tributary	Malsise Tributary Villages (Gjinikas, Osoja) lose access to the Main Gramsh/Korce road and the surrounding villages.	nosed interventions		

Table 13: Proposed interventions



Maps of proposed intervention for access restoration for Banja and Moglice connectivity Road B07 Road B07

Figure 9: Proposed Rural Replacement Roads in Banja

(not including the Banja - Gramsh Road which is not disclosed by the GoA)



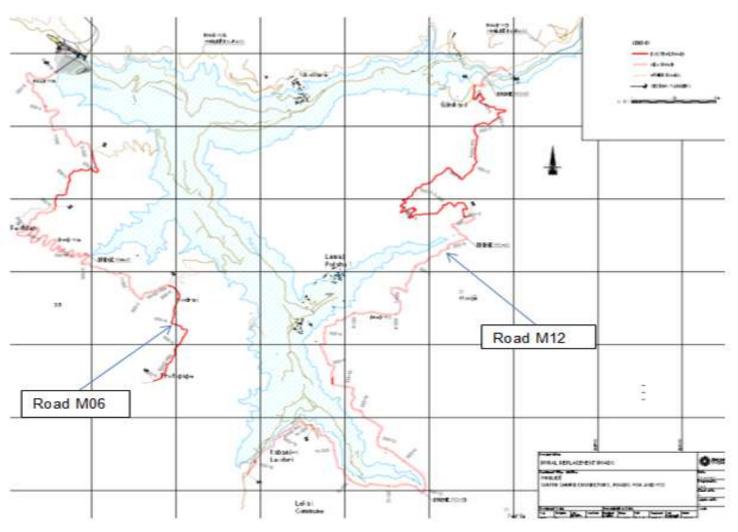


Figure 10: Proposed Rural Replacement Roads in Moglice



## Water Supply

- Devise detailed plans to be included in the AIPs for each year based on consultations and technical assessments with the GoA
- Supervision of construction and evaluation of work, and coordination with Water User Group if communal management is required

Below is a list of potentially impacted water resources (identified to date) and the proposed next steps:

Water Resource	es	Potential Impact	Proposed Rehabilitation
Туре	Location	Fotential impact	measures
Water pumping station	Shtepanje	Potential loss due to Banja HPP constructions and downstream water flow; potential access loss to water supply for 3 villages (Qafe, Shtepanje and Gostime), 480 families will potentially lose access to potable water.	Consult with respective authorities to provide technical solution for access restoration     Define DHP and GoA roles in this process
Public water supply	Drize	3 water springs and 1 water pumping station to be inundated. The whole village, 120 families will lose access to potable water.	
Water pumping station and potable water pipelines	Ceruje	Upper Ceruje loses access to potable water because of the impacted pipelines at Gjergjovine footbridge. Lower Ceruje loses access to potable water because of the inundation of the water source.	Consult with respective authorities on potential solutions to provide potable water to impacted communities
Public water source	Qerret	3 families lose access to potable water	2) Define DHP and GoA role in this process
Potable water pipeline	Trashovice	The whole village will lose access to potable water because the water pipelines (Kerpica water network) go through Trashovice footbridge.	3) Ensure that communities will have access to potable water.
Public water supply	Silare	2 water sources could potentially be inundated and the whole village could lose access to potable water due to.	
Water-supply Lumaj*		Potable water deposit distributing water from upslope Karbanjos Lavdari Village brought in 7 km long pipes and then piped into all 12 households in Lumaj Village.	*Lumaj and Nikollare are potential resettlement villages. Restore lost access by:
Water-supply	*Nikollare	Water supply will be inundated	ensuring that resettlers will have access to water

Table 14: Proposed interventions (water)



## • Electricity

 Supervision of construction and evaluation of work, and coordination with electricity respective authorities.

Maps of potential impacted Existing Power distribution networks



Figure 11: Banja downstream power distribution lines



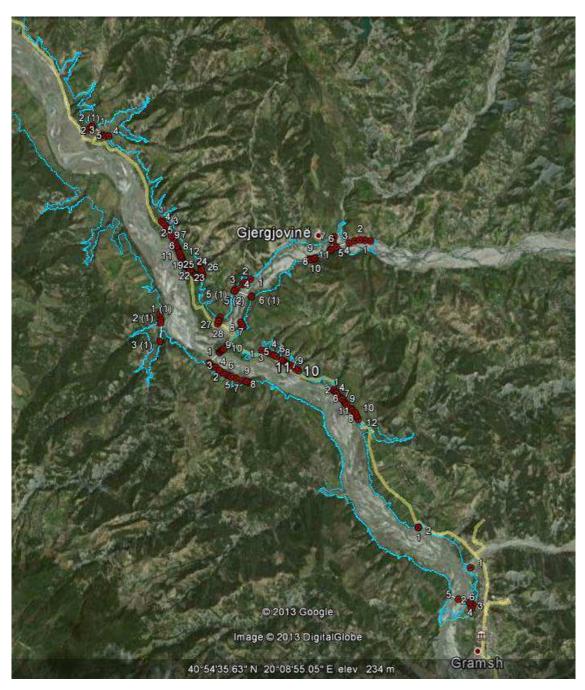


Figure 12: Banja upstream, power distribution lines



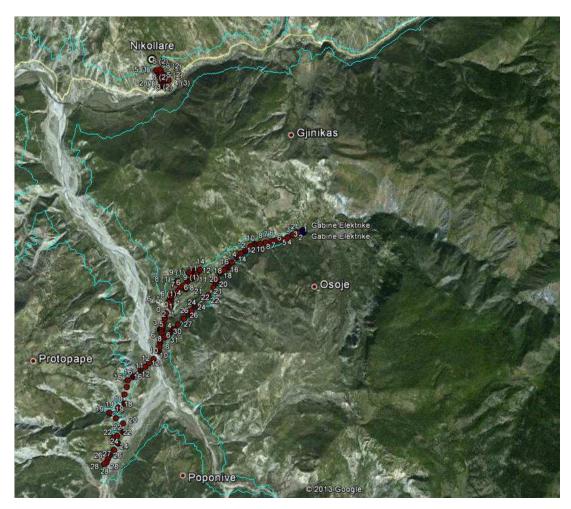


Figure 13: Moglice power distribution lines

Location	No of Electricity Cabins	No of electricity poles	Electricity Cable (m)
Banje Downstream	0	30	1,714
Banje Upstream	0	113	6,923
Moglice area	3	100	6,265
Total	3	243	14,902

Table 15: Low voltage power distribution lines potentially impacted

## 4.1.3 Program Specific Performance Indicators

- Kilometers of improved roads and paths
- Number of households with improved access to main roads



## 4.2 Physical Cultural Resources

#### 4.2.1 Current situation

Initial scoping studies indicate that are graves and memorials in both sides of Devoll valley. Graves are always given a high cultural significance as it is an extremely sensitive issue. Cultural/memorial sites are located in the whole project area inside maximum level of water and will potentially be flooded by the creation of the reservoirs. The possible grave sites and memorials along Gramsh – Elbasan, Gramsh-Lozhan national road have been visited in order to obtain contextual information on the area and the implications that they may have. These memorials are established after road accidents and according to the Albanian laws have been placed there illegally.

The historical memorials, however, are related with the heroes of the 1st and 2nd World War and have an important significance for the community represented by these heroes. The Devoll Valley population is mainly Muslim but not practicing as religious rites are not very much applied.

## 4.2.2 Scope & Activities

To mitigate relocation and where is not avoided to find solutions for relocation based on agreements with the relatives or institutions responsible

- Identification/assessment including consultation with affected families (when applicable).
- Replacement of shrines and other religious structures of at least the same type and acceptable to the community.
- Support for ceremonies and acceptable arrangements for relocation of moveable items and reestablishment at new site agreed with PAHs.
- Support to remove the accidents memorials (as required).
- Cooperation with specialized agency and license for exhumations and affected families.

## 4.2.3 Chance Finds Procedure

During construction it is recognized that discoveries, or "chance finds", of items or sites may be found. According to the law and the decision of archaeological council, the cultural heritage protection is under the civil contractor responsibility. In the event of 'chance finds' the DHP contractors are obligated to inform DHP so that appropriate coordination with GoA authorities can be carried out.

## 4.2.4 Program Specific Performance Indicators:

- Number of PCR's relocated (graves, historical memorials, religious structures)
- · Number of accident memorials removed and compensated.

## 4.3 Health Plan

## 4.3.1 Health Baseline

The public health needs in rural areas are challenging. Health Facilities in this area are in very poor conditions and are not able to cover the needs and do not perform a required standard regarding administrative, clinical and human resource operation. Based on the field verifications, it is pointed out that the Health Centers (HC) are old and dilapidated buildings, mostly in broken windows and in very limited premises. There is a lack of heating during winter time. Regarding sanitation, there is



lack of water supply, use of septic tanks and medical solid wastes are burnt or buried every month near the health center. Equipment and medicaments needed are very limited. Existing equipment doesn't meet the patients' medical needs. Overall picture shows that health facilities are operating with old equipment and there is a necessity for new ones and medicament sufficiency. Targeted HCs provide services for children, pregnant women, senior health care such as: injections, blood pressure check, vaccinations, mild wound and fever care, anti-allergic injections. Human resources are also another concern for these areas. Mostly there is only one nurse working at HCs and a doctor who works 2 or 3 times per week per HC. Certain specialists are not available at all.

Based on the socio economic inventory in Banja project area the average age of the infirmed is 52 years old. 56% of these are female and 44% are male. Only 8% of the interviewees accept to have no sickness and haven't suffered any illness the last year. The most frequent sickness is: cardiac conditions; 21% of the PAHs declare that suffer hypertension or other heart related diseases; 13% suffers bone and musculoskeletal problems; 11 % have neurologic disorders; 6% with pulmonary problems and the other part had health problems related to gastroenterology, kidney, endocrine, malignancy and obstetric issues.

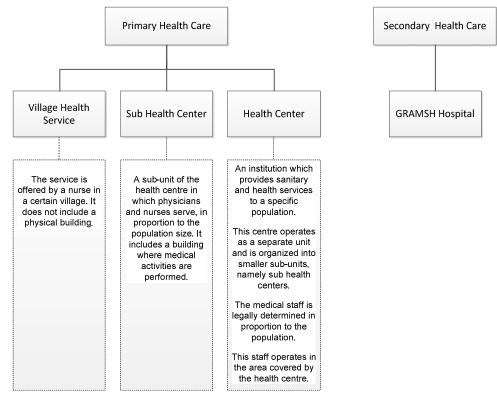


Figure 14: Health Structure in the Devoll Project Area



## Maps of Health Centers and Hospitals in the Project Area

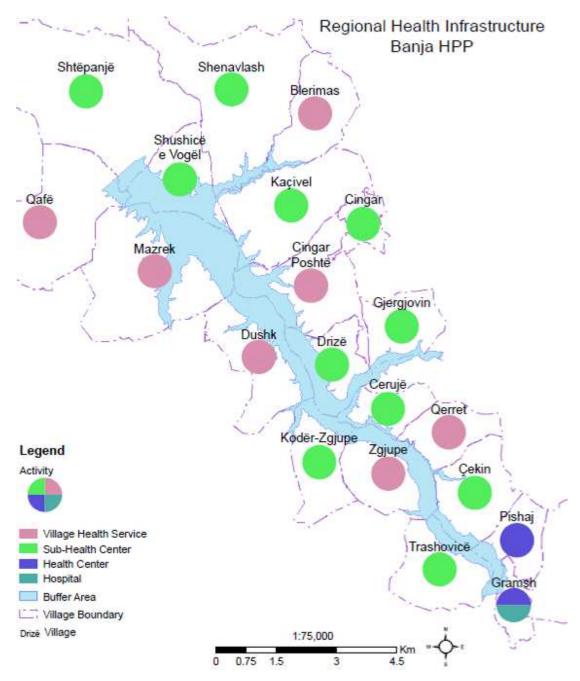


Figure 15: Existing Health Infrastructure in the Banja HPP area



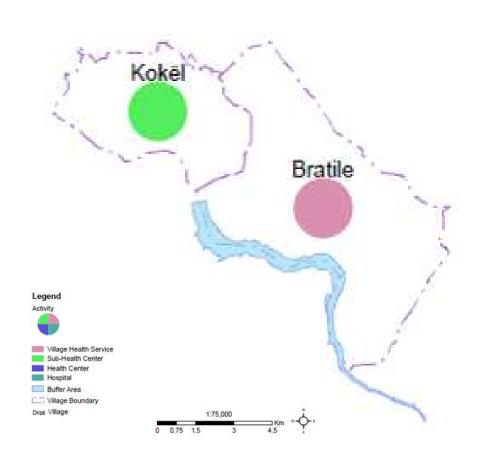


Figure 16: Existing Health Infrastructure in the Kokel HPP area



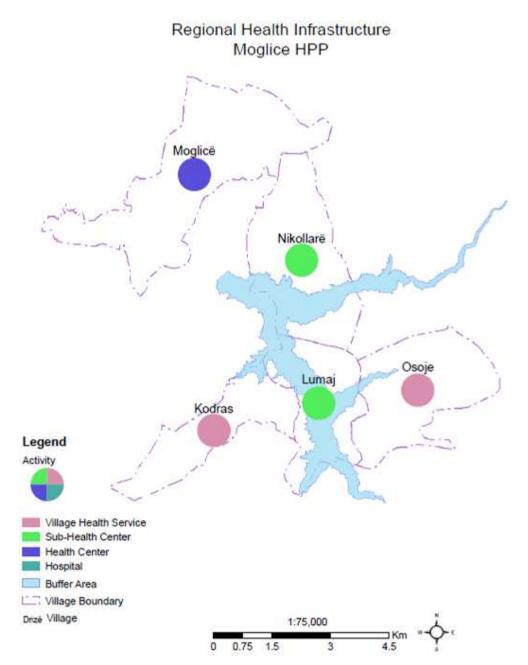


Figure 17: Existing Health Infrastructure in the Moglice HPP area

The main components of the Health Plan are:

- 1. Health Promotion/Mobile Campaign on Primary Health Care:
- 2. Capacity Building of Primary Health Care



## 4.3.2 Scope & Activities

- Mitigate the impacts of the loss of health facilities and services (Moglice HPP)
  - Two HC are going to be inundated, Nikollare and Lumaj HC. DHP will ensure that PAHs will have access to health care at the new sites.
- · Improve health services in Devoll project area
  - Promote health education through health campaigns on Primary health care in project areas.
  - o Trainings for health personnel with focus on village nurse service
  - Provide health equipment.
- Facilitate and support the upgrading/improvement of health facilities in Banja/Kokël/Moglicë HPP impacted area
  - Provision of electricity and water supply as required

## 4.3.3 Program Specific Performance Indicators:

- Number of health campaigns in project impacted areas
- Number of medical equipment packages distributed
- · Number of health facilities assisted
- · Number of specialized training sessions for health staff
- · Number of replaced impacted health infrastructures
- Number of PAHs that have access to health services at resettlement sites

## 4.4 Education Plan

#### 4.4.1 Education Baseline

To date, at least three educational facilities are known to be fully impacted by the project. These are located in Drizë, Nikollarë and Lumaj.

Students going from the left bank to schools in Gjerovine and Drize will also lose access to these facilities.

In addition to these primary impacts, the baseline shows that the education facilities in the Devoll valley are in poor conditions. The school buildings are almost dilapidated and partly leaking and in some cases only few classes are used. The teaching standards are under the average level due to; combined classes, moderate achievements, distance factor influences teachers fatigue and teaching efficiency, safety and health of children is not ensured (lack of heating and risk of building collapse).



The current state of Education and facilities in the Banja project area are as follows:

No	Basic education (I-IX)	No. of students*	No. of teachers*	Specific issue(s)	Infrastructure conditions **	Requested Items
1	Driza	92	10		Good. To be Inundated	N/A
2	Cekin	76	10		good	equipment for laboratories
3	Shushice e Vogel	127	11		bad	equipment
4	Mazrek	18	3	teaching process organized in compound classes	under construction	N/A
5	Lower Zgjupe	21	3	teaching process organized in compound classes	very bad	electrical installations, toilets, equipment
	Lower level (I-V)					
1	Trashovice	29	1	Teaching is organized in one compound class for all pupils	bad	toilets
2	Upper Zgjupe	8	1	teaching organized in compound classes	bad	toilets, equipment
	Secondary education					
1	Gjergjovina	122	14		good	electrical installations, equipment
2	Gostima	310	19		good	toilets, laboratories, equipment

Table 16: Baseline information on Education Infrastructure in the Banja HPP area

Bad: lack of/non-functional toilets, lack of teachers' room, equipment and laboratory.

Very bad: lack of basic facilities, dilapidated building, broken windows, roof leaks, lack of toilets.

Based on this information, below is a table identifying the potential impacts and some initially proposed measures/interventions to mitigate:

No.	Commune	Village	Baseline	Anticipated impact	Proposed mitigation measure
1		Shtepanje	Basic education.	There is no direct	Improve school
2	Gostime	Shushice e Vogel	There is one school in Shushice where	impact. Children might face	facilities as required.

<sup>\*</sup> Official data received from Gramsh Education Office

<sup>\*\*</sup>Good: functional laboratory, toilets, classes in good conditions, good conditions of the building, space for teachers/administration.



No.	Commune	Village	Baseline	Anticipated	Proposed
NO.	Commune	Village		impact	mitigation measure
			children from Shtepanje & Shushice e Vogel attend. Building is in bad condition.	difficulties during construction period due to dust, increased traffic and noise issues.	
3		Cekin	Basic education. Good condition.	No impact	
4		Ceruje	There is no school in Ceruje, children go to Drize school	loss of access to Drize school	Access to education facilities as determined by GoA
5		Drize	Basic education (I – IX), school building is in good condition	To be inundated	Access to education facilities as determined by GoA
6	Pishaj	Gjergjovine	Basic + secondary education. Students attending the school come from: Bardhan, Liras, Kotorr, Tërvol, Galigat, Bizhdan, Lower and Upper Cingar, Drizë, Cërujë, Gramsh.	No direct impact.	Support school with equipment as required.
7		Pishaj	There is no school in Pishaj. Children go to Gramsh schools.	No impact	
8		Qerret	There is no school in Qerret. Children go to Cekin school.		
9		Cingar	There is no school in Cingar, children go to Drize school.	Loss of access to Drize school	Access to education facilities as determined by GoA
10		Trashovice	Lower education (I-IV). Children go to Gramsh school for basic upper education (V – IX) and secondary education.	No impact	
11		Dushk (Silare)	No school in Dushk. Children go to Drize, Gjergjovine or Gramsh.	Loss of access to school (Silare footbridge to be inundated)	
12	Sult	Upper Zgjupe	Lower education (I-V), school in bad condition.	No impact	
13		Mazrek	Basic education. School is recently upgraded.	No impact	Access to education
14		Lower Zgjupe	Basic education (I- IX). School is in very	No direct impact.	facilities as determined by GoA.



No.	Commune	Village	Baseline	Anticipated impact	Proposed mitigation measure
			bad condition.		
15		Lumaj	Primary education. Youth go to High School in Lozhan and Korce	To be inundated	1) Access to
16	Moglice	Nikollare	Primary education (I- IX). There are Children coming from Nikollara, Popçisht and Kucaka	To be inundated	education facilities as determined by GoA.

Table 17: Proposed mitigation measures for education impacts

#### 4.4.2 Vocational Formation: Current Situation

The increased demand for skilled labor will be highlighted during the construction phase of the project. It is important that PAHs are given the opportunity to tap the requirements of these contractors as part of the project contribution to the increase in employment in the region. With this in mind, it has been noted that Gramsh is a small town where professional formation and training possibilities are very limited. There in fact is no vocational center which offers services in the Devoll Valley and individuals who are interested in furthering their skills are obliged to go elsewhere which dissuades many from the activity.

## 4.4.3 Scope & Activities

- Mitigate the impact of loss of school facilities in project impacted areas by ensuring that inundated school infrastructure is replaced by providing access to alternative educational facilities. There are three schools that are going to be inundated in Devoll project area located in Drize, Nikollare and Lumaj villages. The proposed measures for these impacts are as follows:
  - Consult with education authorities and impacted communities on potential alternatives for educational facilities.
  - Detailed planning for school relocation
  - Define GoA and DHP roles in the process
  - Ensure that new sites have access to education through existing schools or building a new ones
- Assist in the capacity building of education personnel to improve the quality of educational services provided by GoA personnel through the provision of training on teaching skills.
- Provide school equipment (materials, furniture) in order to ensure a proper educational environment.
- Extracurricular learning activities for children of communities to promote learning & social inclusion.
- Target PAHs for project required skills training to improve employment possibilities or sustainable livelihood opportunities.

#### 4.4.4 Program Specific Performance Indicators

Number of schools improved/replaced



- School equipment packages distributed
- Number of trainings realized for education personnel
- Number of extracurricular activities realized and its participants.
- Number of persons enrolled in the vocational courses (specific count for PAHs)
- Number of PAHs who receive an English certificate
- · Number and type of courses provided

## 4.5 Influx Management Plan

#### 4.5.1 Baseline situation

Infrastructure conditions in the Devoll Valley are relatively poor. No signs for safety are present and some of the villages are located on or in the vicinity of the main roads. Usually people have to access the main road to reach the local institutions such as schools, health centers and Commune centers. There is a risk of increased accidents as project traffic increases along these roads.

The influx of workers and other people taking advantage of economic opportunities could have negative impacts on the local communities. There could be increased pressure on the resource and service base for Devoll communities and competition with outsiders. This may create tensions and even crime. Demand will likely exceed local goods and basic necessities produced or sold in the project area. This could cause inflation and economic hardship. There is also a potential issue of crime, sanitation and Sexually Transmitted Diseases (STDs).

There will be keen competition for jobs on the project. During consultations, the issue of jobs has been raised frequently and DHP has been active with language classes and has been working with authorities and contractors to ensure employment opportunities for local people. However, it will be necessary to ensure employment and to work to secure jobs and work with recruitment agencies and the contractors.

The program is designed to avoid or minimize potential impacts associated with local and regional population influx into the project area that may occur as a result of the construction of the Devoll Hydropower Project. Sustainable local and regional economic development is important to DHP, and the Company is therefore developing specific measures to:

- Minimize and manage influx;
- Avoid, minimize or mitigate potential negative economic or social impacts which might result from Project-induced population influx; and
- Optimize opportunities for future economic development. Facilitate the sustainable growth and development of communities directly impacted and the wider Project Area of Influence;

The Devoll Hydropower Project will lead to population influx due to the arrival of not only a substantial work force but also a potentially large number of job-seekers and providers of goods and services. The Project's proximity to Elbasan and Tirana and the improved road network, as well as the culture of migration could lead to a case where in-migration multipliers can be as high as 3 or 4 (for every worker, 3 to 4 other people migrate into the area). However, as the operational workforce is established within the Devoll area and economic benefits become evident in Gostimë Commune and surrounding villages,



population influx is likely in at least the areas closest to the construction area.

DHP recognizes that it will be necessary to collaborate closely with both National Government and local and regional communities, and to support Commune authorities to understand their responsibilities and the challenges associated with population influx. The Project will change the social, economic and environmental setting of what is currently a largely rural area. The Project is committed to define and develop measures to manage influx by:

- Assisting with capacity-building for local communities and government organizations to develop skills, products and other services that can be sourced locally;
- Maximizing local content in employment and procurement practices, and support regional economic development;
- > Helping to monitor Project-related in-migration;

The scope of the proposed measures to address potential influx impacts from Project related activities. The plan applies to the Project Area of Influence which includes neighboring Communes, and considers potentially adverse as well as positive impacts related to Project induced in-migration, including:

- Impact to local cultural values, traditional life style and governance;
- Inflationary impacts on the local and household economy;
- Conflicts over Project-related employment;
- Opportunities for suppliers;
- Increased risks to public health and safety (including increased crimes against people and property);
- > Increased pressure on local social facilities, infrastructure and government services;
- Increased pressure on existing communal resources (such as water resources and pastureland);
- > Potential migration from other areas with better perceived opportunities;
- Increased risk of conflicts between local people and migrants;
- ➤ An expanded world-view among Project-area residents an influx of "outsiders" will provide diversity to what is now a quiet rural area and widen the perspective and horizons of local people;
- ➤ Economic growth workers and other newcomers, by satisfying their need for shelter, food and other necessities, will contribute to an induced economic development boom in the area.

#### 4.5.2 Influx Management Strategies

The key strategies that are to be adopted by DHP in relation to their contractors to reduce the potential risk of large scale influx include, but are not limited to, the following measures:

## 4.5.2.1 Local recruitment and workforce management

DHP is endeavoring for the implementation by our contractors of a range of human resources policies and procedures to ensure that local content is maximized and that the contract requirements are met. Hiring locally/regionally and developing local labor resources to avoid the need to import large numbers of outside workers. This is balanced by local recruitment only from designated recruitment offices with no site-gate hiring and a policy to minimize additional hiring from outsiders to deter speculative



migration. The Company is committed to investing in long-term training, scholarship and apprenticeship programs to ensure local workers have the knowledge and skills that the Banja HPP requires for its operations. Training will focus on areas such as construction trades, mechanical trades, custodianship, cooking, secretarial skills and the like. All recruitment and employment is undertaken in accordance with the terms of the applicable Albanian employment law.

The broad goals of the labor and recruitment program so far as they relate to influx are to:

- Maximize local and regional employment;
- > Manage the interaction of camp workers with communities; and
- Ensure equitable representation of local and regional communities in the DHP related recruitment.

At the moment the following measures are planned to be set in place to maximize local employment and spread hiring points to try to minimize speculative job seekers at the Banja HPP construction area and related work sites under the direct responsibility of the various DHP Contractors in close coordination with DHP:

- Decentralized hiring: policy to not hire at work sites. Offices that handle job registrations should be in place prior to mobilization. Contractors and subcontractors are also required to follow this policy.
- 2. Priority local employment: DHP intends to prioritize training, recruiting and employment of residents of local communities in the area directly impacted by the construction area and reservoir. DHP is prepared to assist the Commune and local authorities to update a local skills database (a general skills survey has been completed as part of the socio economic survey). This list is distributed to all involved construction contractors. DHP intends to monitor the hiring of local and regional residents.
- 3. Identification of locals: The Project is endeavoring to limit speculative in-migration by expressly excluding people moving into the Project Area without employment offers from being employed on the Project. DHP has a list of local residents and PAHs, to recognize all residents at that point as local people. Local people who were interested in employment will be asked to register at the Commune or unemployment office. DHP is committed to work with government to identify any additional local residents from migrants who have come from other towns if the need arises.
- 4. Disclose local hiring policy: DHP will request contractors to implement a communications strategy as part of their community engagement process to inform widely on the rules and procedures for recruitment and employment with the Project, including the preferential employment for PAHs. These awareness campaigns should continue throughout Project construction and operations to repeatedly inform the public of Project recruitment procedures before speculative jobseekers decide to move to the area.
- 5. **Transparency in hiring:** Employment opportunities are advertised within the local communities and recruitment procedures are fair and transparent. The Commune authorities as well as Labor Office should be informed of the hiring process.
- 6. Local training: DHP is committed to facilitate local people in applying for positions, including providing training local people to better understand and cope with wage-based employment required for the construction activities. DHP intends to designate a proportion of training opportunities directly for PAHs, as well as residents from any of the 7 Communes directly impacted by the Banja HPP. The Company intends to facilitate local people in securing training opportunities to equip them to win employment with DHP and contractors.



- 7. **Spread and balance employment opportunities:** Where possible, DHP will balance selected employment across villages in order to spread and balance the positive impacts on local economies and to give people incentive to remain in their original village and avoid making the Banja construction area a magnet that 'depopulates' the surrounding areas. DHP will monitor employment from each of the villages.
- 8. **Community engagement:** Contractors will have an appointed Community Relations Officers (CROs) for the construction site to work in cooperation with DHP with local communities on influx and other issues that arise. Community engagement plans need to be measureable and a regular program of engagement occurs with all Project Area villages.

DHP in coordination with its main contractor is committed to implementing the following measures to minimize the potential negative impacts of worker camps and workers on local communities:

- 1. **Grievance Redress Mechanism:** A formal GRM Procedure will be implemented to ensure timely and transparent response to complaints from local communities;
- 2. **Worker education:** The workforce will be sensitized to local social and cultural practices through provision of an induction course for all employees that stipulates expected behavior;
- 3. Worker behavior in camp: These requirements will be provided to all Project employees prior to commencement of work;
- 4. Worker code of conduct in the community: The Company will define some guidelines between camp dwellers and community - a Code of Conduct in the Community will be developed and implemented for all workers. Disciplinary action will be taken where these rules are not met (or referred to police in criminal matters);
- 5. **Working conditions:** Contract duration, shifts and regular leave allowances in place for staff to minimize the likelihood that workers engage in inappropriate behavior. Contractors are expected to have equivalent arrangements in place and DHP will audit contractors; and

Notwithstanding the above, day to day interaction between camp dwellers and the local communities will be extensive in the medium- to long-term and will require policing by the appropriate authorities. DHP is committed to co-operate with local Police to achieve alignment on security and policing philosophy and on practice and procedure.

## 4.5.3 Scope & Activities

- Awareness campaigns with schools and communities on health and environment as well as
  issues and concerns which may arise during construction activities concentrating on the area in
  close proximity to the project construction lands.
- A road and transport safety program will be developed in cooperation with the HSE Unit (for HSE
  implementation) with the goal of sensitizing the surrounding communities and project drivers on
  road safety. This will be monitored by ESM and will focus on:
  - o The traffic routes with high volumes of traffic during the construction phase
  - o Schools and communities in close proximity of the main traffic routes
- Provision of the Safety Packages for schools and communities. Florescent materials e.g. wristbands, vests, school bags with florescent stripes will be distributed to school children and community members.



- Provision for speed bumps and traffic control points near villages and school to be coordinated with the Owner's Engineer and DHP Management in cooperation with the contractors and local communities to ensure traffic safety
- Assistance to local law enforcement agencies responsible for crime prevention and enforcement, including information meetings and possible support for carrying out increased patrolling in specified areas near project construction sites and camps
- Assist local authorities and communities in compiling lists of eligible workers and lists of skills for contractors with the aim of ensure as much local employments as possible during the construction phase.
- Working closely with contractors regarding supplying food, basic items and materials that are locally available in the Devoll Valley.
- Awareness programs on Sexually Transmitted Diseases (STDs), sanitation and other personal health concerns for construction camps, workers and PAHs residing near camp areas.

## 4.5.4 Program Specific Performance Indicators

- Number of students and village residents that have attended awareness campaigns on Health and Environment Safety
- Number of Safety packages distributed to schools and communities
- Monitoring number of crimes reported
- Monitoring regional employment rates
- Number of businesses established
- Market pricing
- STD rates

## 4.6 Schedule and expenses for Social Development

Budget estimate in indicated in the table below. As with the other schedules a more detailed overview of activity costs will be presented in the AIPs.



## 5. ENVIRONMENTAL MANAGEMENT PROGRAMS

#### 5.1 Current Situation and Overview

Environmental Management Program is the process within the Environment and Social Management Unit of DHP tasked with the development of mitigation measures to minimize the negative environmental impacts of the development of the Devoll Hydropower Project. Environmental management within DHP framework also incorporates the recommendations indicated in the ESIA following both national and international Standards. As indicated previously, the ESIA document contains a comprehensive set of indicative impacts and mitigation measures harmonizing IFC Performance standards with the current Albanian law taking into account the desire towards accession into the European Union and the Albanian government currently in the process of upgrading its national standards to meet this.

More specifically, the Environmental permit (1107/1 dated the 27th of February 2012) issued to DHP by the Ministry of Environment, Forestry and Water Protection () and the "Removing from the forestry cadaster of the forest economy that is expected to be flooded by the Banja, Kokel and Moglice reservoirs" Law (4/2013 dated 31st of January 2013) has established conditions to which the company is committed to follow.

In this context Environment Management within the DHP framework includes as its main activities:

- Monitoring hydrology, sedimentology and meteorology
- Reservoir management and water quality;
- Forestry program;
- Water use issues with emphasis on irrigation requirements;
- Environmental conditions for the general construction activities (covered under the HSE unit of DHP);

The final conclusion of the Draft ESIA Feasibility Report (Norconsult, March 2010) was articulated as follows: "Since the formulation of the ESIA Screening and the ESIA Scoping reports, the Devoll Hydropower Development scheme has developed technical solutions that largely have reduced environmental and social impacts".

#### 5.2 Baseline

The baseline data collected (and to be collected) is grouped based on type of activities and impact associated with them. The various stages depend on implementation, operation and restoration programs which will be carried out.

- At the moment, there is no historical record of the Devoll river water quality data. To address
  any issues related to both sediment and water quality, DHP has established a laboratory for the
  measurement of physical parameters whereas the analysis (periodical) of chemical and
  biological parameters will be outsourced. To supplement monitoring information, both internal
  and external sources will be utilized, data will be obtained by:
  - a. Laboratory tests of water samples taken from pre-determined sampling areas with the aim of monitoring the physical and biological parameters established as impact indicators.
  - b. Laboratory test in certified Laboratories (local or international), which cannot be carried out by the DHP in-house Laboratory.



- c. Data acquisition from other regional or national institutions which are responsible for monitoring water quality such as the regional health institute; regional environmental agency etc.
- 2. Hydrology, Sedimentology and Meteorology data. DHP has obtained historical information from the Albanian Government, but this needs continuous updating to provide accurate information which can be acted on to manage any potential flooding during construction as well as create the basis and assist in the operation phase.
  - a. There will be two types of data collected in relation to Hydrology, Sedimentology and Meteorology; periodic and seasonal data.
    - i. Periodic data will be collected from fixed gauging stations at representative sites. The existing and new gauging stations will transmit the data to a server which will automatically populate the related database. Data quality check procedures will be established prior to collected data usage on any calculation.
    - ii. Seasonal data will be collected at established sites. This data will mostly include the results following the laboratory tests. Laboratory is a key data provider, especially related to sedimentology, which in turn is very important to aquatic fauna, reservoirs lifetime expectancy and operation & maintenance.
  - b. Flood upstream and downstream cases will be monitored in more detail to be analyzed and mitigation procedures / actions will be proposed.
  - c. Other national data will be collected from related national or international institutions.
- 3. Forestry data is collected and the obligation of DHP to deforest and reforest are set in Law No. 4/2013. Dated 31/01/2013.
- 4. Operational procedures and technical conditions of activities that may directly or indirectly affect the environmental conditions of the catchment area. Based on further investigation or the collected information decisions will be made on the most appropriate approach and mitigation measures. Such activities may include:
  - a. Forestry
  - b. Erosion
  - c. Waste Water treatments
  - d. Sewerage systems
  - e. Irrigation Systems
  - f. Urban Waste Management
- 5. On a case by case basis, data will be collected and further investigations may be carried out related to other potential impacts to the environment or protected areas within the catchment area. Potential threats will be monitored and data will be periodically analyzed / compared (in house or through outsourced expertise) related to potential impact sites by:
  - a. Military
  - b. Industry
  - c. Agriculture
  - d. Urbanization
  - e. Others
- 6. Through the GIS process, thematic mapping will be prepared in assistance to all the ESM needs. Mapping will be supported also by a complete structure of geo-referenced database and specific queries and reports will be produced in assistance to data handling and monitoring.



ON	Indicator / Provider	DHP Laboratory	External Laboratory	Central GoA (Ministry)	Local Government-s	Regional Institutions / Agencies	National Institutions/ Agencies	International Institutions	DHP fixed gauging stations	Field Data in Established Locations	Field Data in non Established Locations	Field Survey	Expert-s Technical Reports/Study	NGOs	GIS	DHP HSE / Owner's Engineer	Contractor
1	Water Quality	Χ	X			Χ	X			Χ						Χ	X
2	Hydrology						Χ		Χ	Χ							
3	Meteorology						X		X								
4	Sedimentology	Χ	Χ				Χ			X						Χ	Χ
5	Flood						Χ		X	Χ	X					Χ	X
6	Forestry					Χ	Χ					Χ					
7	Erosion						Χ					Χ	Χ			Χ	X
8	Waste Water	Χ	Χ		Χ	Χ					Χ	Χ	X			Χ	Χ
9	Sewerage	Χ	Χ		X	X					X	Χ	X			Χ	Χ
10	Irrigation		Χ		Χ	Χ					Χ	Χ	Χ				
11	Urban Waste		Χ		Χ	Χ						Χ	Χ			Χ	X
12	Military Pollution			Χ								Χ	Χ	Χ			
13	Industry Pollution			Χ								Χ	Χ	Χ			
14	Agriculture Pollution			Χ								Χ	X	Χ			
15	Urbanization			Χ								Χ	X	Χ			
16	Mapping			Χ	Χ	Χ	Χ	Χ							Χ		

Table 18: Overview of baseline data sources

## 5.3 General Project Environmental Profile

The project is grouped based on the HPPs (Banja, Kokel and Moglice). A short description of each HPP catchment area will give an indication of the extent of environmental issues. Detailed studies will be performed for environmental issues to replace the general descriptions and recommendations included in the ESIA and general impact assessments carried out during the planning phase.

Changes in aquatic environment by diversion of water and modified hydrological regime in certain reaches of the Devoll river. Water quality in the basin is generally good and in compliance with EU regulations regarding drinking water quality and waste water discharge. Uncontrolled solid waste dumps and other collected waste are found all over the catchment. It is expected that waste will enter streams and rivers that will cause reduced scenic quality of the water courses. This further could create problems for the operations of the HPPs.

A total of 10 fish species have been identified, none are considered rare. The ESIA also points out unconfirmed reports of trout in upstream reaches eel in the downstream area of the Banja Dam.

For further details, a broad biological baseline of the Devoll catchment area and impact ranking is carried out and reported in the ESIA Final Report.

## 5.3.1 Banja HPP

With the Banja HPP being the initial project impact, data collection is further along for the potential impacts and its catchment area. There is an indicative severity (level of impact) mostly based of urbanization and Industry. The catchment area is divided between Gramsh town as the most urbanized area and the other local government with less dense populations.



Gramsh town as the main urbanized area is considered the main influencer, especially, of the water quality in the Devoll river and Banja reservoir. The Gramsh town's main environmental issues are: 1) lack of waste management; 2) lack of waste water treatment; 3) amortized sewerage system; 4) lack of proper infrastructure in the recently nearby urbanized area; 5) medical waste management; 6) industry (potential) pollution;

The remaining environmental issues in the catchment area: 1) Forestry (unplanned re / deforestation); 2) Erosion, due to land abandonment or deforestation; 3) Irrigation (potential pollution, lack of proper water management); 4) Waste management (urban and construction); 5) farming (potential) pollution; 6) waste water upgrade (septic tank reconstruction or small networks);

In the catchment area between Banja and Kokel there are a few military factories and other military facilities which might be considered as potential threat to the environment. The beginning of the construction work might bring investors to reopen some of the old technology factories / farms in the catchment which might be of potential threat to the environment.

#### 5.3.2 Kokel HPP

Kokel HPP has a very small catchment area between its dam and Moglica dam. The catchment area is generally of low population density. Still, there might be some environmental influences such as: 1) Forestry (unplanned re / deforestation); 2) Erosion, due to land abandonment or deforestation; 3) urban waste management; 4) waste water upgrade (septic tank reconstruction or small networks).

There are a few military facilities and some abandoned industries/farms, though at the moment do not appear to have any influence on environment.

## 5.3.3 Moglice HPP

Moglice HPP has almost half of the total project catchment area. Although near the reservoir the catchment area is not very urbanized, upstream there are some big urban centers such as cities of Korca, Maliq and Bilisht and also is considered one of Albania's most productive areas with more than 40,000 ha of agriculture land (including Maliqi marsh). The Devoll river upstream Moglica is used as the main collector to drain all the arable land and also collect the urban water. Also Korca is a fast growing economy with a lot of industry potential to be developed further in the future.

Here, the environmental issues include: 1) Forestry (unplanned re / deforestation); 2) Erosion, due to land abandonment or deforestation; 3) Irrigation (potential pollution, lack of proper water management); 4) Waste management (urban, construction and industry); 5) farming pollution; 6) waste water (considering rural and urban zoning); 7) lack of infrastructure in the newly developed urban areas; 8) industry pollution (including mining); 9) medical waste destruction; etc.

#### 5.4 Rationale and Approach

It is important to differentiate the various activities that are to be carried out under the DHP Environmental Management Program, including implementation of direct and indirect mitigation measures. The aim is to minimize project impacts on both the environment and the community and establish mitigation measures which are most appropriate to the Devoll Valley conditions.

The indirect interventions aim mostly to build a sustainable approach in collaboration with other stakeholders to ensure the appropriate ownership of programs which are established. It would be done not only through awareness campaigns but also through assisting stakeholders in preparing and implementing specific management plans related to issues such as forestry, waste, sewage, water management, eco-profit approach, etc.



Priority will be given to waste water treatment and sewage, waste management (urban, construction, farm, etc.), downstream irrigation etc. DHP will not require ownership but will strongly collaborate with the owner of infrastructure (GoA institutions) to reach the most suitable solutions.

The approaches will take into consideration the promotion and active participation of all relevant inhabitants of the project area. That includes not only meetings and consultations but also capacity building and training. The aim is to raise the environmental awareness of the population so they become key observers of environmental threats and actors in environmental activities

A monitoring program on this will be established and mitigation measures will be considered as required based on the results. DHP will release the Environmental Flow Release (minimum flow) corresponding to 1-2 m3 and good engineering practices to mitigate potential impacts.

Sanitation, waste and sewage program are under development in cooperation with the GoA (LGU and National level).

## 5.5 Organizational framework with various stakeholders

As mentioned above the Environmental Management Program is strongly linked with other stakeholders. It cannot be thought as a project run in isolation by DHP excluding stakeholder active participation. The designed system would have clear responsibilities and commitments from each stakeholder, including DHP. That strongly involves regional institutions which have to implement and manage further of DHP direct investment program. Institutional Working Group (IWG) which has already been established, with members of various government sectors and DHP would be also used as the main coordinator of stakeholders activities. It is recommended that a high level Environmental Working Group established for DHP related interventions be considered.

Environment Management team will work closely with the owners of infrastructure and community to discus and agree on all the steps prior of infrastructure direct intervention. The most important steps of the program would have to show: 1) real interest on intervention; 2) commitment to collaborate with DHP; 3) interest in developing and following mid and long term plans related to the specific intervention with the appropriate counterpart contributions. As DHP will not require ownership of infrastructure, the owners have to commit themselves that they would participate in design, supervision and handover of the direct investment.

The local government commitment would be expressed through planning and budget approval for programs involving direct investment by DHP. The program will aim to maximize its limited financial resources through appropriate effective solution involving voluntary and financial participation of stakeholders as institutions or individuals. Environmental Management Program aims to guarantee this kind of involvement prior and during any direct investment to the related infrastructure.

## 5.6 Reservoir management, Water quality and Aquatic ecology

## 5.6.1 Hydrology, Meteorology and Sedimentology

## **5.6.1.1 Baseline**

The Devoll catchment area is located in a very diverse area in terms of urbanization, climate, elevation, all of which making it a challenge to any monitoring program. Hydrology, Meteorology and Sedimentology will be managed together. The established hydrology laboratory will also be used for water quality monitoring.

Although DHP has the historical hydrological measurements and three automated gauging stations, this data has to be continuously updated and hydrology trends and forecasts will have to



be adapted accordingly. To set up a system of hydrology (water inflow) forecast, data from weather stations will also have to be collected. That will allow the hydrology team to make more accurate flow estimates for the Devoll catchment. The Devoll river is one with an high sediment load which will require careful monitoring to later define any required mitigation measures.

These processes have to be set up in such way to be sustainable for the life time of the project (construction and operation).

#### 5.6.1.2 Scope & Activities

The aim is to set up and validate the inflow forecast system. To assist the emergency and safety team with real-time data and forecast. To prepare the best possible hydrology forecast to be used by the operation team. To provide data collected on sediments monitoring, suggest sediment mitigation measures, and investigate mineralogical composition in water that can cause deterioration of the Power House equipment..

This will be achieved through improving:

- Provide early warnings of extreme events.
- Set up the permanent gauging and meteorological monitoring stations on Devoll Catchment Area, and validate real-time data collection.
- Set up laboratory and testing protocols, to get reliable data to meet with international standards and expectations from DHP operators. This includes the analysis of chemical and physical parameters.
- Set up a long term monitoring program including weather, water and sediment monitoring and forecasting.
- Build up a database for Hydrology Model with GIS and weather forecast information
- Build up a database on reservoirs topography / bathymetry related to sediment assessment
- Make data available to local agencies for monitoring and collaborate with local and international institutions (as required).
- Strengthen the collaboration with interested scientific organizations, local or international
- Fulfill legal requirement of the Dam Safety Regulation
- Suggest (if any) technical measures to mitigate possible risks.

All these activities will be divided into detailed yearly working packages (in the form of the Annual Implementation Plan or other activity specific documents) in order to present a clear activities, budget and schedule breakdown.

## 5.6.1.3 Hydrology, Meteorology and Sedimentology data collection

Data will be collected on representative established sites. As can be noted on map, two types of data series will be collected related to Hydrology and Sedimentology and Meteorology periodic data and seasonable data.

Seasonal data will be collected on representative established sites. This data will mostly include the results following the laboratory tests.

	Hydrology	Sedimentology	Meteorology
	Flow	Turbidity	Rain
5	Water Temp		Snow
Periodic on fixed gauging stations	Air Temp		Temperature
	Water Depth		Humidity



	Hydrology	Sedimentology	Meteorology
	Flow	Turbidity	Rain
	Flow	Turbidity	
Seasonal on	Water Temp	Floating Sediment	
established sites	Air Temp	Settled Sediment	
	Water Depth	Topographical surveys	
		Grain size	
Laboratory		Turbidity	
produced		Suspended Sediment	
		Total Sediment	

**Table 19: Laboratory Testing** 

The main equipment related to hydrology, meteorology and sedimentology sampling.

	Hydrology	Sedimentology	Meteorology
	Air Thermometer	Turbidity Meter	Rain Gauge
Couging Stations	Water Thermometer		Snow Meter
Gauging Stations	Water Pressure (depth)		Air Thermometer
			Humidity Meter
	Current Meter	Turbidity Meter	
Seasonal on	Air Thermometer		
established sites	Water Thermometer		
	Meter		
		Filter (micro/macro)	
Laboratory produced		Turbidity Meter	
		Electronic Balance	
		Balance	

**Table 20: Laboratory Equipment** 

As seen the Laboratory is a key data provider, especially related to sedimentology, which in turn is very important to aquatic fauna, reservoirs lifetime expectancy and operation & maintenance.

## 5.6.1.4 Program Specific Outcomes

- Monthly, six month and yearly hydrology, meteorology and sediment report, including quantitative and qualitative data
- Yearly risk assessment report, including threats and possible solutions
- Flood mitigation, through early warning
- Operational water usage / Energy production forecasts



## 5.7 Reservoir management: water quality and biodiversity

## 5.7.1 Water quality

The objective of water quality monitoring is to give indicative information to ensure that there are no severe effects as well as allow sufficient quality for irrigation purposes from the creation of the 3 reservoirs. This will also provide data to confirm that there are no health hazards for the population, biodiversity and livestock.

Water quality will be measured periodically and in accordance with European Water Framework Standards as well as the established Albanian national standards. These parameters are as follows:

Parameter	Symbol	Unit	Method	Location	Frequency
Air Temperature	T <sub>air</sub>	°C	SM 2550 B	In situ	Monthly
Water Temperature	T <sub>water</sub>	°C	SM 2550 B	In situ	Monthly
pH	рН		SM 4500 -H B	In situ	Monthly
Dissolved Oxygen	DO	mg/l	SM 4500-O G (Probe)	In situ	Monthly
Saturation Oxygen	Sat O <sub>2</sub>	%	YSI Probe	In situ	Monthly
Nitrite + Nitrate Concentration	NO <sub>2</sub> + NO <sub>3</sub>	mg/l	SM 4500-NO3 E	In laboratory	Quarterly
Total Nitrogen Concentration	Tot – N	mg/l	SM 4500-Norg (Macro-Kjeldahl)	In laboratory	Monthly
Orthophosphate Concentration	PO <sub>4</sub> – P	mg/l	SM 4500 – P E	In laboratory	Quarterly
Total Phosphorus Concentration	Tot – P	mg/l	SM 4500 – P B+E	In laboratory	Monthly
Total Organic compounds	Tot – C	mg/l	SM 4500 - P B+E	In laboratory	Monthly
Chemical Oxygen Demand	COD	mg/l	Permanganate method	In laboratory	Monthly
Biological Oxygen Demand	BOD	mg/l	Permanganate method	In laboratory	Monthly
Thermotolerant Coliform Bacterias	TCB	no/100 ml	SM 9222 B (Membrane filter)	Within 24 hours	Monthly
Alkalinity (as CaCO3)	Alk	mmol/ L	SM 2320 B	In laboratory	Monthly
Calcium Concentration	Ca	mg/l	SM 3500 - Ca-B	In laboratory	Quarterly
Magnesium Concentration	Mg	mg/l	SM 3500 – Mg-B	In laboratory	Quarterly
Sodium Concentration	Na	mg/l	SM 3111 B	In laboratory	Quarterly
Potassium Concentration	K	mg/l	SM 3111 B	In laboratory	Quarterly
Chloride Concentration	CI	mg/l	SM 4500 - CI C	In laboratory	Quarterly
Electric Conductivity	EC	Ms/m	SM 2519	On site	Monthly



Parameter	Symbol	Unit	Method	Location	Frequency
Total Suspended Solids	TSS	mg/l	SM 2540 D	In laboratory	Monthly
Chlorophyll-a	Ch-a	Ms/m	Acetone extraction/ spectrophotometer	In laboratory	Monthly (summer)
Aluminum	Al	μ/L	TBD	In laboratory	Quarterly
Lead	Pb	μ/L	TBD	In laboratory	Quarterly
Cadmium	Cd	μ/L	TBD	In laboratory	Quarterly
Magnesium	Mg	μ/L	TBD	In laboratory	Quarterly
Arsenic	Ar	μ/L	TBD	In laboratory	Quarterly
Chrome	Cr	μ/L	TBD	In laboratory	Quarterly
Mercury	Hg	μ/L	TBD	In laboratory	Quarterly
Nickel	Ni	μ/L	TBD	In laboratory	Quarterly
Zinc	Zn	μ/L	TBD	In laboratory	Quarterly
Copper	Cu	μ/L	TBD	In laboratory	Quarterly

Table 21: Monitoring parameters

Sampling efforts will be adjusted based on required frequency. In the post-inundation scenario, water quality measurements will be re-defined to incorporate depths. Sampling will be carried out by DHP for physical parameters in situ and for chemical parameters at a laboratory to be defined. Circle test to ensure quality will be conducted.



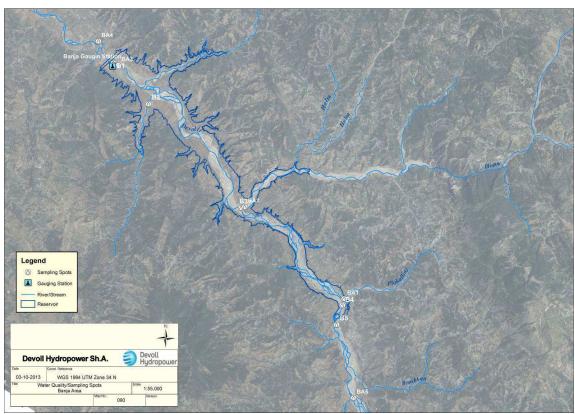


Figure 18: Sampling Spots and Gauging Stations in Banja



Figure 19: Sampling Spots and Gauging Stations in Kokel



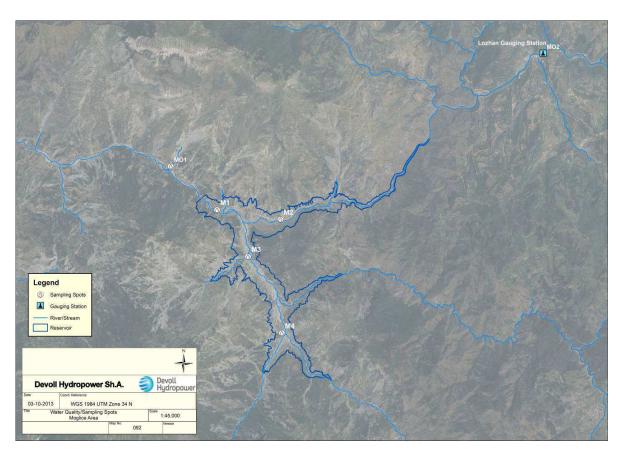


Figure 21: Sampling Spots and Gauging Stations in Moglice

## 5.7.1.1 Aquatic ecology monitoring

A monitoring program will be established by trying to identify the existing and succession trends in the aquatic ecological environment in relevant parts (including downstream) of the catchment area during construction and operation phase. A baseline has been established as part of the ESIA. Quarterly and monthly sampling with qualitative and quantitate (where relevant) methods will be established on phytoplankton, zooplankton, benthos and fish - in order to get reliable time series that also accounts for natural seasonal variations. Same sampling sites as for water quality will be used and after impoundment sampling at varies water depth in the reservoir will be taken. Further will sampling sites downstream Banja dam be established towards Thana reservoir.

The monitoring program aims to assess current situations and new trends in species composition and invasive species (if any). A yearly aquatic ecology report will be developed by third party that assesses possible impacts the different HPPs have had on the ecosystems and suggest mitigation if possible.



Parame ter	Sampling Method	Unit	Laboratory Method	Location	Frequency
Phytopl ankton	Plankton net	Qualitative only	Microscope counting	In laboratory	Monthly (summer)
Zooplan kton	Zooplankton net	Qualitative only	Microscope counting	In laboratory	Monthly (summer)
Bentic Fauna	Kick.grab and hand net	Semi – quantitative	Catch per unit effort	In situ & lab.	Quarterly
Fish Fauna	Gil net, trap, electro fishing	Qualitative and Quantitative	Catch per unit effort	In situ	Quarterly
Macrop hytes	Collection by hand	Qualitative only	-	In situ	Annual

#### 5.7.1.1.1 Terrestrial Flora and Fauna observation

Annual investigations and observations on terrestrial flora and fauna will be conducted. This will not be done by a frequent sampling program but will be based on seasonal field visits and be further based on existing information and observations done by environmental authorities and people with extensive local knowledge from relevant localities. An annual assessment will be prepared by a skilled third party entity. Trends and project impacts will be reported and mitigation action suggested if feasible.

## 5.7.2 Sewage and Wastewater Management

#### 5.7.2.1 Baseline

Urban development of the near project area has resulted in an increased surface being occupied by building facilities and an increase in the discharge flows of sewage and wastewater as a result of population growth and growing commercial establishments. Consequently, the current sewage systems are not able to manage the present flows in an effective manner. Information from the ESIA indicates that the water quality in the basin is generally good and in compliance with EU regulations regarding drinking water quality and waste water discharge. The ESIA points out that no measures are needed to reduce impact of pollutant loads from either waste water and/or leachate leaking from industrial sites such as abandoned mines and buried waste. At the same time, there are potentially adverse effects due to the attenuation capacity in the receiving water bodies. These statements still have to be confirmed with additional studies to supplement with a more thorough baseline and a feasibility study prior to any impacts.

A sewage system was built prior to the 90s and today the system is not fully sufficient and not being maintained properly in Gramsh. Likewise, in many rural areas sewage collection is non-existent and septic tanks, in most of the cases are not properly built. In Gramsh, town wastewater is collected by gravity at the north-western part of the town, where discharge is then carried by gravity into Devoll River without any treatment.

The Devoll River Upstream Moglice is a highly urbanized area with existing sewage and wastewater



treatment facilities. To date, no indication of water contamination from these locations is expected. Specifically, the Korce region has a fast growing economy with a lot of industrial potential to be developed further in the future. This area is also used as the main collector to drain the arable land and also collect the urban water.

As for village communities around the future reservoirs, none are connected to a sewage network so the wastewater is discharged directly along road channels or into nearby streams, or in some cases private septic tanks. Only Cerruje and Pishaj villages are connected to a sewage network, but even then the main wastewater discharge still ends up in nearby streams untreated.

## 5.7.2.2 Scope & Activities

The overall goals of the sewage and wastewater treatment programs is to reduce impacts on water quality in the planned reservoirs by interventions that ensure water quality issues are avoided and efficiently mitigated so that the reservoir maintains acceptable water quality in both the short term and the long term. In its effort to comply with national and international standards, DHP is committed to contribute to the improvement in this field in the event of a negative project impact. In the event of a negative impact, this will be based on serious commitment of the local and national authorities to both assist in finding the most appropriate solutions as well as contribute and accept responsibility and accountability for the continuation (i.e. future financing, operations and maintenance) of any action taken to ensure sustainability. This will be carried out through the following actions:

- · Carry out a full assessment of the current system within the Devoll catchment area
- In the event of negative impacts, access the proposed technologies for wastewater treatment and make recommendations for optimal solutions (taking into account the health indicators);
- Assist in identifying partners for the implementation of sewer system rehabilitation and collaborate with farmers to improve existing septic tanks or setup small networks.
- Carry out awareness programs for villagers, authorities and industries and increase community health awareness;
- Monitoring and Evaluation.

## 5.7.2.3 Program Specific Performance Indicators

- Reduction in amount of total phosphorous and total nitrogen in addition to a decrease in biological oxygen demand and suspended solids to the recipient.
- Quantity of Thermotolerant coliform bacteria (TCB) and total organic compounds meeting internationally accepted standards.
- % of communities with reduced sewage overflows in their communities.
- % of sewage systems adequately operated and maintained.
- Increase in HHs with sewage treatment



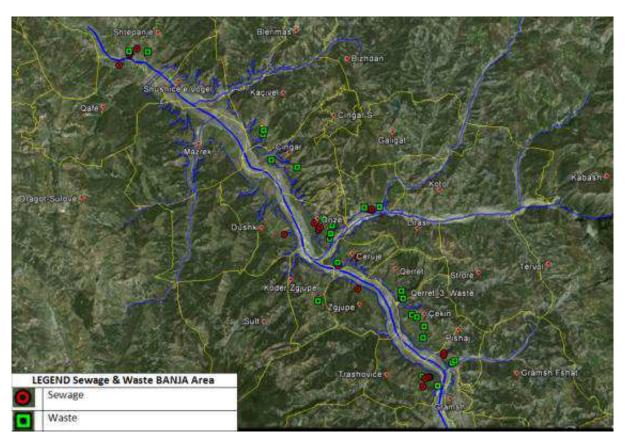


Figure 20: Sewage and waste dumping areas (Banja)

## 5.8 Waste Management

## 5.8.1 Baseline

There are no appropriate solid waste management systems in the Devoll Valley. Waste is collected at designated disposal sites, which are simple dumpsites. In the project area (excluding Korce which has an organized collection point), the remainder, along with Gramsh town and village waste, is usually tipped indiscriminately at the nearest available site including along roadsides, down riverbanks and onto open land in built-up areas, irrespective of type.

In Gramsh, collected waste is dumped by the river bank downstream of Gramsh (northwest of town). Villages are reportedly not covered by any municipal waste management service, and consequently waste is dumped on any available site in the villages or nearby localities. Also illegal dumping of construction waste has created additional pressure on the environment. It is not uncommon for waste to be dumped along the river bed, and as it is not removed and it takes a long time to degrade and the riverbed is affected for extended amounts of time. A portion of the waste is washed away during high flows of the Devoll River.

The Albanian Government is strongly committed to implement all the legal bases according to



European Commission recommendation. The law No. 10463, D. 22/09/2011 is in compliance with European Commission directive 2008/98/KE and for this reason the European Commission recommendations will be considered as the basis for the long term approach into this process.

## 5.8.2 Scope & Activities

DHP understands the necessity to address the waste situation and lack of waste management plans and activities in close cooperation with both the communities and the governmental authorities. This will ensure the protection of DHP assets and at the same time maintain the landscape and water quality (river, groundwater and reservoirs).

Waste clearance interventions are planned for main urban areas and the surrounding rural areas to minimize the impact on water quality and environment. There is a clearly defined need for the cleaning of waste and debris as a separate activity prior to first filling of reservoirs. While this will be carried out by DHP, the aim is to have intensive participation of the community and stakeholders.

Further assistance may be provided based on serious commitment of the local and national authorities to both, assist in finding the most appropriate solutions as well as contribute and accept responsibility and accountability for the continuation (i.e. future financing, operations and maintenance) of any action taken to ensure sustainability. A strong collaboration with central / local government and related agencies has to be established and best practices demonstrated to local industries.

Investigation of potential hazardous sites will be done in collaboration with all authorities and suspected sites will be further investigated to decide on mitigation measures. A study carried out by a third part has to be conducted on a case by case basis.

## Other activities include:

- Carry out a full assessment of the current waste management situation and propose alternatives and recommendations to be implemented for the immediate and long term programs.
- Assist in identifying partners for the implementation of the waste management system.
- Support and work with local governments and other local beneficiaries for the preparation
  of participatory urban (village) strategic plans on waste management including the
  establishment of a land fill and/or transfer station. This will include collection points and
  removal at the village level for waste disposal.
- Strengthen the capacity of the environmental authorities regarding regional and local waste management; this will include awareness programs for villagers, authorities and industries;
- Support and facilitate locally initiated short-term risk reduction measures at the sites;
- Monitoring and Evaluation.

#### 5.8.3 Program Specific Performance Indicators

- Number of households participating in an organized waste collection system.
- Number of waste collection points established;
- Number of garbage bins per population;
- Area of cleaned illegal dumpsites;
- m<sup>3</sup> or tons of solid waste collected and deposited at the local landfill or transit station;
- local regulations/plans/guidelines/laws issued in Q3 2013 onwards.



## 5.9 Forestry program

#### 5.9.1 Baseline

Land degradation and erosion have been identified as major issues for the Devoll Valley. Land subjected to uncontrolled illegal felling of timber and grazing is the primary reason for the degradation of surrounding areas which has led to deforestation. Unmanaged grazing denudes the land of essential vegetation which functions to keep soil intact and reduce erosion.

The afforestation project will be implemented based on the Albanian Forestry Law No. 4/2013, dated 31/01/2013, on communal forestland and pastureland owned by the GoA but given for communal use via usufruct right to each commune. Thus at present much of the communal pastures and forest are managed in cooperation with the communes, farmers often graze their livestock collectively, especially on the high pastures and this is organized informally at village levels.

The law requires DHP to deforest a total area of 1,421.39 ha. that belong to forestry and pasture economy of Gostimë - Koprrik, Mollas, Galigat - Strorë, Gramsh - Vinë, Vidhan - Skënderbegas, Darëzezë - Sult and Dushku i Bulçarit of Elbasan district, also Lavdar - Opar, Voskopojë, Lozhan and Moglicë of Korca district, to be removed from the forestry and pasture national register and form national forestry cadaster. It also requires that within 3 years from the date that the law has come into force, has to reforest, an area of 1,347.80 ha of forest and improve an area of 73.6ha of pasture.

By this law DHP has no active role in deciding the parcels and zones to be reforested. Discussion with the responsible Ministries to detail steps and procedures for the implementation are underway. DHP is in the process of preparing a study with priority areas for social support and erosion control prior to the final decisions made on parcels, type of trees and implementation schedule. This study will include detailed afforestation and forestry management plans including actions to assist in mitigating both environmental issues as well as social considerations to contribute to increasing local incomes through the planting of productive trees within the project area.

## 5.9.2 Scope & Activities

In line with the GoA environmental requirements, this is support towards the development of a detailed forestry management and implementation plan that will be carried out by a DHP in coordination with governmental authorities. To ensure survival rate of trees and handover to the GoA, this activity is planned to last at least 3 years from the finalization of the afforestation.

The Forestry Program has the following goals:

- Reservoir clearance will be carried out prior to reservoir filling in compliance with Albanian legislation.
- Carry out a full assessment of the current forestry situation and propose alternatives and recommendations to be implemented.
- Implement afforestation in selected areas that is required to replace impacts on forest
  caused by the Devoll Hydropower Project (this may include the investigation of potential
  partners for the implementation of the forestry program).
- Support and work with local governments and other local beneficiaries for the preparation of strategic plans.



- Strengthen the capacity of the environmental authorities regarding forest management, this
  will include awareness programs for villagers, authorities and industries;
- Develop synergies with other ESM Units such as orchard development in forest areas.
- Facilitate for increased slope stability and the reduction in soil erosion around the reservoir buffer and vulnerable areas with the possibility of improving scenic landscapes in the river slopes.
- Ensure that there is a net increase in forest cover and thus greening of the project area and facilitating for a favorable ecological succession.
- · Supervision, monitoring, and evaluation.

## 5.9.3 Program Specific Performance Indicators

- Total surface of land (ha) and biomass de/afforested
- Types and number of trees planted:
- Survival rate prior to final handover (1,3 and 5 years)
- Number of local people employed;
- · Estimated production potential / year of newly established forest
- Estimated carbon sequestration in new forest.

#### 5.10 The Downstream Program

#### 5.10.1 Baseline

For the last ~25 years the floods downstream of Banja has been regulated by the 50 m. high cofferdam that was built in order to cater for the construction of the main Banja dam. The top of the cofferdam is at about level 158 masl. giving a reservoir capacity of about 200 million m³ before overtopping. The release of water downstream of Banja is determined by the capacity of the bottom outlet and the headrace diversion channel. In flood periods a reservoir is established upstream the dam and the outflow has not been above 250-300 m³/s.

To date, the operational regime has not been finally decided. There are a number of well recognized methods for assessing environmental flow regimes and there is an increasing understanding that such flows should be released to meet targeted goals of ecological and social benefits. This may vary through the lifetime of the project.

Construction of Banja dam and Moglice dam will change the flow regime in Devoll river. Most of the floods will be accumulated in the reservoirs, and the river flow will be determined by the operation of the power plants. The design of the spillways are based on that the highest regulated water level (HRWL) shall not be exceeded even during a 1,000 year flood.

The preliminary DHP design presented an increased risk of floods events downstream of Banja which would have caused social as well as environmental impacts if not appropriately mitigated. It is currently planned to mitigate this through operations planning for better use of the reserved buffer in the reservoirs during flood periods. Further agreements need to be settled with relevant GoA authorities. While such a restriction would reduce the power production; this is acceptable compared to the E&S implications.

No socio-economic baseline has been carried out to identify the potential effects of increased water



levels on the local production capacities for all HPPs. This will be included in future planning processes.

## 5.10.2 Section Moglicë to Kokël (downstream Moglice):

The proposal is that the minimum flow release to be set at 1.0 m³/sec, with the possibility to later consider seasonal variations to this release figure. This means that the river reach below Moglicë Dam will always have a discharge of at least 1 m³/sec increasing to about 1.5 m³/sec by the time it enters Kokël reservoir. These flows are similar to observed 1-day and 7-day minimum flows.

## 5.10.3 Section Kokël to Banja reservoir (downstream Kokël):

The proposal that the minimum flow release to be set at 1.0 m³/sec, with the possibility to later consider seasonal variations to this release figure. This means that the river reach below Kokël Dam will, during off-peak/shut-down periods, always have a discharge of at least 1 m³/sec increasing to about 1.5 m³/sec at the Vërçës confluence and by the time it reaches Tomorricë River it will exhibit a minimum flow of the order of 2 - 3 m³/sec. These flows are of the order of double the observed 1- day and 7-day minimum flows.

## 5.10.4 Downstream of Banja

The Devoll River will not be dewatered in the normal sense downstream of Banja Dam, but during peak operation and plant maintenance a minimum volume of water will be released from the reservoir and into the river bed and canals downstream. The CA requires that a release of a minimum of 2.0 m³/s will be maintained when the main turbines are out of operation. This release is higher than the observed 1-day and 7-day minimum flows and about 50% of 1-day and 7-day average flows. Preliminary plans were set to meet the minimum CA requirement, however a small turbine is now planned to be installed to exploit the power that will be available with releases which are planned to be at least double the CA minimum requirement. This has been done to meet the social demands (agriculture/irrigation) on downstream stretches and at the same time contribute to more favorable environmental (aquatic) benefits.

Availability of water for irrigation downstream Banja, to Thanë Reservoir, will be improved by the hydropower operation compared to the current situation. An operation protocol between the Devoll Hydropower Project and the Regional Drainage Boards and Ministry of Agriculture is needed to avoid problems of the diversion of water to the Thanë Reservoir (sediment flushing, unscheduled operation interruptions, etc.) and are planned prior to reservoir impoundment.

## 5.10.5 Scope & Activities

To further monitor the possible effects downstream and suggest updates on mitigation measures according to latest observations/studies.

- Flood zone mapping downstream of Banja Dam corresponding to the different operational levels Q<sub>5</sub>, Q<sub>10</sub>, Q<sub>50</sub>, Q<sub>100</sub>, Q<sub>200</sub>, Q<sub>500</sub> and Q<sub>1000</sub>.
- Impact predictions to the above mentioned flooding levels.
- Assess impacts on local population and carry out consultation and mitigation measures for impacted communities / households, if any. This may include compensatory measures for land acquisition following similar principles under the resettlement program above.



- Monitor that adequate water and sediments releases are done according to agreed quantities.
- Ensure that the needed irrigation water is provided following the CA requirements and other DHP agreements with GoA.
- Monitor aquatic ecology downstream of each HPP and assess possible project impacts.
- Public announcement system and awareness campaigns on increased water releases in line with the social development program above.

## 5.11 Environmental conditions for the general construction activities

The Project's Environmental Management and Action Plan (EMAP) for HSE activities is based on best international practice and seek adherence to the IFC Performance Standards, adopted by DHP. Organization, evaluation of risks and impacts, monitoring, reporting, and adaptive management are all important elements of the DHP HSE programs including those that are handed over to the others for implementation (ie. Owners Engineer and Contractors). Requirements for some of these areas, for example training, are specified in the given sub-plans as attachments to each contract document.

A total of 10 framework sub-plans are prepared for main civil works contract, which shall be applied during the construction phase. Furthermore, it is an overriding requirement that the outlined EMAP shall comply with the requirements in the Environmental Impact Assessment (EIA). The Environmental Management sub-plans and the requirements in the EIA shall be incorporated into the Contractor's health, safety and environment (HSE) program.

#### The sub-plans are:

- Erosion Control
- Spoil Disposal
- Quarry and Construction Layout
- Chemical Management
- Emergency Response and Hazardous Materials
- Emissions and Dust Control
- Noise Control
- Vegetation Clearing
- Waste Management
- Construction Camp

Environmental related construction activities are under the responsibility of DHP HSE in cooperation with the Owner's Engineer. Cross cutting issues will be dealt with on a case by case basis as required.

## **5.11.1 Program Specific Performance Indicators:**

To ensure that contractors have and follow adequate, accurate, and objective evaluation, presentation and finds proper feasible measures to mitigate the issues. As mentioned above, this will be monitored by DHP HSE.



## 6. GRIEVANCE REDRESS MECHANISM

DHP has established a Grievance Redress Mechanism (GRM). This is to ensure that anyone with a complaint or concern about the DHP Project activities can tell us and get feedback from us on how the company will address this concern or issue. The procedure applies to past and present project activities. The below figure indicates the DHP GRM process.

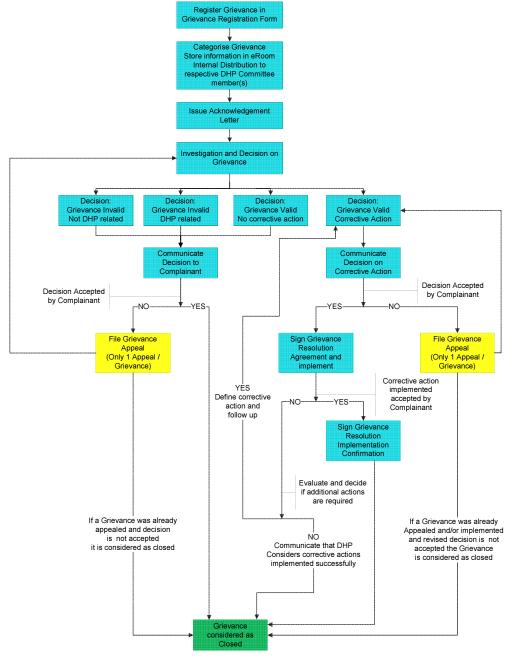


Figure 21: DHP Project Grievance Redress Mechanism (GRM)



The objective of this Grievance Redress Mechanism (GRM) is to ensure that Project Affected Households (PAH) with a complaint or concern about the project can freely communicate it to Devoll Hydropower Sh.A. (DHP) and get feedback on how the concern or complaint will be addressed. It is important in this context to note that grievance mechanisms are increasingly important for projects where ongoing risks or adverse impacts are anticipated. They serve as a way to meet requirements, prevent and address community or individual concerns, reduce risk, and assist larger processes that create positive social change.

This mechanism is established recognizing the importance of accountability and that the concerns and complaints of project affected households and other stakeholders should be addressed in a manner that is fair, objective and constructive (www.ifc.org) and the management of DHP stays informed and involved so that decisive action can be taken when needed to avoid escalation of disputes. The DHP GRM reviews and adjudicates upon grievances submitted by any individual or group, through a transparent mechanism involving all actors concerned. In this context, all parties may utilize technical specialists or witnesses at grievance investigations to substantiate claims.

The GRM should not be thought of as a substitute for other DHP's processes (such as Resettlement, Land Access, etc.) or vice-versa. It is a complementary process and shall be in support to other DHP processes.



## **ANNEX 1**

# Guiding Principles and Entitlement Matrix for the Devoll Hydropower Project (DHP)

# **Purpose**

These Guiding Principles and Entitlement Matrix outline DHP's commitments to Project Affected Persons (PAPs) in relation to mitigating project impacts and promoting project development opportunities in the Devoll Valley. These measures listed here in the matrix will be carried out by DHP and relevant Government of Albania authorities.

## References

- DHP Sustainability Policy
- International Finance Corporation (IFC) guidelines and standards

# Devoll Hydropower Project Guiding Principles

- Project impacts shall be avoided or minimized wherever possible by exploring viable alternatives in design and location.
- Full assessments shall be conducted to ensure all impacts are identified and mitigated.
- Project Affected People (PAHs) shall be compensated and resettled in order to maintain and/or improve their standard of living, including access to community services and resources
- Land acquisition and resettlement shall be planned and implemented to cause least possible amount of social, cultural and economic disruption.
- All measures shall, as far as possible within reasonable costs and efforts, be implemented without detriment to the environment.
- Special measures shall be incorporated to protect socially and economically vulnerable groups, i.e. groups that cannot for various reasons participate in restoration programs.
- All persons residing within the areas directly impacted by the project shall be considered as PAHs
  and will be entitled to compensation and resettlement if the impact influences their residences and
  livelihoods negatively.
- The previous level of community services and resources for impacted communities shall be maintained and/or improved after compensation and resettlement.
- The resettlement programs shall be planned and implemented with the consent and agreement of the affected people through a participatory involvement process.
- All PAHs will have access to effective mechanisms for hearing and resolving grievances during the implementation of compensation and resettlement programs.
- DHP will monitor implementation activities in the Devoll Valley based on sustainable development targets.



# Entitlement Matrix for Resettlement and Compensation

Issue	Compensation and Mitigation Measures
A – Loss of residence (house or dwelling)	<ul> <li>Provide funds to the Government of Albania for expropriation payments for houses and dwellings based on government rates</li> <li>Provide additional materials and technical support for people to be relocated in the Devoll Valley to ensure at least the same standard of previous dwelling</li> <li>Provide transport to new sites within the Devoll Valley (belongings, materials and moveable objects)</li> </ul>
B – Loss of other structures	Replace non-moveable structures at cost or provide new materials for rebuilding if PAHs remain in the Devoll valley area
C – Loss of residential land	<ul> <li>Provide funds to the Government of Albania for expropriation payments for loss of residential land based on government rates</li> <li>Provide assistance to PAHs to secure suitable residential land in consultation with GoA,</li> </ul>
D – Loss of agricultural land (owner of land)	<ul> <li>Provide funds to the Government of Albania for expropriation payments for loss of agricultural land based on government rates</li> <li>Identify and develop new land areas for agricultural production where feasible for redistribution to those severely impacted by the loss of land (households with a loss of production &gt;50% and Resettlers) in cooperation with communities, households and local authorities</li> </ul>
E – Loss of agricultural production (user of land)	<ul> <li>The following Livelihood support packages will be offered based on the assessment of production loss:</li> <li>1) Greenhouse production systems</li> <li>2) Fruit trees</li> <li>3) Livestock enhancements</li> <li>4) Intensification of crop production</li> <li>5) Business development</li> <li>6) Other alternatives to be agreed by DHP and PAHs</li> <li>Special provisions will be made for vulnerable households to ensure participation in livelihood restoration programs</li> <li>Technical advice for a minimum of three years</li> </ul>
F – Temporary Loss of Production	Cash compensation for the loss of production and restoration of lands outside of the expropriated areas caused by project construction activities



Issue	Compensation and Mitigation Measures
G – Loss of common property resources	Facilitate alternative access to adequate forests, grazing land, water and other natural resources where feasible
H – Permanent loss of land used for commercial purposes	Support in identifying replacement land with the location acceptable to PAH in order to continue viable commercial activities
I – Loss of physical cultural resources	Provide support for ceremonies and acceptable arrangements for relocation of moveable items and re-establishment at new site agreed with PAHs
	Replacement of shrines and other religious structures of at least the same value and acceptable to the community within the Devoll Valley
J – Loss of community infrastructure	Assist Government of Albania and coordinate with PAHs in the replacement of all impacted community infrastructure of at least the same value and function or improvement of existing infrastructure, including water supply systems, access roads and electrical connections if required
K – Loss of educational facilities	Assist Government of Albania and coordinate with PAHs in the replace of impacted schools or upgrading of existing village facilities within an acceptable distance from households
	Provide equipment, materials and furniture for new school buildings as required
L – Regional programs	Improve health services through health centers, equipment and training of health staff
	Improve education services through schools, transport, training, skills development and scholarship programs
	Enhance agricultural production, farmer training programs and marketing of local produce
M – Irrigation Development	Study and design potential irrigation development schemes downstream of Banja dam in cooperation with other parties, including the Government of Albania
	Support for development of downstream irrigation systems or other development alternatives in cooperation with other parties, including the Government of Albania
N – Grievance Process	All households will have free and direct access to a grievance redress mechanism for complaints or concerns about the project