The Gold Standard
Premium quality carbon credits

# GOLD STANDARD PASSPORT

## GOLD STANDARD PASSPORT

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## SECTION A. Project Title

ZALA HEPP - Turkey

## SECTION B. Project description

Zala HEPP project will be developed by Ahmet Hakan Elektrik Üretim A.Ş (Ahmet Hakan Electricity Production INC.) at Kastamonu Province, Araç District, at the Blacksea Region. Within the scope of the project, Zala Weir will be constructed on Araç Creek and linked to Zala power house with an installed capacity of 5.184 MWe.[1]

Based on annual total electricity generation amount, 18,606 MWh, Zala HEPP project will result in a $CO_{2\text{-eq}}$ reduction of 10,246 tons annually due to use of renewable resources. The commissioning date is expected on 01/07/2013. The Ahmet Hakan Elektrik Üretim A.Ş was expected to be financially feasible by means of issuing obtained VERs by project activity.

The only purpose of the proposed project is to produce energy. The generated electricity will be connected to national interconnected system for public welfare.

A weir (auxiliary units: water intake structure, scouring sluice, sedimentation basin, fish passage), derivation structure, transmission channel, head pond, penstock and a power house are the units of the proposed project.

Within the project activity, the water taken by virtue of Zala Weir (water intake structure) will be conveyed to the head pond channel to avoid flow fluctuations through the transmission and then conveyed to the power house by means of the penstock. A derivation structure will be established on Cevizlik Creek which is a small tributary of Araç Creek. By means of derivation structure, a portion of the flow of Cevizlik Creek will be diverted to transmission channel in order to support the coming flow to turbines. The turbines convert the potential energy of water to mechanical energy. Then, the turbines turn up the generator and the generator produce electrical energy by converting the mechanical energy to electrical energy; the water passed from the turbines in the power house will be released back to Araç Creek without any alteration to its quality and quantity.

An assessment was conducted within the scope of EIA[2] to identify the impact of noise observed from the construction activities as per “The Regulation on The Assessment and Management of Ambient Noise” which defines the limit value for construction activity as 70 dBA[3]. The noise pressure levels of selected construction areas (ie: weir area, transmission channel area, power house area) were calculated by using the noise levels of to be used heavy vehicles[4] during construction. The noise levels of the specific construction areas were detected lower than the limit value with respect to the distance in between.

For construction phase; an assessment was conducted within the scope of EIA[5] to identify the amount of to be formed PM and dust. The limit values of PM and dust were specified as per the “Regulation on the Control of Industrial Air Pollution” and “Regulation on the Assessment and Management of Air Quality” as for short term: 140

[1] Zala HEPP, EIA Report
[2] Zala HEPP, EIA Report, Section V.1.15 and Annex 16
[3] decibel A-weighting, an environmental noise measurement
[4] Due to the nature of the assessment, it was be assumed that, all heavy vehicles will be used at the same time. However, it is not possible in reality. Hence, the real noise level will be lower than the calculated ones.
[5] Zala HEPP, EIA Report, section V.1.8 and Annex 15

µg/m³ and 390 mg/m²/day and for long term: 78 µg/m³ and 210 mg/m²/day respectively for the year 2013.[6]

It is concluded that, the expected and calculated PM and dust formation will not exceed the regulated limit values.

In addition to that for mitigate the formation of dust and PM[7];

- Care to empting/fulfilling of trucks without blowing about,
- Speed restrictions to heavy vehicles,
- Spraying activities of roads during construction

No explosive material will be used up during construction or operation phases of project activity.[8]

Another assessment regarding amount of excavated soil was conducted in the EIA[9]. The excavation will be stored temporarily at the formerly specified and permitted storage area.[10] The excavation and top soil will be stored separately at those areas. Then, the excavation will be reused for landfilling, backfilling, road repair and service road building purposes.

It was indicated that, the 20% of the excavated material will be topsoil (vegetable soil) and stored topsoil will be reused for landscaping and reclamation purposes. The residual excavation (if any) will be disposed to solid waste disposal site by the permission of Araç Municipality.[11]

The excavation shall not be poured to river bed, which is strictly forbidden by laws. The project activity will be complied with the "Regulation on the Control of Excavation, Construction and Ruins Waste".[12]

The completion time of the project -total construction time- will be nearly 2 years[13].

The expected operational lifetime of the project is estimated at about 46 years 3 months 11 days.[14]

Small HEPP projects are among the projects with minimal impact on environment and local people. No environmentally harmful emission is anticipated. All regulations regarding the protection of air quality will be followed during the construction. Any solid and liquid wastes formed during the construction and operation of the plant will be collected and discharged in accordance with the "Regulations on the Control of Solid Wastes" and "Regulation on the Control of Water Pollution". [15]

Furthermore, along the transmission channel, some bridges will be constructed to maintain the access of local people and other ecosystem components. All precautions will be provided for protection. During the construction, the transportation shall not be disrupted. In case of any damage to the existing roads or infrastructure despite of the precautions and mitigation measures, the damaged roads will be repaired and damage to infrastructure will be covered by the project owner.

The generated electricity will be connected to national interconnected system by Araç Transformer Station.[16]

The specified amount of flow shall and will be released from weir structure for sustainability. The ecological flow amount and water rights of downstream users are the key concerns, releasing of those after weir structure

[6] The specified limit values in the regulation have a descending order for the subsequent years: 2008-2014 as transition period.
[7] Zala HEPP, EIA Report, page 127
[8] Zala HEPP, EIA Report, page 100
[9] Zala HEPP, EIA Report, section V.1.1 and page 128,129
[10] Zala HEPP, EIA Report, page 120
[11] Zala HEPP, EIA Report, page 99
[12] Zala HEPP, EIA Report, page 100
[13] Zala HEPP, EIA Report, page 25
[14] See PDD Section C.1.2 for detailed information
[15] Zala HEPP, EIA Report, page 160,161
[16] Zala HEPP, EIA Report, page 2

preserve the ecological life/habitat and provide concord with downstream users and stakeholders respectively. The released water to creek will be continuously measured by an online flow meter at where it is positioned by the 23rd Regional Directorate of DSI[17] and in conjunction with online system of the DSI.[18]

Furthermore, for the project activity, the minimum flow shall also be provided from the derivation structure to Cevizlik Creek.

**Table 1: The Amount of Minimum (Ecological) Flow Released After Weir Structure during Wet and Dry Seasons[19]**

| | Minimum (ecological) flow | |
|---|---|---|
| **Months** | **Zala Weir** | **Derivation Structure** |
| **January** | 330 l/sec | 350 l/sec |
| **February** | 330 l/sec | 350 l/sec |
| **March** | 1043 l/sec | 1100 l/sec |
| **April** | 1043 l/sec | 1100 l/sec |
| **May** | 1043 l/sec | 1100 l/sec |
| **June** | 330 l/sec | 350 l/sec |
| **July** | 330 l/sec | 350 l/sec |
| **August** | 330 l/sec | 350 l/sec |
| **September** | 330 l/sec | 350 l/sec |
| **October** | 330 l/sec | 350 l/sec |
| **November** | 330 l/sec | 350 l/sec |
| **December** | 330 l/sec | 330 l/sec |

The quantity of downstream users' water rights was determined within the scope of EIA. The **Downstream Users' Water Rights Report**[20] was conducted and specified the water amount that have been using for irrigational purposes, for wells, watermills, or for drinking purposes between the weir and the power house. As per the report, the irrigation area for agriculture between weir and power house is 219.3 ha. Those areas have been irrigated by Kastamonu-Araç 17 Village Irrigation Facility and Araç-Akıncılar-Cevizli-Tatlıca Villages Irrigation Facility. For this reason, an additional amount of irrigation water to be released to river bed is not required.[21]

An assessment was conducted by Black Sea Technical University in order to specify the off-legal wells which mean that they were not opened by DSI or any authority. Therefore, the reliable and safe drawing amounts are not known. The University assessed the site, topographic, water level and etc. to investigate in what degree the project activity will affect the water wells. The assessment concludes that the underground water level increases from the water level of river towards the slopes and the lowest underground level is detected at the connection points of river and underground water level and finally in all cases the underground water feds the Araç Creek. Therefore, any problem on the decrease of water level of wells is not foreseen directly. In this respect, any amount of flow for well will not left from weir structure to creek.

[17] The State Hydraulic Works
[18] Zala HEPP, EIA Report, page 139
[19] Zala HEPP, EIA Report, page 137,138
[20] Zala HEPP, EIA Report, Annex 20
[21] Zala HEPP, EIA Report, page 139

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The project owner committed to take all precautions against the problems by reason of the decrease of water level in wells.[22]

Zala HEPP project was designed without a reservoir. The backwater formed by the way of weir structure is for regulation of coming flow. The area of backwater before the Zala Weir will be 2,000 $m^2$.[23]

The vegetation will be disrupted because of the construction of units. The vegetation at the area is distributed broadly in Turkey. Hence, the disruption can be accepted as tolerable. The mitigation measures will be performed to provide the least disturbance to the vegetation, floral and faunal species and environment.[24]

An endemic species were not determined based on the on-site surveys and studies during the preparation of EIA.[25] The risk is neither for fauna nor for floral species. In order to stimulate the natural flow regime and sustain the fish living, fish passages under the weir structure will be constructed.[26] Besides, fish migration is provided by fish passage[27] which is designed properly to provide the transition of fishes.

A *Social Impact Assessment Report*[28] was conducted by an expert in order to identify the social impacts can be occurred based on the proposed project. The main point of this report was about the concern of local people on reduction in the water flow of Araç Creek. The importance of the water utilization rights was expressed. With respect to the report, the proposed project cause a decrease in the flow of Araç Creek and which may affect the agricultural activities. To sustain the agricultural activities and avoid considering it as a threat by local people, the specified amount of water should be released from weir structure. Moreover, as mentioned above, in July and August, the water will not transmitted to operate the power house. Therefore, the concerns of local people are taken off.

The preference of using the labour force from the vicinity may be helpful to procure acceptance of proposed project.[29]

**Start date of construction:** 23/09/2011 – construction works contract

[22] Zala HEPP, EIA Report, page 138
[23] Zala HEPP, EIA Report, page 136
[24] Zala HEPP, EIA Report, gage 89
[25] Zala HEPP, EIA Report, section IV.2.11, page 79, 80, 89
[26] Zala HEPP, EIA Report, page 132
[27] Zala HEPP, EIA Report, page 137
[28] Zala HEPP, EIA, Annex 18
[29] Zala HEPP, EIA Report, section V.3.1

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**Figure 1: The location of Zala weir structure on Araç Creek, a view from upstream to downstream**

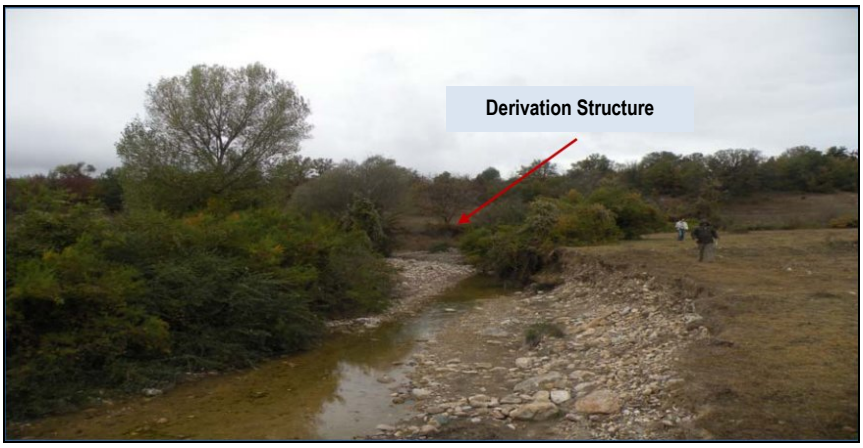


**Figure 2 : The location of the derivation structure on Cevizlidere Creek**

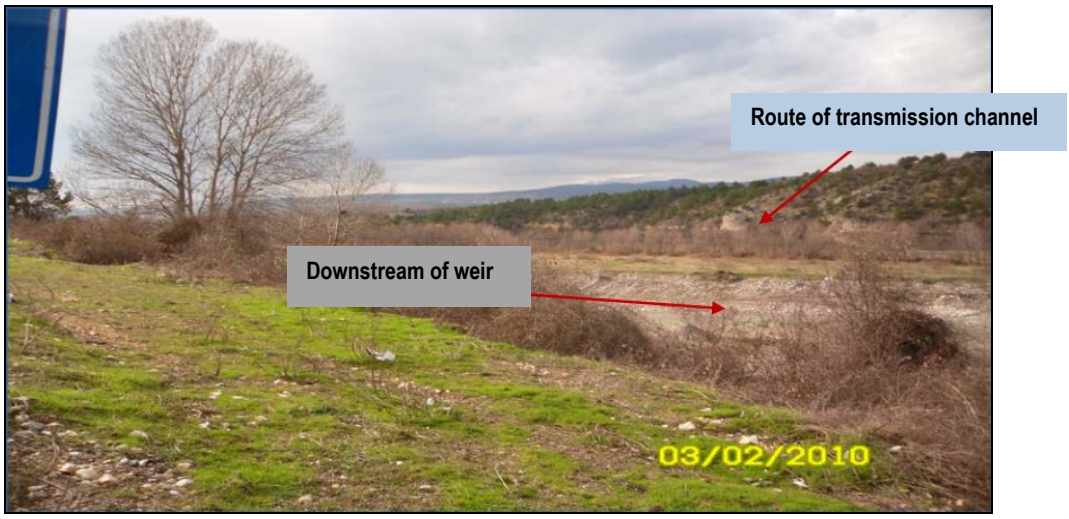


**Figure 3 : The downstream of weir structure and route of transmission channel**

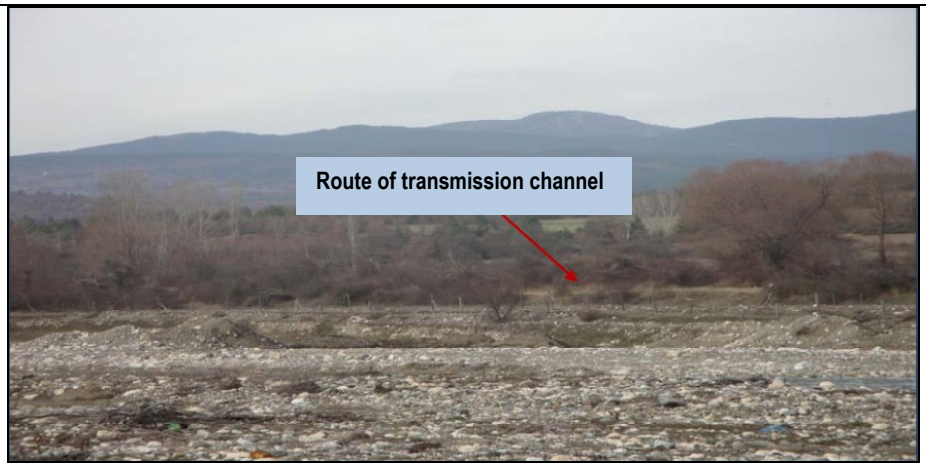


**Figure 4 : The route of transmission channel**

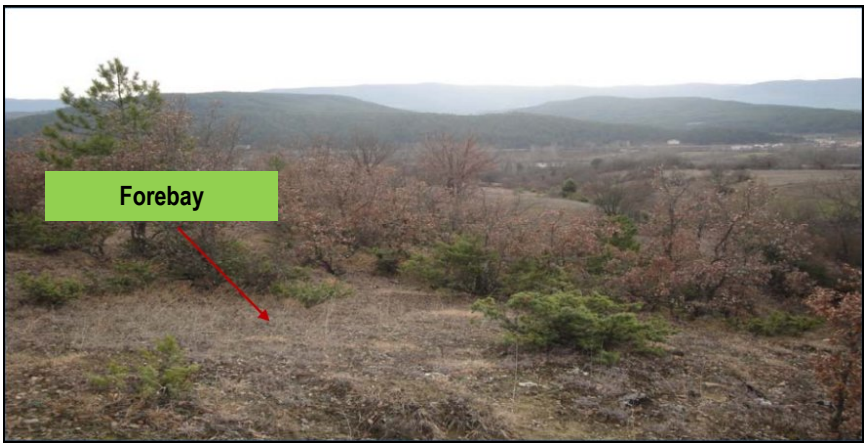


**Figure 5 : The location of the forebay on the project site**


**Figure 6 : A locations of the power house**

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## SECTION C. Proof of project eligibility

### C.1. Scale of the Project

| Project Type | Large | Small |
|---|---|---|
| | ☐ | ☐ |
| | ☐ | ☐ |
| | ☐ | ☐ |
| | ☐ | x |
| | ☐ | ☐ |

| | |
|---|---|
| | ☐ |

### C.2. Host Country

Turkey
The host county Turkey does not have a cap on its GHG emissions.

### C.3. Project Type

| Project type | Yes | No |
|---|---|---|
| Does your project activity classify as a Renewable Energy project? | x | ☐ |
| Does your project activity classify as an End-use Energy Efficiency Improvement project? | ☐ | x |

According to the latest Gold Standard VER Manual for Project Developers, the project falls into the type A.1. - Renewable Energy. The aim of the project is to produce energy as well as to build and operate a hydroelectric electric power plant.

As per Annex C of Gold Standard Toolkit, the project activities which involves hydropower plants with an installed capacity less than or equal to 20 MWe shall be eligible. The proposed project is eligible owing to justify the statement above with 5.184 MWe installed capacity.

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**The Table C-2 of Annex C is discussed below regarding the proposed project characteristics.**

| | | |
|---|---|---|
| **Management Domain** | **Minimum Flow Goal is a dynamic flow regime, which qualitatively simulates the natural hydrological regime** | Minimum flow goal for Zala weir is 1043 l/sec for March, April, May and 330 l/sec for all other months to simulate the downstream natural hydrological regime. And Minimum flow goal for derivation structure is 1100 l/sec for March, April, May and 350 l/sec for all other months. [30]<br>The long average flow, water volume , hydrology, annual alteration within year, optimum habitat of fishes, biological characteristics of river bed, seasonal flow conditions, ecological situation of living organisms and all relevant components of river system will be measured to determine the minimum flow. The Tennant method was used for estimation of minimum flow.<br>In case of a reduction of water flow below the amount of minimum flow due to seasonal conditions, the diversion of flow hence, electricity generation of HEPP is not allowed. |
| | **Minimum flow which guarantees habitat quality and prevents critical oxygen and chemical concentrations** | The minimum flow which guarantees the habitat quality and preserve oxygen and chemical concentration was defined by the experts prepared the Feasibility Study Report.<br>Minimum flow goal for Zala weir is 1043 l/sec for March, April, May and 330 l/sec and minimum flow goal for derivation structure is 1100 l/sec for March, April, May and 350 l/sec for all other months. [31]<br>In case of a reduction of water flow below the amount of minimum flow due to seasonal conditions, the diversion of flow hence, electricity generation of HEPP is not allowed |
| | **No disconnection of lateral rivers** | There is no disconnection of lateral rivers in the project. The lateral rivers contribute to the natural hydrological regime of the water bed between weir and power house. The lateral rivers provide a flow amount which is added to the minimum flow between weir and power house. Hence, the sustainability will be supported. |
| | **Minimum water depth for fish migration during critical periods** | The minimum flow was estimated for months with respect to the ecosystem components and natural flow regime. One of the ecosystem components are fishes which migrates can easily live in the water depth provided by minimum flow. |
| | **Lateral and vertical connectivity (flood plains and groundwater) shall not be substantially disturbed** | The lateral connectivity will resume by fish passage which designed and constructed efficiently. For vertical connectivity, an assessment of Black East University concludes that the ground water level is increase from river water level towards slopes hence the groundwater level will not affected which can be observed from the water level of wells. The lateral and vertical connectivity will not be affected because of the proposed project. Moreover, field survey and feasibility of the project is able to prevent such disturbance to nature. The vertical connectivity is not affected due to proposed project since; there will be no disturbance to vertical linkages with groundwater. The sedimentation will not be permitted, in front of weir structure, the passing of silt to downstream will be provided by the help of scouring sluices. The energy and material are transferred in the hyporheic zone and which ecosystem services are thus provided. In accordance with the diversion of flow to transmission channel and reduction in the Araç Creek's flow, the underground water table may be decreased. However, the hydrology of the project site will not cause this kind of reduction because of the tributaries of river which continues to feed the water table and it result in maintaining the sufficient hydrology with minimum change.<br>The lateral connectivity will be maintained by not disturbing the floodplain as much as possible. The sliding of river side - erosion- into the bed will be prohibited carefully and no levee |

[30] Zala HEPP, EIA Report, page 137,138
[31] Zala HEPP, EIA Report, page 137,138

| | | |
|---|---|---|
| | | construction will be performed which are the main causes of avoiding lateral connectivity. The fish passage enables lateral connectivity as well. All kind of mitigation measures will be performed to mitigate functional losses associated with isolation and an altered hydrograph |
| | **Provides sufficient transport capacity for sediments** | The weir structure has 7 gates and one of the gates will be used for sediment transportation as scouring sluice to avoid accumulation of sediment in the pond.[32] |
| | **Landscape compartments shall not be destroyed** | The vegetation soil will be peeled off during the construction. The excavated soil during construction will be stored at the designated areas. The compression will be done to fasten up the excavation. To protect the soil structure, the excavated soil will be used for filling up purposes and for landscaping. [33] |
| | **Flood plain ecosystems shall not be endangered** | The Flood plain ecosystems will not be endangered by protecting the water bed from excavation. All kind of precautions and measures will be performed to protect the ecosystem. [34] |
| | **Conservation of locally adapted species and ecosystems** | The conversion of lothic habitat to lentic ecosystem will be observed into the still water areas which are formed because of the project. The locally adapted species and ecosystems will not be affected by the project. [35] |
| **Hydro peaking** | **Rate of change of water level should not impair fish and benthic populations** | The minimum flow will be released to river bed during critical periods and this will be monitored by state authorities. Therefore, there shall not be any significant change in water level which can cause impair of fish and benthic populations |
| | **Reduction in water level should not lead to drying of the water course.** | In the scope of the project, storage of significant volume of water is not present. The coming water to plant will be released after the power house with the same quality and quantity. Hence, there will be no reduction in water levels. |
| | **Protective measures if flood plain ecosystems are impaired.** | Protective measure will be taken to reduce the adverse impacts of any flood plain which is not expected due to topography of the region. Moreover, the project has no dam or reservoir and is not expected to have an impact on flood plain ecosystem. |
| | **No isolation of fish and benthic organisms when water level decreases** | The weir will prevent the isolation of fish and organisms by providing a steady minimal flow, even when water level decreases. |
| | **No impairment of spawning habitat for fish** | The fish passage will be constructed under weir to permit fish migration to upstream for spawning issues. Minimum water flow will be maintained during spawning periods as well. |
| **Reservoir management** | **Are there feasible alternatives to reservoir flushing?** | Since the project does not feature any storage volume, unlike the dam reservoirs, a reservoir operation policy cannot be applied to this project. |
| | **Changes in reservoir levels should not impair lateral ecosystems (flood plains, river shores, …)** | Since the project does not feature any storage volume, unlike the dam reservoirs, a reservoir operation policy cannot be applied to this project. |
| | **Connectivity with lateral rivers should not be impaired** | Since the project does not feature any storage volume, unlike the dam reservoirs, a reservoir operation policy cannot be applied to this project. |
| | **Sediment accumulation areas should be used as valuable habitats, where feasible.** | No significant accumulation is expected. |
| | **Special protection of flood plain ecosystems if they are impaired** | The project is not expected to have an impact on flood plain ecosystem. |
| **Sediment Management** | **Sediments have to pass through the power plant.** | The weir structure has 7 gates and one of the gates will be used for sediment transportation as scouring sluice to avoid accumulation of sediment in the pond.[36] |

[32] Zala HEPP, EIA Report, page 132
[33] Zala HEPP, EIA Report, section V.1.1 and page 128,129
[34] Zala HEPP, EIA Report, page 100
[35] Zala HEPP, EIA Report, gage 89
[36] Zala HEPP, EIA Report, page 132

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| | | |
|---|---|---|
| | **No erosion and no accumulation in the river bed below storage dams and water intakes because of a deficit in sediments.** | The project does not constitute any storage volume. |
| | **Sediment transport should sustain morphological structures, which are typical for the river.** | A gate on weir will be used for sediment transportation to protect the morphological structure and existing habitat. |
| | **No accumulation of sediments below dams** | The project does not constitute any storage volume. |
| | **Riverine habitats have to be established.** | Riverine habitats will not be impacted by the project across the downstream and upstream and interior of the river bed. The protective measures will be taken to minimize the negative effects at the area. |
| **Power plant design** | **Protection of animals against injury and death stemming from power plant operations (turbines, canals, water intakes, …)** | All conveyance channels will be protected to prevent injuries. The power house including turbines and other equipment is closed. |
| | **Free fish migration upwards and downwards (as far as technologically feasible)** | The fish passage will be constructed under weir to permit fish migration to upstream for spawning issues. Minimum water flow will be maintained during spawning periods as well. |
| **Social impacts** | **Cultural landscapes** | Cultural Landscapes will not be affected by the project activity since the place of the project is not in a protection area or historical site. |
| | **Human heritage (including protection of special ethnic groups)** | There will not be any social impact on human heritage and way of life. Furthermore, it will help the locals by providing additional employment. |
| | **Preservation of lifestyles** | There will not be any disturbance on human heritage and way of life since the power plant is not close to the settlement area. |
| | **Empowerment of local stakeholders in the decision-making process (about mitigation and compensation of social impacts)** | Local stakeholders will be able to express their opinions about social impacts at stakeholders meetings whereby the project owners would take the proper mitigation measures. They are encouraged to participate in project phases and free to ask questions and discuss their opinions with the project owner. |
| | **Resettlement of local population under similar or better living conditions (than prior to the project)** | There will not be any resettlement due to project activities. |
| | **Build additional social infrastructure, sufficient to cope with population increase (due to migration induced by the project)** | The project will not induce any migration. |
| | **Water quality and fishing losses affecting downstream riverside population** | The downstream water quality will not be affected since within the scope of the project, water will be released continuously. |

| Pre-Announcement | Yes | No |
|---|---|---|
| Was your project previously announced? | ☐ | x |
| The project was not previously announced to be going ahead without the revenues from carbon credits. | | |

## C.4. Greenhouse gas

| **Greenhouse Gas** | |
|---|---|
| Carbon dioxide | x |
| Methane | ☐ |
| Nitrous oxide | ☐ |

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## C.5. Project Registration Type

| Project Registration Type | |
|---|---|
| Regular | x |

| Pre-feasibility assessment | Retroactive projects (T.2.5.1) | Preliminary evaluation (eg: Large Hydro or palm oil-related project) (T.2.5.2) | Rejected by UNFCCC (T2.5.3) |
|---|---|---|---|
| | ☐ | ☐ | ☐ |

## SECTION D. Unique project identification

## D.1. GPS-coordinates of project location

Coordinates of the Project Area

| | Geographic - Decimal Degree | |
|---|---|---|
| **Unit** | Latitude | Longitude |
| Weir | 41,2327838 | 33,3010378 |
| Derivation structure | 41,2413827 | 33,2763507 |
| Head pond | 41,2313514 | 33,2195058 |
| Penstock | 41,2313478 | 33,2199271 |
| Power house | 41,2274229 | 33,220298 |

*Explain given coordinates*

The coordinates to designate each unit are given in geographical format. The complete number of coordinates is tabulated in “Zala and HEPP, EIA Report, Table 5.”

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## D.2. Map


Figure 7: The location of Kastamonu Province, Araç District on Turkey Map

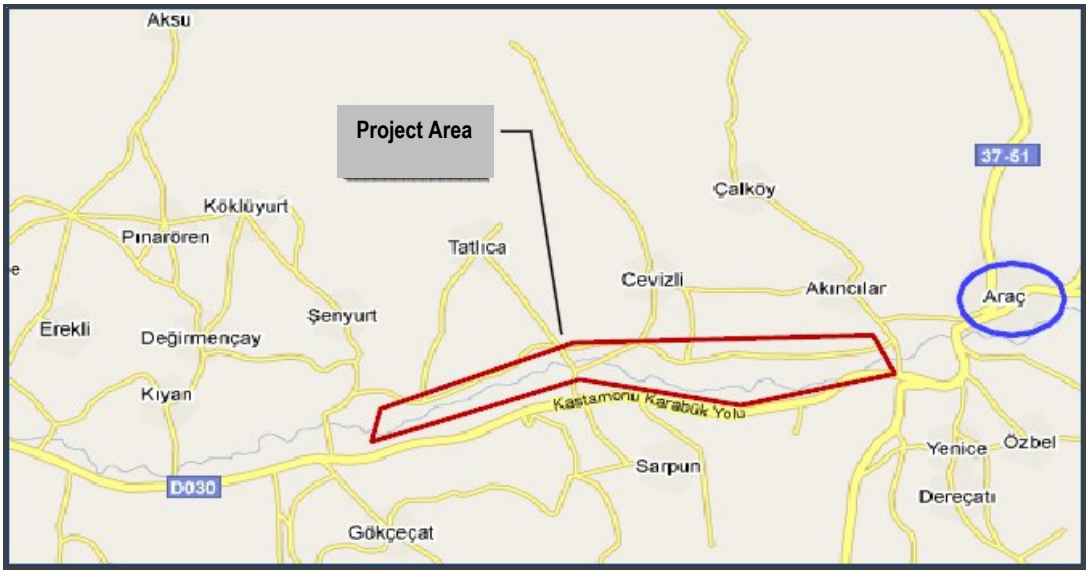


**Figure 8: General Layout of the Project area with proposed units - Satellite View**

## SECTION E. Outcome stakeholder consultation process

### E.1. Assessment of stakeholder comments

| Stakeholder comment | Was comment taken into account (Yes/ No)? | Explanation (Why? How?) |
|---|---|---|
| What is the radius of the pan stock? | Yes | The radius of the pen stock is 2,05 m. |
| What is the amount of water that will be released back to the river? (minimum flow) | Yes | It will be 1,043 $m^3/s$ in the rainy period ( which is %10 of the average of 10 years precipitation) and 0,33 $m^3/s$ for the drought period (which is %10 of the average of 10 years precipitation) |

Based on the stakeholder comments, it is not required to alter the project design. However, project owner was decided to care on supplying workers from vicinity and repair of roads at the vicinity.

The invitation list follows;

| Category code | Organization (if relevant) | Name of invitee | Way of invitation | Date of invitation | Confirmation received? Y/N |
|---|---|---|---|---|---|
| A | Headman of Yenice Village | Halim Gedik | Fax/Mail | 09.07.2010 | Y |
| A | Headman of Samatlar Village | Veli Küçükgüzel | Fax/Mail | 09.07.2010 | Y |
| A | Headman of Kayaboğazı Village | Eşref Taşöz | Fax/Mail | 08.07.2010 | Y |
| A | Headman of İğdir Merkez Village | Serdar Buyurucu | Fax/Mail | 09.07.2010 | Y |
| B | The Municipality of Araç | Mustafa Ayanoğlu | Fax/Mail | 08.07.2010 | Y |

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| | | | | | |
|---|---|---|---|---|---|
| | District | | | | |
| B | The Governor of Kastamonu Province | Mustafa Kara | Fax/Mail | 08.07.2010 | Y |
| B | The Head Office of Araç District | Kemal Kızılkaya | Fax/Mail | 08.07.2010 | Y |
| F | Greenpeace Turkey | Hilal Atıcı | Fax/Mail | 08.07.2010 | Y |
| B | The Grand National Assembly of Turkey | Hakkı Köylü | Fax/Mail | 08.07.2010 | Y |
| B | Directorate of Environment and Forestry of Kastamonu Province | Yaşar Polat | Fax/Mail | 08.07.2010 | Y |
| C | Republic of Turkey Ministry of Environment and Forestry | Mustafa Şahin | Fax/Mail | 08.07.2010 | Y |
| B | The Grand National Assembly of Turkey | Mehmet Serdaroğlu | Fax/Mail | 08.07.2010 | Y |
| B | The Grand National Assembly of Turkey | Hasan Altan | Fax/Mail | 08.07.2010 | Y |
| B | The Grand National Assembly of Turkey | Musa Sıvacıoğlu | Fax/Mail | 08.07.2010 | Y |
| F | Rec Turkey | Sibel Sezer Eralp | Fax/Mail | 08.07.2010 | Y |
| F | WWF Turkey | Tolga Baştak | Fax/Mail | 08.07.2010 | Y |
| E | Gold Standard | Nahla Sabet | Mail | 08.07.2010 | Y |
| F | Mercy Corps | Nancy Lindborg | Mail | 08.07.2010 | Y |
| F | Helio International | Rod Janssen | Mail | 08.07.2010 | Y |

***The Turkish version of individual invitation is given below:***

**The following invitation letter was sent out in Turkish via email/post/fax to the above mentioned stakeholders:**

*Sayın,*

*Kastamonu ili, Araç ilçesinde; 5,76 MW kurulu güce sahip olacak şekilde inşa edilmesi planlanan Ahmet Hakan Elektrik Üretim A.Ş'ye ait Zala Regülâtörü ve Hidroelektrik Enerji Santrali Projesi'nin tanıtımının yapılması, çevresel ve sosyo-ekonomik etkileri hakkında bilgi verilmesi ve projenin karbon emisyonunun azaltılmasına olan katkısı nedeniyle Uluslararası Gold Standart Organizasyonu platformunda kazandığı değer ve bununla ilgili getiriler ile ilgili bilgi vermek ve projeye dair görüş ve önerilerinizi almak üzere 27 Temmuz 2010 tarihinde saat 14.00 de Yenice Köyü, Yenice Köyü İlköğretim Okulu'nda yapılacak olan Paydaş Toplantısı'na teşriflerinizi arz ederim.*

**The English version of individual invitation letter is given below:**

*Dear Madam/Sir,*
*We request you to participate in the Local Stakeholder Consultation Meeting of Zala Weir and Hydroelectric Power Plant Project planned to be constructed in Province of Kastamonu, Araç District with the capacity of 5.76 MW, by Ahmet Hakan Elektrik Üretim A.Ş. The Stakeholder Consultation aims to give out information about Zala Weir and Hydroelectric Power Plant project, its environmental and socio-economic impacts, and its significance in Gold Standards Organization Platform due to the leading reduction in carbon emissions. The meeting will be held on 27 July 2010 at 14.00 p.m in Yenice Village, Yenice Village Primary School. Your Participation will be a pleasure for us.*

# GOLD STANDARD PASSPORT

EN - CEV
Enerji Çevre Yatırımları
ve Danışmanlığı Ltd. Şti.

09.07.2010

**İĞDİR MERKEZ KÖYÜ MUHTARLIĞI**
**SN: SERDAR BUYURUCU**

Kastamonu İli , Araç İlçe'sinde; 5,76 MW kurulu güce sahip olacak şekilde yapılması planlanan Ahmet Hakan Elektrik Üretim A.Ş.'ye ait Zala Regülatörü ve HES Projesi'nin tanıtımının yapılması, çevresel ve sosyo-ekonomik etkileri hakkında bilgi verilmesi ve projenin karbon emisyonunun azaltılmasına olan katkısı nedeniyle Uluslararası Gold Standard platformunda kazandığı değer ve bununla ilgili getiriler ile ilgili bilgi vermek ve projeye dair görüş ve önerilerinizi almak üzere 27 Temmuz 2010 tarihinde saat 14:00 da Yenice Köyü İlköğretim Okulu, Yenice Köyü / Araç / Kastamonu adresinde yapılacak olan Paydaş Toplantısı'na teşriflerinizi arz ederim.

Özge ŞAHİN

www. enerjicevre.com.tr - ensev@enerjicevre.com.tr

Mahatma Gandi Caddesi No : 92/2 06680 G.O.P. - ANKARA Tel : +90 312 447 26 22 (pbx) Fax : +90 312 446 38 10

EN - CEV
Enerji Çevre Yatırımları
ve Danışmanlığı Ltd. Şti.

08.07.2010

**WWF TÜRKİYE**
**DOĞAL HAYATI KORUMA VAKFI**
**SN: TOLGA BAŞTAK**

Kastamonu İli , Araç İlçe'sinde; 5,76 MW kurulu güce sahip olacak şekilde yapılması planlanan Ahmet Hakan Elektrik Üretim A.Ş.'ye ait Zala Regülatörü ve HES Projesi'nin tanıtımının yapılması, çevresel ve sosyo-ekonomik etkileri hakkında bilgi verilmesi ve projenin karbon emisyonunun azaltılmasına olan katkısı nedeniyle Uluslararası Gold Standard platformunda kazandığı değer ve bununla ilgili getiriler ile ilgili bilgi vermek ve projeye dair görüş ve önerilerinizi almak üzere 27 Temmuz 2010 tarihinde saat 14:00 da Yenice Köyü İlköğretim Okulu, Yenice Köyü / Araç / Kastamonu adresinde yapılacak olan Paydaş Toplantısı'na teşriflerinizi arz ederim.

Özge ŞAHİN

www. enerjicevre.com.tr - ensev@enerjicevre.com.tr

Mahatma Gandi Caddesi No : 92/2 06680 G.O.P. - ANKARA Tel : +90 312 447 26 22 (pbx) Fax : +90 312 446 38 10

# GOLD STANDARD PASSPORT

***Public invitation;***

The following invitation letter was published in Turkish in the regional newspaper " Kastamonu Sözcü" on 23 July 2010:

*Kastamonu İli, Araç İlçesi'nde yapılması ve işletilmesi planlanan Zala Regülâtörü ve Hidroelektrik Enerji Santrali Projesi ile ilgili olarak projenin karbon emisyonunun azaltılmasına olan katkısı nedeni ile Uluslar arası Gold Standart organizasyonu platformunda halkı bilgilendirmek, görüş ve önerilerinizi almak üzere aşağıda belirtilen yer ve tarihte bir toplantı düzenlenecektir.*
*İlgililerin katılmasını rica ederiz.*

*Toplantı Yeri: Yenice Köyü/ Yenice Köyü İlköğretim Okulu, ARAÇ/KASTAMONU*
*Tarih: 27.07.2010*
*Saat: 14.00*
*Raporu hazırlayan kuruluş: EN-ÇEV Enerji Çevre Yatırımları Danışmanlığı Ltd. Şti.*
*Adres: Mahatma Gandi Cd. No: 92/2 GOP/ANKARA*
*Tel: 0 312 447 2622 Fax: 0 312 446 3810*
*www.encev.com.tr*
*Firma: AHMET HAKAN Elektrik Üretim A.Ş.*

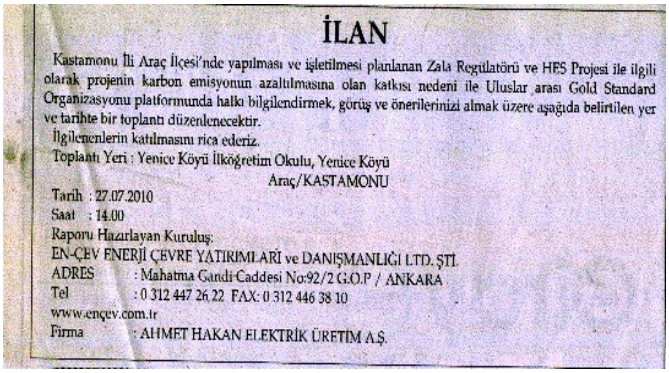
The English version is as follows:

*We have the pleasure of inviting you to participate in the Public Stakeholder Consultation Meeting of the Zala Weir and Hydroelectric Power Plant Project that is planned to be constructed in Province of Kastamonu, Araç District. The aim the of the meeting is to obtain feedback and provide information about the project and its significance in Gold Standard Organization Platform due to leading reduction in carbon emissions.*

*Location: Yenice Village, Yenice Village Primary School, Araç/Kastamonu*
*Date: 27.07.2010*
*Time: 14.00*
*Consultant: EN-ÇEV Enerji Çevre Yatırımları Danışmanlığı Ltd. Şti.*
*Adress: Mahatma Gandi Cd. No: 92/2 GOP/ANKARA*
*Tel: 0 312 447 2622 Fax: 0 312 446 3810*
*www.encev.com.tr*
*Firm: AHMET HAKAN Elektrik Üretim A.Ş.*


KASTAMONU
Sözcü
YIL : 10 SAYI: 2885 23 TEMMUZ 2010 CUMA "Zamanın tanığınız" 50 Kr

**Figure 9: The main page header of the local Newspaper "Sözcü"**


İLAN

Kastamonu İli Araç İlçesi'nde yapılması ve işletilmesi planlanan Zala Regülatörü ve HES Projesi ile ilgili olarak projenin karbon emisyonun azaltılmasına olan katkısı nedeni ile Uluslar arası Gold Standard Organizasyonu platformunda halkı bilgilendirmek, görüş ve önerilerinizi almak üzere aşağıda belirtilen yer ve tarihte bir toplantı düzenlenecektir.
İlgilenenlerin katılmasını rica ederiz.
Toplantı Yeri : Yenice Köyü İlköğretim Okulu, Yenice Köyü
Araç/KASTAMONU
Tarih : 27.07.2010
Saat : 14.00
Raporu Hazırlayan Kuruluş:
EN-ÇEV ENERJİ ÇEVRE YATIRIMLARI ve DANIŞMANLIĞI LTD. ŞTİ.
ADRES : Mahatma Gandi Caddesi No:92/2 G.O.P / ANKARA
Tel : 0 312 447 26 22 FAX: 0 312 446 38 10
www.ençev.com.tr
Firma : AHMET HAKAN ELEKTRİK ÜRETİM A.Ş.

**Figure 10: A copy of the invitation letter publicized by the local Newspaper "Sözcü"**

# GOLD STANDARD PASSPORT

***Participant list to the LSC meeting (Annex 2);***

| Participants List | | | | | |
|---|---|---|---|---|---|
| Date and time: 27/07/2010 - 14:00<br>Location: Yenice Village Elementary School- Yenice Village | | | | | |
| Category Code | Name of participant, job/ position in the community | Male/ Female | Signature | Organization (if relevant) | Contact details |
| A | Turgut Tülübaş<br>Resident | Male | | Yenice Village | |
| A | Necati Çetin<br>Resident | Male | | Yenice Village | |
| A | Rahmi Menrese<br>Resident | Male | | Sarpan Village | |
| A | Hüseyin Satün<br>Resident | Male | | Sarpan Village | |
| A | Satılmış Satün<br>Resident | Male | | Sarpan Village | |
| A | İmdat Kabeli<br>Resident | Male | | Yenice Village | |
| A | Necati Tülübaş<br>Resident | Male | | Yenice Village | |
| A | Saim Bozlak<br>Resident | Male | | Yenice Village | |
| A | Yunus Zilif<br>Resident | Male | | Yenice Village | |
| A | Hasan İnal<br>Resident | Male | | Yenice Village | |
| A | Yusuf Görülü<br>Resident | Male | | Yenice Village | |
| A | Ahmet Zilif<br>Resident | Male | | Yenice Village | |
| A | Unreadable Writing | | | Sarpan Village | |
| A | Murat Bozlak<br>Resident | Male | | Yenice Village | 0366 362 13 90 |
| A | Halim Gedik<br>Headman of Yenice Village | Male | | Yenice Village | 0366 362 12 63 |
| C | F. Fikri Özdemir<br>The Substitute of City Manager | Male | | | 0366 362 10 12 |
| A | İhsan Yazar<br>Journalist | Male | | Araç District | 0366 362 24 20 |
| A | Satılmış Sarıkaya<br>Construction Engineer | Male | | Araç District | 0366 362 12 11<br>0366 362 17 64 |
| C | Sema Sarıkaya<br>The Member of Municipality | Female | | Araç Distirct | 0366 362 18 20 |
| C | Hilmi Yazkan<br>The Chamber of Agriculture<br>The President of the Assembly | Male | | Araç District | 0366 362 11 88 |

# GOLD STANDARD PASSPORT

***Minutes of Meeting***:

The Local Stakeholder Consultation meeting was organized to the purpose of public briefing on the installation and operation of Zala HEPP with 5.184 MWe total installed power on Araç Creek in Kastamonu Province, Araç District, obtaining opinions and proposals and creating awareness to accelerate the projects reducing greenhouse gas emissions is realized in 27/07/2010 with the attendance of 20 both local residents and official institutes. Supporter of Gold Standard Organizations i.e. WWF, Greenpeace, Helio International, Mercy Corps and REC Turkey have been informed about project. The place of meeting was chosen to be the closest place to the project area and all local people are informed about meeting in advance of municipality announcements and local newspaper announcements. Before presentation, agenda of the meeting was explained and non-technical Project summary was distributed to the participants for broader view.

Project presentation and description was made by EN-CEV Energy & Environmental Investments Consultancy Company including information about project developers, the technology and operation of the power plant, estimated emission reduction amount of the plant, the importance of revenue from emission reduction, information about Gold Standard.

Prior to blind sustainable development exercise, the questions and comments were taken from participants about further clarification of project. Questions and comments raised by participants were addressed in assessment of comments part.

In the referred meeting;

- It is observed that all people support the project. But care for minimum environmental destruction during construction works is desired.
- Request is made to choose the staff to be employed in the plant from among the local people as much as possible.
- All attendance agrees upon the opinion that these type of projects should be supported since they don't cause carbon emission and thus, global heating.
- Local people believe that the region shall develop socially and economically with the mentioned project.

In brief, the meeting was ended after the project was explained and discussed with the participants. The support of the participant for the project was easily observed.

***Preliminary scoring of sustainable development matrix:***

| Indicator | Mitigation measure | Relevance to achieving MDG | Chosen parameter and explanation | Preliminary score |
|---|---|---|---|---|
| Gold Standard indicators of sustainable development | If relevant, copy mitigation measure from 'Do No Harm' assessment, and include mitigation measure used to neutralise a score of '-' | Check www.undp.org/mdg and www.mdgmonitor.org<br><br>Describe how your indicator is related to local MDG goals | Defined by project developer | Negative impact: score '-' in case negative impact is not fully mitigated, score '0' in case impact is planned to be fully mitigated<br><br>No change in impact: score '0'<br><br>Positive impact: score '+' |

| | | | | |
|---|---|---|---|---|
| Air quality | Mitigation measure is not required. | **MDG Goal 7:** Ensure Environmental Sustainability **Target 7.a:** *Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources* | **Parameter:** SO2 and NOx emissions **Baseline:** Calculated Tons of SOx and NOx shifted from coal and fuel-oil plants. **Target:** The project will contribute to a decrease in SO2 and NOx emissions. Fossil fuel proportion of the national energy mix will be reduced by the way of generating energy with renewable sources [37] | + |
| Water quality and quantity | To minimize the impact of the project activity to aquatic life, the minimum flow will be released from the weir structure and also from derivation structure to stimulate the flow regime. A reduction in the flow rate can result in a change in the aquatic life and habitat. In addition to the releasing of minimum flow, fish passage[38] and scouring sluices[39] will be constructed, to minimize this impact. The fish passage permits the passing of fishes during spawning periods as well. The scouring sluice is used to provide the passing of silt and other ecosystem components. The released water to the river is continuously measured by flow meter[40] in conjunction with online system of the Provincial Directorate of Environment and Urban Planning. In addition to minimum flow, the downstream water rights have to be contributed to the released flow. The assessment of Downstream Users' Water Rights Report[41] was conducted and the report states that the irrigation water have been provided by the upstream irrigation facilities. | **MDG Goal 7:** Ensure Environmental Sustainability **Target 7.a:** *Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources* | **Parameter:** Amount of water released from weir and derivation structure to river beds. **Baseline** The water quantity of the Araç Creek and Cevizlik Creek before the project implementation. The quantity of water: Monthly Average Flows were provided at the EIA.[42] **Target:** The quality of water will not be affected by the project activity based on the nature of HEPP system. The quantity released from weir structure to river bed is the summation of minimum flow. [43] Please see Table 1 for the amount to be released. | 0 |
| Soil condition | An assessment regarding amount of excavated soil was conducted in the EIA[44]. The excavation will be stored temporarily at the formerly specified and permitted storage | **MDG Goal 7 Ensure Environmental Sustainability Target 7.a 7.1.** "*Proportion of land area covered by forest*". | **Parameter:** Appropriate storage of excavation aggregates and sediment transport. **Baseline** No aggregate production and natural sediment | 0 |

[37] Retrieved from http://www.cakmak.av.tr/pdf/32785_1.pdf , page 1

[38] Zala HEPP, EIA Report, page 137
[39] Zala HEPP, EIA Report, page 132
[40] Zala HEPP, EIA Report, page 139
[41] Zala HEPP, EIA Report, Annex 20
[42] Zala HEPP, EIA Report, page 50,51
[43] Zala HEPP, EIA Report, page 137,138
[44] Zala HEPP, EIA Report, section V.1.1 and page 128,129

| | | | | | |
|---|---|---|---|---|---|
| | | area. The excavation and top soil will be stored separately at those areas. Then, the excavation will be reused for landfilling, backfilling, road repair and service road building purposes.<br><br>It was indicated that, the 20% of the excavated material will be topsoil (vegetable soil) and stored topsoil will be reused for landscaping and reclamation purposes. The residual excavation (if any) will be disposed to solid waste disposal site by the permission of Araç Municipality.[45]<br>The excavation shall not be poured to river bed, which is strictly forbidden by laws. The project activity will be complied with the "Regulation on the Control of Excavation, Construction and Ruins Waste". [46] | | transport along the river.<br>**Target:**<br>Not to pollute the environment at the project site by the excavated soil. | |
| | Other pollutants | No mitigation measure on noise is required since the noise level relevant to the project remains under the limit value 70 dBA as per relevant regulation[47] at a distance from the settlements. The noise levels at the nearest settlements to the weir area, transmission channel area, power house area were assessed within the scope of EIA. [48]<br><br>The calculations for the amount of PM and dust formation were performed by MATCAD and enclosed to Annex 15 of EIA Report. [49]<br>As per the assessment, the expected and calculated PM and dust formation will not exceed the regulated limit values. The precautions[50]: The loading of trucks will be performed without raising dust. The speed limitation shall be applied for the vehicles being operated in the project unit areas (regulator, HEPP etc.), and spraying shall be performed with sprinklers at the working areas | **MDG Goal 7**<br>Ensure Environmental Sustainability<br>**Target 7a.**<br>*Although MDG report does not refer to these pollutants, we still consider them as relevant for the "loss of environmental resources".* | **Parameter:**<br>Noise level during construction, dust formation,<br>**Baseline:**<br>No dust, noise or other pollutant source exists.<br>**Target:**<br>Minimum negative impact to environment. Based on the fact that, the noise, dust and PM values were calculated as lower than the limit values, the impact to environment will be acceptable.<br>Solid wastes will be disposed by the permission of Araç Municipality. | 0 |

[45] Zala HEPP, EIA Report, page 99
[46] Zala HEPP, EIA Report, page 100
[47] The "Regulation on Assessment and Management of Ambient Noise" (Published in official gazette dated 04.06.2010 and numbered 27601)
[48] Zala HEPP, EIA Report, Section V.1.15 and Annex 16
[49] Zala HEPP, EIA Report, section V.1.8 and Annex 15
[50] Zala HEPP, EIA Report, page 127

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|---|---|---|---|---|
| | and service roads. The relevant regulations[51] shall be complied.<br><br>There will be no blasting activities within the scope of the project. Hence no explosive materials will be used up. [52]<br><br>Waste oil[53] [54]and hazardous waste[55] [56]and solid wastes [57] [58] will be handled according to the national regulations. | | | |
| **Biodiversity** | Some plants will be affected during construction; which will be replanted after construction is completed.<br>Reclamation of landscape compartments and impacted areas will be performed after construction finished.[59]<br><br>During the excavation works, vegetal soil scraped off will be used for reclamation and landscaping activities[60].<br>Appropriate reclamation activities to the project site to sustain the flora and faunal habitat of will be performed. [61]<br><br>The minimum flow and downstream water rights to be released from weir structure will be monitored continuously to protect the downstream from loss of habitat and drying of stream.<br><br>The excavations will be used for backfilling purposes and service road building[62] and will not pour into the river bed. All kind of precautions will be performed to prevent.<br><br>A fish passage and silt passage will be constructed on the weir structure to sustain the lateral connectivity of river. | **MDG Goal 7**<br>Ensure Environmental Sustainability<br>**Target 7b:**<br>*Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss* | **Parameter:** number of affected species in the project site.<br>**Baseline:** There are existing habitats and regional biodiversity in the region.<br>**Target:**<br>Minimize the impact of project activity to ecosystem and biodiversity during both construction and operation stages.<br>The continuation of fish diversity and migration of fish species under proper conditions. | 0 |
| Quality of employment | Staff will be trained on health and safety. Furthermore, all Heath | **MDG Goal 1:**<br>Eradicate Extreme | **Parameter**:<br>Number of certificates | + |

[51] The "Regulation on Assessment and Management of Ambient Noise" published in the official gazette date 04.06.2010 and numbered 27601 and the "Regulation on the Control of Industry Based Air Quality" published in the official gazette date: 03.07.2009, number: 27277.
[52] Zala HEPP, EIA Report, page 100
[53]The "Regulation on Control of the Waste oil (Published in official gazette dated 30.07.2008 and numbered 26952, amendment: date: 30.03.2010,number: 27537 )
[54] Zala HEPP, EIA Report, page 121, 122
[55] Regulation on Control of Hazardous Wastes (Published in official gazette dated 14.03.2005 and numbered 25755, amendment: date: 30.10.2010 ,number: 27744 )
[56] Zala HEPP, EIA Report, page 121
[57] Zala HEPP, EIA Report, page 120
[58] Regulation on Control of Solid Wastes (Published in official gazette dated 14.03.1991 and numbered 20814)
[59] Zala HEPP, EIA Report, section V.1.18
[60] Zala HEPP, EIA Report, page 120
[61] Zala HEPP, EIA Report, page 163
[62] Zala HEPP, EIA Report, section V.1.1 and page 128,129

| | | | | |
|---|---|---|---|---|
| | and<br>Safety measurements will be applied according to the "Legislation on Workers Health and Work Safety".[63]<br>An emergency plan is prepared for accident risks. | Poverty and Hunger<br>**Target 1.a*:***<br>*Achieve full and productive employment and decent work for all including women and young people*<br>*1.4 Growth rate of GDP per person employed* | issued/trainings provided.<br>**Baseline:**<br>The local employees have not been trained on the health and safety of workers before the proposed project<br>**Target:**<br>During the whole process including construction and operation phases, the health and safety of the workers will be considered well and necessary measures will be taken. | |
| Livelihood of the poor | Mitigation measures are not required for this indicator. | **MDG Goal 1:**<br>Eradicate Extreme Poverty and Hunger<br>**Target 1.a*:***<br>*Achieve full and productive employment and decent work for all, including women and young people*<br>*1.4 Growth rate of GDP per person employed*<br>*1.5 Employment-to population ratio* | **Parameter:**<br>The number of locally recruited stuff<br>**Baseline:**<br>No additional income for local people in absence of the project.<br>**Target:**<br>Changes and improvements in living standard of local community. Project will create new job opportunities during construction & operation phases.<br>. | + |
| Access to affordable and clean energy services | Mitigation measures are not required for this indicator. | | **Parameter:**<br>fossil fuel replaced with renewable energy sources due to project activity<br>**Baseline:**<br>Energy demand increases in Turkey constantly. In the absence of the project activity there won't be any difference on energy production in contrary to the energy demand; or the fossil fuels won't take the place of renewable sources.<br>**Target:**<br>Distributed Energy Systems, like HEPPs are useful for increasing the efficiency. Besides, the project helps to decrease the dependency of imported fossil fuels (like natural Gas, coal etc.) | 0 |
| Human and institutional capacity | Mitigation measures are not required for this indicator. | **MDG Goal 1**<br>Eradicate Extreme Poverty and Hunger<br>**Target 1.b*:***<br>*Achieve full and productive* | **Parameter:**<br>The trainings provided to staff<br>**Baseline:**<br>There is no significant | + |

[63] Published at the official gazette date: 11.1.1974, No: 14765

| | | | | |
|---|---|---|---|---|
| | | *employment and decent work for all, including women and young people 1.4 Growth rate of GDP per person employed 1.5 Employment-to-population ratio 1.6 Proportion of employed people living below $1 (PPP) per day 1.7Proportion of own-account and contributing family workers in total employment* | development in the awareness on environmental protection and skills of the local people. Besides, most of the people don't aware of the environmental responsibilities. **Target:** Improving skills of the staff and awareness about environmental issues. | |
| Quantitative employment and income generation | Mitigation measures are not required for this indicator. | **MDG Goal 1:** Eradicate Extreme Poverty and Hunger **Target 1.b*:*** *Achieve full and productive employment and decent work for all, including women and young people 1.4 Growth rate of GDP per person employed 1.5 Employment-to-population ratio 1.6 Proportion of employed people living below $1 (PPP) per day 1.7Proportion of own-account and contributing family workers in total employment* | **Parameter:** annual wage rate to workers **Baseline:** No job opportunities and payment **Target:** Several employees will be employed during construction and operation phases. Therefore the project will contribute to decrease the unemployment rate and help income generation. | + |
| Balance of payments and investment | Mitigation measures are not required for this indicator. | **MDG Goal 8:** Develop A Global Partnership For Development **Target 8.d*:*** *Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term* | **Parameter:** Avoided natural gas imported **Baseline:** Turkey's dependency on imported fossil fuels like natural gas, imported coal, is at high levels. **Target:** The volume of natural gas needed to generate annual electricity generation of project activity gives the parameter: avoided the natural gas imported. The official data of TEİAŞ will be used for calculation. | + |
| Technology transfer and technological self-reliance | Mitigation measures are not required for this indicator. | **MDG Goal 8** Develop A Global Partnership For Development **Target 8.f** *In cooperation with the private sector, make available the benefits of new technologies, especially information and communications* | **Baseline:** not seen the latest technology and know-how **Target:** Project will enable technology transfer to Turkey and influence development of suppliers in the Country**.** | 0 |

# GOLD STANDARD PASSPORT

A version of the SDM was prepared for the stakeholders which had been filled during LCS meeting. This version is formed of three columns and headings of columns are: name of indicators, what is the opinion of the stakeholder on the impact s of the proposed project (scoring with one of these; +, 0, -) and explanation if any. Please see annex 3 for a copy which is named as the sustainability questionnaire. The sustainability questionnaire was attached to non-technical summary of project and the sheet of 3 questions. These 3 sheets had been distributed to the participants of LSC meeting. The sustainability questionnaire had been full filled by the stakeholders after the presentation during the LSC meeting. The project proponent had helped the participant. The meaning of indicators had been explained in short. It is important not to affect the stakeholders' opinions and alter their scoring. Hence, the consultant let the stakeholders answering own their own.

Below is the scoring of the sustainability questionnaire. The average of scores was applied.
**Scoring of blind stakeholder exercise of sustainable development matrix:**

| Indicator | Mitigation measure | Relevance to achieving MDG | Chosen parameter and explanation | Preliminary score |
|---|---|---|---|---|
| Gold Standard indicators of sustainable development | If relevant, copy mitigation measure from 'Do No Harm' assessment, and include mitigation measure used to neutralise a score of '-' | Check www.undp.org/mdg and www.mdgmonitor.org<br><br>Describe how your indicator is related to local MDG goals | Defined by project developer | Negative impact: score '-' in case negative impact is not fully mitigated, score '0' in case impact is planned to be fully mitigated<br><br>No change in impact: score '0'<br><br>Positive impact: score '+' |
| Air quality | | | | 0 |
| Water quality and quantity | | | | - |
| Soil condition | | | | 0 |
| Other pollutants | | | | - |
| Biodiversity | | | | - |
| Quality of employment | | | | - |
| Livelihood of the poor | | | | - |
| Access to affordable and clean energy services | | | | - |
| Human and institutional capacity | | | | - |
| Quantitative employment and income generation | | | | 0 |
| Balance of payments and investment | | | | - |
| Technology transfer and technological self-reliance | | | | - |

## E.2. Stakeholder Feedback Round

The stakeholders' feedback round will be started in line with the validation process. The Gold Standard Foundation and the DOE will be informed about the starting date and the following procedures of the Stakeholder Feedback Round.

Feedback round will be organized according to GS requirements for regular projects. The participants were informed about the follow-up process during the SFR meeting and were asked for their contributions.

Soft copies of the project documents (GS Passport, PDD, GS LSC Report, Turkish version of GS LSC Report, Turkish summary of the project) will be available on the web site of EN-ÇEV (www.encev.com.tr ; under announcements section). Hard copies of the Turkish version of GS LSC Report, non-technical summary of the project and GS Passport in English will be available by sending to the Muhtar's of villages during the 2-month long feedback round for those who do not have internet access.

During the local stakeholder meeting, the participants have been informed about the feedback round. Within the scope of SFR, a visit to project site to communicate with women who did not attend the LSC will be performed. Meanwhile, the man's opinion can also asked and some feedback will be expected.

International offices of Helio International, Mercy Corps and local representative of GS will be included in the feedback round also.

It is planned to be interviewed with the Mukhtar's of villages during the validation site visit for the purpose of following-up the comments from the LSC meeting.

As the female participants were reluctant to participate to the LSC meeting, a separate meeting will be organized with them during the SFR. If necessary, the invitations will be made door-to-door with the wife of the Mukhtar or another respected villager. After the meeting, it is important to encourage women to participate and make interpretations. A feedback form will be distributed to the participants. If they are unwilling to fill, the feedback form will be studied with the women one by one or a group work will be performed.
Furthermore, all relevant feedbacks and comments will be noted and the questions will be answered with respect to the proposed project briefly.
It is expected that the female participation significantly strengthened the local contribution to the stakeholder comments.

The feedbacks of man who were attended the LSC meeting or just live at the vicinity are crucial as well. In order to reach their comments, the popular meeting area, and coffeehouse or in front of mosque may be visited. The feedback may also be received by door-to-door visits to stakeholders' houses.

# GOLD STANDARD PASSPORT

## SECTION F. Outcome Sustainability assessment

### F.1. 'Do no harm' Assessment

| Safeguarding principles | | Description of relevance to my project | Assessment of my project risks breaching it (low, medium, high) | Mitigation measure |
|---|---|---|---|---|
| 1 Human Rights | The project does not involve and is not complicity in the alteration, damage or removal of any critical cultural heritage. | There is not any historical, Natural or Cultural Heritage area within the boundaries of the Project activity.[64] The General Directorate of Cultural Heritage and Museums gave opinion[65] on the non-existence of mentioned areas. | **None** | |
| | The project does not involve and is not complicit in involuntary resettlement. | There will be no involuntary resettlement. | **None** | |
| | The project respects internationally proclaimed human rights including dignity, cultural property and uniqueness of indigenous people. The project is not complicit in Human Rights abuses. | Turkey is a party of European Convention on Human Rights[66] since years. Therefore national and internationally protected rights will be considered. | **None** | |
| 2 . Labour Standards | The project does not employ and is not complicit in any form of child labour | Turkey has signed the convention of ILO ( International Labour Organisation) regarding the prevention of child labour with the articles 182[67] and 138[68] | **None** | |
| | The project respects the employees' freedom of association and their right to collective bargaining and is not complicit in restrictions of these freedoms and rights. | All the relevant Turkish legislations will be complied during both the construction and operation stages, in addition the international agreements like ILO (articles 87[69], 98[70] and 102[71]) will be considered as necessary. | **None** | |
| | The project does not involve and is not complicit in any form of forced or compulsory labour. | In addition to the relevant national legislations, Turkey is a party of ILO convention. Therefore regarding the forced labour the articles 29[72] and 105[73] will be considered. | **None** | |
| | The project does not involve and is not | Turkey has signed the relevant articles of ILO which are 100[74] and 111[75] and | **None** | |

[64] Zala HEPP, EIA Report, page 63
[65] Zala HEPP, EIA Report, Annex 1(f)
[66] Please See Official Website of Ministry of Foreign Affairs of Turkey : http://www.mfa.gov.tr/the-european-convention-on-human-rights.en.mfa
[67] Retrieved from http://www.ilo.org/public/turkish/region/eurpro/ankara/about/soz182.htm
[68] Retrieved from http://www.ilo.org/public/turkish/region/eurpro/ankara/about/soz138.htm
[69] Retrieved from http://www.ilo.org/public/turkish/region/eurpro/ankara/about/soz087.htm
[70] Retrieved from http://www.ilo.org/public/turkish/region/eurpro/ankara/about/soz098.htm
[71] Retrieved from http://www.ilo.org/public/turkish/region/eurpro/ankara/about/soz102.htm
[72] Retrieved from http://www.ilo.org/public/turkish/region/eurpro/ankara/about/soz029.htm
[73] Retrieved from http://www.ilo.org/public/turkish/region/eurpro/ankara/about/soz105.htm
[74] Retrieved from http://www.ilo.org/public/turkish/region/eurpro/ankara/about/soz100.htm

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| | complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis. | committed to comply with the articles in question. Therefore during whole project process the project will not involve any form of discrimination. | | |
| | The project provides workers with a safe and healthy work environment and is not complicit in exposing workers to unsafe or unhealthy work environments | All the necessary measures will be taken against the accidents and the safety and healthy environments will be provided for the employees. In addition Turkey is a party of ILO convention, therefore the relevant article which is article 155[76]; will be considered | **None** | During both construction and operation phases, necessary studies and the organizations will be carried out regarding the health and safety of the staff. The necessary safety measures will be taken in the construction area. In addition, the warning plates will be placed around the whole area. The staff will be trained in respect to the construction safety, against the work accidents and it will be provided that all staff will comply with the safety rules. The project owner will follow the necessary procedures for construction safety standards. A safe and healthy working environment as per the Labour Law Legislation (no: 4857) and regulation on Occupational Health and Safety. |
| **3. Environmental Protection** | The project takes a precautionary approach in regard to environmental challenges and is not complicity in practices contrary to the precautionary principle. This principle can be defined as:"When an | The Project will not cause significant pollutions; the minor wastes (domestic wastes, machine oils) will be handled with necessary measures according to the relevant national legislations[77]. | **Low** | Waste oil[78] [79]and hazardous waste[80] [81]and solid wastes [82] [83] will be handled according to the national regulations. |

[75] Retrieved from http://www.ilo.org/public/turkish/region/eurpro/ankara/about/soz111.htm
[76] Retrieved from http://www.ilo.org/public/turkish/region/eurpro/ankara/about/soz155.htm
[77] Zala HEPP, EIA Report, pages 117.
[78]The "Regulation on Control of the Waste oil (Published in official gazette dated 30.07.2008 and numbered 26952, amendment: date: 30.03.2010,number: 27537 )
[79] Zala HEPP, EIA Report, page 121, 122
[80] Regulation on Control of Hazardous Wastes (Published in official gazette dated 14.03.2005 and numbered 25755, amendment: date: 30.10.2010 ,number: 27744 )
[81] Zala HEPP, EIA Report, page 121
[82] Zala HEPP, EIA Report, page 120
[83] Regulation on Control of Solid Wastes (Published in official gazette dated 14.03.1991 and numbered 20814)

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| | activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically." | | | |
| | The project does not involve and is not complicit in significant conversion or degradation of critical natural habitats, including those that are (a) legally protected, (b) officially proposed for protection, (c) identified by authoritative sources for their high conservation value or (d) recognised as protected by traditional local communities | Turkey has its own legislations regarding the protected areas and is a party of many international agreements regarding the protected areas like BERN and RAMSAR. There isn't any protected area in the project region[84]. | **None** | In addition to that, The proposed Project will completely comply with "Water Pollution Control Regulations" [85]and "Law on Aquaculture" |
| **4 .Anti-Corruption** | The project does not involve and is not complicit in corruption. | The project does not involve and is not complicit in corruption since Turkey is a part of OECD[86]. | **Low** | The necessary precautions and measures will be taken during construction of proposed project. |
| **Additional relevant critical issues for my project type** | | **Description of relevance to my project** | **Assessment of relevance to my project (low, medium, high)** | **Mitigation measure** |
| 1 | | | | |
| 2 | | | | |
| etc… | | | | |

## F.2. Sustainable Development matrix

The blind SDM (sustainability questionnaire) was integrated into the preliminary SDM to obtain consolidated SDM. Hence the concerns and opinions of stakeholders were integrated into the preliminary one. However, the sustainability questionnaire may not reflect the real situation. Since there generally is prejudice on HEPP investment due to the formerly constructed and wrong operated HEPPs in Turkey.

[84] Zala Weir and HEPP, EIA Report , page 64
[85] Zala HEPP, EIA Report, page 160,161
[86] Retrieved from http://www.oecd.org/country/0,3377,en_33873108_33873854_1_1_1_1_1,00.html

Therefore, while preparing the consolidated SDM, the real, country specific, objective knowledge and data, are dominated. The implementation of a conservative approach is rule of thumb. Thus, the consolidated SDM was prepared.

***Consolidated sustainable development matrix:***

| Indicator | Mitigation measure | Relevance to achieving MDG | Chosen parameter and explanation | Preliminary score |
|---|---|---|---|---|
| Gold Standard indicators of sustainable development | If relevant, copy mitigation measure from 'Do No Harm' assessment, and include mitigation measure used to neutralise a score of '-' | Check www.undp.org/mdg and www.mdgmonitor.org<br><br>Describe how your indicator is related to local MDG goals | Defined by project developer | Negative impact: score '-' in case negative impact is not fully mitigated, score '0' in case impact is planned to be fully mitigated<br><br>No change in impact: score '0'<br><br>Positive impact: score '+' |
| Air quality | Mitigation measure is not required. | **MDG Goal 7:** Ensure Environmental Sustainability **Target 7.a:** *Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources* | **Parameter:** SO2 and NOx emissions **Baseline:** Calculated Tons of SOx and NOx shifted from coal and fuel-oil plants. **Target:** The project will contribute to a decrease in SO2 and NOx emissions. Fossil fuel proportion of the national energy mix will be reduced by the way of generating energy with renewable sources [87] | + |
| Water quality and quantity | To minimize the impact of the project activity to aquatic life, the minimum flow will be released from the weir structure and also from derivation structure to stimulate the flow regime. A reduction in the flow rate can result in a change in the aquatic life and habitat. In addition to the releasing of minimum flow, fish passage[88] and scouring sluices[89] will be constructed, to minimize this impact. The fish passage permits the passing of fishes during spawning periods as well. The scouring sluice is used to provide the passing of silt and other ecosystem components. The released water to the river is | **MDG Goal 7:** Ensure Environmental Sustainability **Target 7.a:** *Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources* | **Parameter:** Amount of water released from weir and derivation structure to river beds. **Baseline** The water quantity of the Araç Creek and Cevizlik Creek before the project implementation. The quantity of water: Monthly Average Flows were provided at the EIA.[92] **Target:** The quality of water will not be affected by the project activity based on the nature of HEPP system. The quantity released from weir structure to river bed is the summation of minimum flow. [93] | 0 |

[87] Retrieved from http://www.cakmak.av.tr/pdf/32785_1.pdf , page 1
[88] Zala HEPP, EIA Report, page 137
[89] Zala HEPP, EIA Report, page 132

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| | continuously measured by flow meter[90] in conjunction with online system of the Provincial Directorate of Environment and Urban Planning.<br>In addition to minimum flow, the downstream water rights have to be contributed to the released flow. The assessment of Downstream Users' Water Rights Report[91] was conducted and the report states that the irrigation water have been provided by the upstream irrigation facilities. | | Please see Table 1 for the amount to be released. | |
| Soil condition | An assessment regarding amount of excavated soil was conducted in the EIA[94]. The excavation will be stored temporarily at the formerly specified and permitted storage area. The excavation and top soil will be stored separately at those areas. Then, the excavation will be reused for landfilling, backfilling, road repair and service road building purposes.<br><br>It was indicated that, the 20% of the excavated material will be topsoil (vegetable soil) and stored topsoil will be reused for landscaping and reclamation purposes. The residual excavation (if any) will be disposed to solid waste disposal site by the permission of Araç Municipality.[95]<br>The excavation shall not be poured to river bed, which is strictly forbidden by laws. The project activity will be complied with the "Regulation on the Control of Excavation, Construction and Ruins Waste".[96] | **MDG Goal 7 Ensure Environmental Sustainability**<br>**Target 7.a 7.1.**<br>*"Proportion of land area covered by forest".* | **Parameter:**<br>Appropriate storage of excavation aggregates and sediment transport.<br>**Baseline**<br>No aggregate production and natural sediment transport along the river.<br>**Target:**<br>Not to pollute the environment at the project site by the excavated soil. | 0 |
| Other pollutants | No mitigation measure on noise is required since the noise level relevant to the project remains under the limit value 70 dBA as per relevant regulation[97] at a distance from the settlements. The noise levels at the nearest settlements to the weir area, transmission channel area, power house area were | **MDG Goal 7**<br>Ensure Environmental Sustainability<br>**Target 7a.**<br>*Although MDG report does not refer to these pollutants, we still consider them as relevant for the "loss of environmental resources".* | **Parameter:**<br>Noise level during construction, dust formation,<br>**Baseline:**<br>No dust, noise or other pollutant source exists.<br>**Target:**<br>Minimum negative impact | 0 |

[92] Zala HEPP, EIA Report, page 50,51
[93] Zala HEPP, EIA Report, page 137,138
[90] Zala HEPP, EIA Report, page 139
[91] Zala HEPP, EIA Report, Annex 20
[94] Zala HEPP, EIA Report, section V.1.1 and page 128,129
[95] Zala HEPP, EIA Report, page 99
[96] Zala HEPP, EIA Report, page 100
[97] The "Regulation on Assessment and Management of Ambient Noise" (Published in official gazette dated 04.06.2010 and numbered 27601)

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| | assessed within the scope of EIA. [98]<br><br>The calculations for the amount of PM and dust formation were performed by MATCAD and enclosed to Annex 15 of EIA Report. [99]<br>As per the assessment, the expected and calculated PM and dust formation will not exceed the regulated limit values. The precautions[100]: The loading of trucks will be performed without raising dust. The speed limitation shall be applied for the vehicles being operated in the project unit areas (regulator, HEPP etc.), and spraying shall be performed with sprinklers at the working areas and service roads. The relevant regulations[101] shall be complied.<br><br>There will be no blasting activities within the scope of the project. Hence no explosive materials will be used up. [102]<br><br>Waste oil[103] [104]and hazardous waste[105] [106]and solid wastes [107] [108] will be handled according to the national regulations. | | to environment. Based on the fact that, the noise, dust and PM values were calculated as lower than the limit values, the impact to environment will be acceptable.<br>Solid wastes will be disposed by the permission of Araç Municipality. | |
| **Biodiversity** | Some plants will be affected during construction; which will be replanted after construction is completed.<br>Reclamation of landscape compartments and impacted areas will be performed after construction finished.[109]<br><br>During the excavation works, vegetal soil scraped off will be used for reclamation and landscaping activities[110].<br>Appropriate reclamation activities to the project site to sustain the | **MDG Goal 7**<br>Ensure Environmental Sustainability<br>**Target 7b:**<br>*Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss* | **Parameter:** number of affected species in the project site.<br>**Baseline:** There are existing habitats and regional biodiversity in the region.<br>**Target:**<br>Minimize the impact of project activity to ecosystem and biodiversity during both construction and operation stages.<br>The continuation of fish diversity and migration of | 0 |

[98] Zala HEPP, EIA Report, Section V.1.15 and Annex 16
[99] Zala HEPP, EIA Report, section V.1.8 and Annex 15
[100] Zala HEPP, EIA Report, page 127
[101] The "Regulation on Assessment and Management of Ambient Noise" published in the official gazette date 04.06.2010 and numbered 27601 and the "Regulation on the Control of Industry Based Air Quality" published in the official gazette date: 03.07.2009, number: 27277.
[102] Zala HEPP, EIA Report, page 100
[103]The "Regulation on Control of the Waste oil (Published in official gazette dated 30.07.2008 and numbered 26952, amendment: date: 30.03.2010,number: 27537 )
[104] Zala HEPP, EIA Report, page 121, 122
[105] Regulation on Control of Hazardous Wastes (Published in official gazette dated 14.03.2005 and numbered 25755, amendment: date: 30.10.2010 ,number: 27744 )
[106] Zala HEPP, EIA Report, page 121
[107] Zala HEPP, EIA Report, page 120
[108] Regulation on Control of Solid Wastes (Published in official gazette dated 14.03.1991 and numbered 20814)
[109] Zala HEPP, EIA Report, section V.1.18
[110] Zala HEPP, EIA Report, page 120

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| | flora and faunal habitat of will be performed. [111]<br><br>The minimum flow and downstream water rights to be released from weir structure will be monitored continuously to protect the downstream from loss of habitat and drying of stream.<br><br>The excavations will be used for backfilling purposes and service road building[112] and will not pour into the river bed. All kind of precautions will be performed to prevent.<br><br>A fish passage and silt passage will be constructed on the weir structure to sustain the lateral connectivity of river. | | fish species under proper conditions. | |
| Quality of employment | Staff will be trained on health and safety. Furthermore, all Heath and<br>Safety measurements will be applied according to the "Legislation on Workers Health and Work Safety".[113]<br>An emergency plan is prepared for accident risks. | **MDG Goal 1:**<br>Eradicate Extreme Poverty and Hunger<br>**Target 1.a*:***<br>*Achieve full and productive employment and decent work for all including women and young people*<br>*1.4 Growth rate of GDP per person employed* | **Parameter**:<br>Number of certificates issued/trainings provided.<br>**Baseline:**<br>The local employees have not been trained on the health and safety of workers before the proposed project<br>**Target:**<br>During the whole process including construction and operation phases, the health and safety of the workers will be considered well and necessary measures will be taken. | + |
| Livelihood of the poor | Mitigation measures are not required for this indicator. | **MDG Goal 1:**<br>Eradicate Extreme Poverty and Hunger<br>**Target 1.a*:***<br>*Achieve full and productive employment and decent work for all, including women and young people*<br>*1.4 Growth rate of GDP per person employed*<br>*1.5 Employment-to population ratio* | **Parameter:**<br>The number of locally recruited stuff<br>**Baseline:**<br>No additional income for local people in absence of the project.<br>**Target:**<br>Changes and improvements in living standard of local community. Project will create new job opportunities during construction & operation phases.<br>. | + |
| Access to affordable and clean energy services | Mitigation measures are not required for this indicator. | | **Parameter:**<br>fossil fuel replaced with renewable energy sources due to project activity<br>**Baseline:** | 0 |

[111] Zala HEPP, EIA Report, page 163
[112] Zala HEPP, EIA Report, section V.1.1 and page 128,129
[113] Published at the official gazette date: 11.1.1974, No: 14765

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| | | | Energy demand increases in Turkey constantly. In the absence of the project activity there won't be any difference on energy production in contrary to the energy demand; or the fossil fuels won't take the place of renewable sources.<br>**Target:**<br>Distributed Energy Systems, like HEPPs are useful for increasing the efficiency. Besides, the project helps to decrease the dependency of imported fossil fuels (like natural Gas, coal etc.) | |
| Human and institutional capacity | Mitigation measures are not required for this indicator. | **MDG Goal 1**<br>Eradicate Extreme Poverty and Hunger<br>**Target 1.b*:***<br>*Achieve full and productive employment and decent work for all, including women and young people*<br>*1.4 Growth rate of GDP per person employed*<br>*1.5 Employment-to-population ratio*<br>*1.6 Proportion of employed people living below $1 (PPP) per day*<br>*1.7Proportion of own-account and contributing family workers in total employment* | **Parameter:**<br>The trainings provided to staff<br>**Baseline:**<br>There is no significant development in the awareness on environmental protection and skills of the local people. Besides, most of the people don't aware of the environmental responsibilities.<br>**Target:**<br>Improving skills of the staff and awareness about environmental issues. | + |
| Quantitative employment and income generation | Mitigation measures are not required for this indicator. | **MDG Goal 1:**<br>Eradicate Extreme Poverty and Hunger<br>**Target 1.b*:***<br>*Achieve full and productive employment and decent work for all, including women and young people*<br>*1.4 Growth rate of GDP per person employed*<br>*1.5 Employment-to-population ratio*<br>*1.6 Proportion of employed people living below $1 (PPP) per day*<br>*1.7Proportion of own-account and contributing family workers in total employment* | **Parameter:**<br>annual wage rate to workers<br>**Baseline:**<br>No job opportunities and payment<br>**Target:**<br>Several employees will be employed during construction and operation phases. Therefore the project will contribute to decrease the unemployment rate and help income generation. | + |
| Balance of payments and investment | Mitigation measures are not required for this indicator. | **MDG Goal 8:**<br>Develop A Global Partnership For Development | **Parameter:**<br>Avoided natural gas imported<br>**Baseline:** | + |

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| | | **Target 8.d:** *Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term* | Turkey's dependency on imported fossil fuels like natural gas, imported coal, is at high levels. **Target:** The volume of natural gas needed to generate annual electricity generation of project activity gives the parameter: avoided the natural gas imported. The official data of TEİAŞ will be used for calculation. | |
| Technology transfer and technological self-reliance | Mitigation measures are not required for this indicator. | **MDG Goal 8** Develop A Global Partnership For Development **Target 8.f** *In cooperation with the private sector, make available the benefits of new technologies, especially information and communications* | **Baseline:** not seen the latest technology and know-how **Target:** Project will enable technology transfer to Turkey and influence development of suppliers in the Country. | 0 |

**Justification choices, data source and provision of references**
A justification paragraph and reference source is required for each indicator, regardless of score

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| **Air quality** | A dust emission shall occur during the work of preparation of land and at the stage of construction at the project unit areas, during the other infrastructure works, during transportation and storing processes, during the movement of vehicles at the project area. A dust emission shall form arising from the activities (excavation, fill, etc.) at the stage of construction.[114] The following precautions shall be taken to minimize the dust to occur during all works in the scope of projects; the operation area and transport roads shall be sprinkled by a water truck in order that the dusts from the operation would not harm the neighbouring agricultural lands. Loading of produced products on the trucks shall be performed without hurling them about and dust emission shall be prevented by covering the top of trucks by canvas.[115] The sprinkling water to prevent dusting during summer months shall be supplied from Araç Creek.[116] Since watering work shall be made continuously by water trucks directed to prevent dust, the dust emissions during operation shall be lower than those values calculated.[117] In the construction stage from preparation of land to the opening of units a formation of gas emissions shall be in question arising from fuel utilization of construction equipment. Formation of gas and dust emission will not be observed in the operation stage. |
| **Water quality and quantity** | Drinking and potable water needed for the staff during the construction stage of the said project shall be supplied from the springs and fountains of villages in the vicinity. Water use permission shall be obtained from the headmen of villages for the use of village waters. When required, the drinking water for the staff may be obtained with carboys.[118] In the said project, water obtained through the weir structure shall be returned to the bed of Araç Creek after electric generation. Therefore some quantity of the water in Araç Creek shall be used for energy. An interruption shall not be in question between the living zones of fishes with a fish gate planned on the regulator. Water released to Araç Creek from the regulator shall minimize the adverse effects to occur because the creek's water is taken. The creek shall again have its normal discharge with the tail water at the outlet of power house and the operation shall not have any effect on the natural life of creek.[119] A certain quantity of water shall be released to the creek bed for about 9 km between Zala weir and power house location for the continuation of life.[120] Since the water used to prevent dust formation shall evaporate, its recycle as waste |

[114] Zala HEPP, EIA Report, page 108
[115] Zala HEPP, EIA Report, page 110
[116] Zala HEPP, EIA Report, page 28
[117] Zala HEPP, EIA Report, page 110
[118] Zala HEPP, EIA Report, page 28
[119] Zala HEPP, EIA Report, page 89
[120] Zala HEPP, EIA Report, page 137

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| | water shall not be in question. |
| **Soil condition** | Prior to the construction of facilities involved under the project, the land shall be prepared and foundation excavation is performed. First organic soil on the surface shall be stripped under this work. As a result of these works, an excavation waste shall be under consideration. |
| **Other pollutants** | **a) Solid Waste:** There shall exist organic origin wastes such as food wastes within the domestic solid wastes. Furthermore, the recyclable solid wastes (paper, glass, plastic, metal cans, etc.) within the domestic wastes originated from the staff shall be accumulated separate from the organic origin wastes and given to recycling plants in the direction of related provisions of the Regulation on Control of Packing Wastes published in the O. G. dated 24/06/2007 and number 26562 (amended by O.G. dated 30.03.2010 and number 27537). Collection, accumulation and removal of solid wastes shall be performed as indicated in the Regulation on Control of Solid Wastes. As indicated in Article 18 of "Regulation on Control of Solid Wastes" published in O.G. dated 14.03.1991 and number 20814, dumping the domestic solid wastes to seas, lakes and like receiving environment, and streets, forests and locations causing adverse effect on the environment is forbidden. In this direction, solid wastes that are formed in the operation stage shall be accumulated in closed containers within the power station building and regularly transported to the garbage dump area of Araç Municipality by the employees with closed special vehicles and removed. In the stage of removing the solid wastes in the stage of operation, the provisions of "Regulation on Control of Solid Wastes" published in O.G. dated 14.03.1991 and number 20814, (amended by O.G. dated April 5, 2005 and number 25777) shall anyway be complied with.[121]<br><br>**b) Noise:** A formation of noise shall be under consideration as a result of operation of construction equipment to be used in the stage of land preparation and construction stage. An assessment was conducted within the scope of EIA[122] to identify the impact of noise observed from the construction activities as per "The Regulation on The Assessment and Management of Ambient Noise" which defines the limit value for construction activity as 70 dBA[123]. The noise pressure levels of selected construction areas (ie: weir area, transmission channel area, power house area) were calculated by using the noise levels of to be used heavy vehicles[124] during construction. The noise levels of the specific construction areas were detected lower than the limit value with respect to the distance in between. |
| **Biodiversity** | A local flora loss shall be under consideration as a result of excavations in the stage of construction under the proposed project.[125] Flora vegetation in the project area shall be destroyed during the works performed in the stage of preparation of land and construction. However, after the construction stage is completed, landscaping work complying with topography and regional vegetation shall be performed around the project area. Attention shall be paid to the running periods and hours of the construction equipment in the construction period from the point of view that macro creatures do not incur change of place due to discomfort factor and other adverse factors. Filling processes with materials emerging from excavation during construction period shall be minimized not to cause instability of fauna habitats nearby.[126] It is foreseen that terrestrial fauna species living in the areas in the forest where trees shall be cut would not be affected adversely because of the project due to migrating or being carried to nearby forest areas which have the same characteristics.[127] On the other hand, during operation stage, the flow regime of water in Araç Creek changes between the weir where the water is diverted and the discharge of power house. The aquatic habitat shall possibly be affected on the basis of change (drop) in the flow regime of water in Araç Creek between the regulator and hydroelectric power plant. Therefore, a certain quantity of water shall be released to downstream of the weir for the minimization of this adverse effect and continuation of aquatic environment.[128] Differentiation of existing niches originating from the project is not in question. The same situation is under |

[121] Zala HEPP, EIA Report, page 120
[122] Zala HEPP, EIA Report, Section V.1.15 and Annex 16
[123] decibel A-weighting, an environmental noise measurement
[124] Due to the nature of the assessment, it was assumed that, all heavy vehicles will be used at the same time. However, it is not possible in reality. Hence, the real noise level will be lower than the calculated ones.
[125] Zala HEPP, EIA Report, page 148
[126] Zala HEPP, EIA Report, page 163
[127] Zala HEPP, EIA Report, page 111
[128] Zala HEPP, EIA Report, page 30

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|---|---|
| | consideration for the aquatic micro-organisms. An influence is in question for moving micro-organisms since flow rate changes. Releasing some water for benthic or base-attached organisms shall keep adverse effects at minimum level.[129] |
| **Quality of employment** | Project activities will create many direct and indirect opportunities both locally and nationally. There is no adverse effect of the positions. All employees will be trained for occupational safety according to local regulations. |
| **Livelihood of the poor** | Generating electricity from resources that was not used before creates an additional income to the local community, influencing the poverty alleviation, particularly in the rural areas, and accelerates the regional economic development. As a measurable effect, the impact on the local economy shall be monitored and reported in form of contracts with and invoices from local subcontractors and businesses. |
| **Access to affordable and clean energy services** | As a local energy source, hydro power helps to mitigate Turkey's high import dependency and thus improves the access to energy services, especially in the scenarios of import stops or energy price hikes. The International Energy Agency criticizes dependency on oil and gas imports and demands for expansion of renewable energy in Turkey. However, as the improved access to energy services does not affect the local public (as the electricity is delivered to the grid) and cannot be assigned to specific consumers and therefore not be monitored, a conservative score of zero is applied. |
| **Human and institutional capacity** | Project development will promote the use of renewable energies in the region. It will require widespread education and skills improvement, as the local people will be incorporated in the development and maintenance of the project. The local public is intensively involved in the development and decision-making regarding the plant within the stakeholder consultation process, representing a new kind of institution as part of the development of a Turkish energy project. One measurable effect on human capacity is the improved skills of plant staff. Education and trainings are part of the monitoring. One measurable effect on human capacity is the improved skills of plant staff. Education and trainings are part of the monitoring. |
| **Quantitative employment and income generation** | Employment of 100 persons, unqualified people dominating, is planned in the construction stage under Zala HEPP project. On the other hand, employment of 5 people in the power plant in the stage of operation is planned for maintenance and control works dominatingly as qualified personnel. |
| **Balance of payments and investment** | The project and its role in strengthening the sustainable sector of electricity generation in Turkey tend to contribute to mitigation of import dependency. With 70% of total primary energy supply in the last years and a growing trend this is an important issue for Turkish energy policy. Electricity generation from renewable sources is completely independent from any imports and thus does not have any negative effects on the balance of payments. The positive effect of this project to this indicator will be monitored by calculation of avoided natural gas and liquid fuel import amount for electricity production. The share of electricity generation from natural gas and liquid petroleum fuels, total natural gas and liquid petroleum fuels amounts used for electricity production and electricity production amount of natural gas and liquid petroleum fuels will be taken from official statistics. |
| **Technology transfer and technological self-reliance** | As the project developer is a Turkish company using the returns from the GS VER project to enable the realization of the hydroelectric power plant, the Turkish capabilities, competencies and self-reliance regarding the introduction of innovative technologies are strengthened. The project developer considers the investment into and the operation of a new technology in Turkey as a contribution to technological self-reliance due to the gathered experience with the proposed project. For this parameter, quantifiable monitoring cannot be achieved; therefore, this parameter will not be monitored and taken as zero. |

The blind stakeholder consultation matrixes which can be seen in the section "E.1 Assessment of Stakeholder Comment" were filled by stakeholders during the LSC. The gathering of preliminary scored sustainable development matrix and blind stakeholder scored sustainable development matrix gives the "Consolidated Sustainable Development Matrix" above. The monitoring plan and the parameters to be monitored shall be defined and specified in accordance with the "Consolidated Sustainable Development Matrix". During the local stakeholder consultation, the stakeholders did not state any negative comments as is seen from the "Blind

[129] Zala HEPP, EIA Report, page 136

Stakeholder Sustainable Development Matrix". Hence, the preliminary sustainable development matrix did not revisit resulting a change.

## SECTION G. Sustainability Monitoring Plan

| | | |
|---|---|---|
| No | | 1 |
| Indicator | | **Air Quality** |
| Mitigation measure | | N/A |
| Chosen parameter 1.1 | | tSO2 reduction (Sulfur Dioxide) |
| Current situation of parameter 1.1 | | SO2 is emitted by grid connected thermal power plants |
| Future target for parameter 1.1 | | SO2 emission reduction in parallel to generated electricity by proposed project activity |
| Chosen parameter 1.2 | | tNOx reduction(Nitrogen Oxides) |
| Current situation parameter 1.2 | | NOx is emitted by grid connected thermal power plants |
| Future target for parameter 1.2 | | NOx emission reduction in parallel to generated electricity by proposed project activity |
| Way of monitoring | | |
| | How | The project, by replacing electricity from fossil fuel consumption and the related fuel consumption, reduces the baseline $SO_2$ and NOx emissions from electricity generation. The reduction of $SO_2$ and NOx emissions will be calculated by multiplying net electricity generation of the PO with the $SO_2$ and NOx intensities. The intensities of $SO_2$ and NOx can be provided from the division of $SO_2$ and NOx emission amounts –referred from National GHG inventory of Turkey to net electricity system generation of Turkey referred from TEIAS statistical data. (http://www.teias.gov.tr/istatistik2009/23.xls ) |
| | When | Annually |
| | By who | The carbon consultant |

| | |
|---|---|
| No | 2 |
| Indicator | **Water Quality and Quantity** |
| Mitigation measure | The project owner guarantees to release the "minimum water" with respect to regulations. The amount of minimum water to sustain the fauna, flora and the agriculture in the basin is estimated and monitored by the State Water Works (DSI). The assembly of flow monitoring stations before and after the weir structure is an obligation as per regulations. The monitoring of flow rates is done by the way of flow monitoring stations named as "AGİ" in TR. These stations directly connected to General Directorate of State Hydraulic Works with an online system. Measurement and monitoring of flow is achieved by General Directorate. |
| Chosen parameter | Water Flow between the regulator and the tail race (l/sec) |
| Current situation of parameter | Natural water flow in the river |
| Future target for parameter | |

| | Minimum (ecological) flow | |
|---|---|---|
| **Months** | **Zala Weir** | **Derivation Structure** |
| **January** | 330 l/sec | 350 l/sec |
| **February** | 330 l/sec | 350 l/sec |
| **March** | 1043 l/sec | 1100 l/sec |
| **April** | 1043 l/sec | 1100 l/sec |
| **May** | 1043 l/sec | 1100 l/sec |
| **June** | 330 l/sec | 350 l/sec |

# GOLD STANDARD PASSPORT

| | | | | |
|---|---|---|---|---|
| | | **July** | 330 l/sec | 350 l/sec |
| | | **August** | 330 l/sec | 350 l/sec |
| | | **September** | 330 l/sec | 350 l/sec |
| | | **October** | 330 l/sec | 350 l/sec |
| | | **November** | 330 l/sec | 350 l/sec |
| | | **December** | 330 l/sec | 330 l/sec |
| Way of monitoring | How | Monitored via the River Observation Station placed to the riverbed. | | |
| | When | Annually | | |
| | By who | Project owner | | |

| | | |
|---|---|---|
| No | | 3 |
| Indicator | | **Quality of employment** |
| Mitigation measure | | technical staff will be trained and certified if required |
| Chosen parameter | | personnel participating the trainings |
| Current situation of parameter | | None |
| Future target for parameter | | All staff to be trained for health and safety issues and relevant staff to be trained for technical issues. |
| Way of monitoring | How | Through the evaluation of training records |
| | When | Annually |
| | By who | The carbon consultant and the project owner |

| | | |
|---|---|---|
| No | | 4 |
| Indicator | | **Livelihood of the poor** |
| Mitigation measure | | Local people have priority in recruitment. |
| Chosen parameter | | People employed from local community |
| Current situation of parameter | | none |
| Future target for parameter | | About 5 people is planned to be employed during operation. The number of locally employed staff will be estimated in accordance with the skills of local people and what is required. |
| Way of monitoring | How | Through evaluation of local people employed, contracts with and invoices |
| | When | Annually |
| | By who | The carbon consultant and the project owner |

| | | |
|---|---|---|
| No | | 5 |
| Indicator | | **Human and institutional capacity** |
| Mitigation measure | | The trainings provided to staff, and improved knowledge of local people |
| Chosen parameter | | Improvement in the skills of plant personnel who participates the trainings at operation stage. |
| Current situation of parameter | | None |
| Future target for parameter | | At the construction stage, employees will be trained and have training certificates. At the operation stage all employees hired for operation will be trained as well. |
| Way of monitoring | How | Through the evaluation of training certificates |
| | When | Annually |
| | By who | The carbon consultant and the project owner |

| | |
|---|---|
| No | 6 |
| Indicator | **Quantitative employment and income generation** |
| Mitigation measure | The project owner is committed to prioritize the local workers in selecting the construction workers, planned to hire during operation. |

| | | |
|---|---|---|
| Chosen parameter | | Annual wage rate to workers |
| Current situation of parameter | | N/A |
| Future target for parameter | | 5 workers during operation, the number from local will be estimated in accordance with skills of probable staff. |
| Way of monitoring | How | Annual wage rate to workers will be recorded. |
| | When | Annually |
| | By who | The carbon consultant and the project owner |

| | | |
|---|---|---|
| No | | 7 |
| Indicator | | **Balance of payments** |
| Mitigation measure | | Not required |
| Chosen parameter | | Amount of avoided fossil fuel (i.e. natural gas) imported |
| Current situation of parameter | | In the year 2009, 96094.7 GWh [130]electricity generated by firing $20.978 \times 10^9 m^3$ [131] of natural gas. Hence, 0.2 $m^3$/ KWh is consumed. |
| Future target for parameter | | 18.606 GWh is the expected electricity generation annually which corresponds to generation by consuming $3721.4 \times 10^3$ $m^3$ natural gas. $3721.4 \times 10^3$ $m^3$ natural gas import will be avoided by implementation of proposed project in the event of achievement of expected electricity generation. |
| Way of monitoring | How | Through comparing electricity generated by the proposed project and natural gas and liquid fuel amount that would be used to produce the same amount of electricity .<br>The positive effect of this project to this indicator will be monitored by calculation of avoided natural gas import amount for electricity production.<br>The share of electricity generation from natural gas , total natural gas amounts used for electricity production and electricity production amount of natural gas will be taken from official statistics. |
| | When | Annually |
| | By who | The carbon consultant |

## SECTION H. Additionality and conservativeness

This section is only applicable if the section on additionality and/or your choice of baseline does not follow Gold Standard guidance

### H.1. Additionality

Additionality assessment is performed according to the "Tool for the demonstration and assessment of additionality, version 06.0.0" approved by UNFCCC. The detailed information is available in PDD

### H.2. Conservativeness

Conservative approach has been followed in calculating baseline emission factors and investment analysis sections as detailed in PDD.

[130] Retrieved from http://www.teias.gov.tr/istatistik2009/37(06-09).xls
[131] Retrieved from http://www.teias.gov.tr/istatistik2009/44.xls

# GOLD STANDARD PASSPORT

## ANNEX 1 ODA declaration

Please find the Official Development Assistance Declaration template below This document should be signed, scanned and submitted as an Annex to your Gold Standard Passport.

**Letterhead of Project Owner**
**Date**
**Project reference** Zala HEPP (5,76 MW) Kastamonu , GS 933
**To: Gold Standard Foundation**

**Declaration of Non-Use of Official Development Assistance by Project Owner**

[*Project Owner*] Ahmet Hakan Elek. Üretim A.Ş.
As Project Owner of the above-referenced project, acting on behalf of all project participants, I now make the following representations

[*Authorised Representative*:] İbrahim Usta
I hereby declare that am duly and fully authorised by the project owner of the above-referenced project, acting on behalf of all project participants, to make the following representations on Project Proponent's behalf·

**I. Gold Standard Documentation**
I am familiar with the provisions of Gold Standard Documentation relevant to Official Development Assistance (ODA) I understand that the above-referenced project is not eligible for Gold Standard registration if the project receives or benefits from Official Development Assistance under the condition that some or all credits coming out of the project are transferred to the ODA donor country. I now expressly declare that no financing provided in connection with the above-referenced project has come from or will come from ODA that has been or will be provided under the condition, whether express or implied, that any or all of the credits [CERs, ERUs or VERs] issued as a result of the project's operation will be transferred directly or indirectly to the country of origin of the ODA.

**II. Duty to Notify Upon Discovery**
If learn or if am given any reason to believe at any stage of project design or implementation that ODA has been used to support the development or implementation of the project, or that an entity providing ODA to the host country may at some point in the future benefit directly or indirectly from the credits generated from the project as a condition of investment, I will make this known to the Gold Standard immediately

**III. Sanctions.** I am fully aware that under Section 10 of the Gold Standard Terms and Conditions sanctions and damages may be incurred for the provision of false information related to Projects and/or Gold Standard credits.

**Signed**·
**Name:** Özkan Alıoğlu
**Title:** Civil Engineer - Company Coordinator.
**On behalf of**· İbrahim Usta

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Gold Standard Annexes to Toolkit Version 2.1 effective 1 July 2009 – use together with Versions 2.1 of the Gold Standard Requirements and Toolkit

Developed by Ecofys, TÜV-SÜD and FIELD

# GOLD STANDARD PASSPORT

| ANNEX 2 | Participant List |
|---|---|

KASTAMONU İLİ ARAÇ İLÇESİ ZALA REGÜLÂTÖRÜ VE HES PROJESİ PAYDAŞ TOPLANTISI KATILIM LİSTESİ 27.07.2010

| AD-SOYAD | KURUM | ADRES | TEL/FAKS | E-POSTA | İMZA |
|---|---|---|---|---|---|
| Necati Tıkbaş | | Yenice köyü Araç | | | |
| Saim Bozlak | | Yenice Köyü ARAÇ | | | |
| Yunus Zilif | | Yenice Köyü Araç | | | |
| Hasan İnal | | Yenice köyü | | | |
| Yusuf Görüdü | | Yenice Köyü | | | |
| Ahmet Zilif | | Yenice | | | |
| Rıfat Arslan | | Safiyye Köyü | | | |

KASTAMONU İLİ ARAÇ İLÇESİ ZALA REGÜLÂTÖRÜ VE HES PROJESİ PAYDAŞ TOPLANTISI KATILIM LİSTESİ 27.07.2010

| AD-SOYAD | KURUM | ADRES | TEL/FAKS | E-POSTA | İMZA |
|---|---|---|---|---|---|
| Turgut Tıkbaş | | Yenice köyü | | | |
| Necati Şelin | | Yenice köyü | | | |
| Rahmi MENTEŞE | | Serpan | | | |
| Hüseyin Şatıcı | | Serpan | | | |
| Selahattin Şatıcı | | Serpan | | | |
| İmdat Kabak | | Yenice köyü | | | |

# GOLD STANDARD PASSPORT

**KASTAMONU İLİ ARAÇ İLÇESİ ZALA REGÜLÂTÖRÜ VE HES PROJESİ PAYDAŞ TOPLANTISI KATILIM LİSTESİ 27.07.2010**

| AD-SOYADI | KURUM | ADRES | TEL/FAKS | E-POSTA | İMZA |
|---|---|---|---|---|---|
| Murat BOZLAK | | Serice Köyü | 362 1390 | | |
| Hafiz Gedik | | " " | 0366 362 1263 | | |
| F. Fikri ÖZDEMİR | Belediye Bşk.v. | | 0366 362 1012 | | |
| İhsan Yazan | Gazeteci | Araç | 0366 362 2420 | | |
| Satılmış Sarıkaya | İnş. Müh. | Kast. Cad. Dizci İş merkezi Kat 1 No:4 ARAÇ | 0366 362 1211 0366 362 1764 | satilmisarac@hotmail.com | |
| Sema Sarıkaya | Bel. mec. üyesi | " | 0 366 362 1820 | " | |
| Hilmi Yazıcıoğlu | Ziraat Odası Meclis Bşk. | Büro Yeni Mah. | 0.366 362 1188 | / | |

# GOLD STANDARD PASSPORT

| ANNEX 3 | Blind SDM (Sustainability Questionnaire) |
|---|---|

**SÜRDÜRÜLEBİLİRLİK ANKETİ**

**Proje İsmi:** Zole Regülatörü ve Hidro elektrik Santr
**Tarih:** 27.07.2010
**Katılımcı Adı Soyadı:** Cevdet İNAC

| Gold Standard Sürdürülebilirlik Göstergeleri | Projenin olumlu etkileri olacağını düşünüyorsanız "+", olumsuz ise "-", etkisi olmayacağını düşünüyorsanız "0" yazınız | Açıklama |
|---|---|---|
| Su kalitesi | Düzelmiş | |
| Hava kalitesi | Zarar Vermez | |
| Diğer kirleticiler | Sınırlandırılarak kalmış | |
| Toprak kalitesi | Hayvanlar nedeni ölür | |
| Biyoçeşitlilik | Toprak kalitesi düzelmiş | |
| İş kalitesi | — | |
| Teknolojik Gelişim | — | |
| Geçim kaynakları | Etkilemez | |
| Düşük maliyetli temiz enerjiye erişim | Pilsine bakılandan | |
| İnsan ve kurumsal kapasite | Tasarruf olur | |
| İstihdam | Etkilemez | |
| Yatırım ve ödeme dengeleri | — | |
| Teknoloji transferi ve teknolojik olarak kendine yetebilme | Teknolojik ilerleme Mevcut | |

**SÜRDÜRÜLEBİLİRLİK ANKETİ**

**Proje İsmi:**
**Tarih:** 27.07.2010
**Katılımcı Adı Soyadı:** Yusuf Gürbüz

| Gold Standard Sürdürülebilirlik Göstergeleri | Projenin olumlu etkileri olacağını düşünüyorsanız "+", olumsuz ise "-", etkisi olmayacağını düşünüyorsanız "0" yazınız | Açıklama |
|---|---|---|
| Su kalitesi | | |
| Hava kalitesi | | |
| Diğer kirleticiler | | |
| Toprak kalitesi | | |
| Biyoçeşitlilik | | |
| İş kalitesi | | |
| Teknolojik Gelişim | | |
| Geçim kaynakları | | |
| Düşük maliyetli temiz enerjiye erişim | | |
| İnsan ve kurumsal kapasite | | |
| İstihdam | | |
| Yatırım ve ödeme dengeleri | | |
| Teknoloji transferi ve teknolojik olarak kendine yetebilme | | |

Not: Gold Standart Sürdürülebilirlik Göstergeleri hakkında bilgim olmadığı için projenin olumlu veya olumsuz olacağı hakkında bir kanaat beyanımda yok. Bu yüzden "Açıklama" kısmı hariç hepsini boş bırakıyorum.

# GOLD STANDARD PASSPORT

**SÜRDÜRÜLEBİLİRLİK ANKETİ**

**Proje İsmi:** Zalar Reguleterinin ve HH Hidroelektrik santrali

**Tarih:** 27.07.2010

**Katılımcı Adı Soyadı:** Rahmi Mentese

| Gold Standard Sürdürülebilirlik Göstergeleri | Projenin olumlu etkileri olacağını düşünüyorsanız "+", olumsuz ise "-", etkisi olmayacağını düşünüyorsanız "0" yazınız | Açıklama |
|---|---|---|
| Su kalitesi | Etkilen | |
| Hava kalitesi | Etkileme | |
| Diğer kirleticiler | Azalacak Bunu | |
| Toprak kalitesi | Etkilen | |
| Biyoçeşitlilik | Etkilen | |
| İş kalitesi | Faydalı Sağlar | |
| Teknolojik Gelişim | — | |
| Geçim kaynakları | Etkileme | |
| Düşük maliyetli temiz enerjiye erişim | Olumlu | |
| İnsan ve kurumsal kapasite | Etkileme | |
| İstihdam | Etkileme | |
| Yatırım ve ödeme dengeleri | Yararı Sağlar | |
| Teknoloji transferi ve teknolojik olarak kendine yetebilme | — | |

**SÜRDÜRÜLEBİLİRLİK ANKETİ**

**Proje İsmi:**

**Tarih:**

**Katılımcı Adı Soyadı:** Necati Tütüncü

| Gold Standard Sürdürülebilirlik Göstergeleri | Projenin olumlu etkileri olacağını düşünüyorsanız "+", olumsuz ise "-", etkisi olmayacağını düşünüyorsanız "0" yazınız | Açıklama |
|---|---|---|
| Su kalitesi | | |
| Hava kalitesi | | |
| Diğer kirleticiler | | |
| Toprak kalitesi | | Bozulacak |
| Biyoçeşitlilik | | |
| İş kalitesi | | Düşecek |
| Teknolojik Gelişim | | Azalacak |
| Geçim kaynakları | | |
| Düşük maliyetli temiz enerjiye erişim | | |
| İnsan ve kurumsal kapasite | | |
| İstihdam | | |
| Yatırım ve ödeme dengeleri | | |
| Teknoloji transferi ve teknolojik olarak kendine yetebilme | | |

# GOLD STANDARD PASSPORT

**SÜRDÜRÜLEBİLİRLİK ANKETİ**

**Proje İsmi:**

**Tarih:**

**Katılımcı Adı Soyadı:**

| Gold Standard Sürdürülebilirlik Göstergeleri | Projenin olumlu etkileri olacağını düşünüyorsanız "+", olumsuz ise "-", etkisi olmayacağını düşünüyorsanız "0" yazınız | Açıklama |
|---|---|---|
| Su kalitesi | + | |
| Hava kalitesi | - | |
| Diğer kirleticiler | 0 | |
| Toprak kalitesi | - | |
| Biyoçeşitlilik | - | |
| İş kalitesi | - | |
| Teknolojik Gelişim | - | |
| Geçim kaynakları | - | |
| Düşük maliyetli temiz enerjiye erişim | - | |
| İnsan ve kurumsal kapasite | - | |
| İstihdam | 0 | |
| Yatırım ve ödeme dengeleri | 0 | |
| Teknoloji transferi ve teknolojik olarak kendine yetebilme | - | |

**SÜRDÜRÜLEBİLİRLİK ANKETİ**

**Proje İsmi:**

**Tarih:**

**Katılımcı Adı Soyadı:**

| Gold Standard Sürdürülebilirlik Göstergeleri | Projenin olumlu etkileri olacağını düşünüyorsanız "+", olumsuz ise "-", etkisi olmayacağını düşünüyorsanız "0" yazınız | Açıklama |
|---|---|---|
| Su kalitesi | 0 | |
| Hava kalitesi | 0 | |
| Diğer kirleticiler | - | |
| Toprak kalitesi | - | |
| Biyoçeşitlilik | - | |
| İş kalitesi | - | |
| Teknolojik Gelişim | 0 | |
| Geçim kaynakları | - | |
| Düşük maliyetli temiz enerjiye erişim | 0 | |
| İnsan ve kurumsal kapasite | 0 | |
| İstihdam | 0 | |
| Yatırım ve ödeme dengeleri | - | |
| Teknoloji transferi ve teknolojik olarak kendine yetebilme | - | |

# GOLD STANDARD PASSPORT

**SÜRDÜRÜLEBİLİRLİK ANKETİ**

**Proje İsmi:**

**Tarih:**

**Katılımcı Adı Soyadı:**

| Gold Standard Sürdürülebilirlik Göstergeleri | Projenin olumlu etkileri olacağını düşünüyorsanız "+", olumsuz ise "-", etkisi olmayacağını düşünüyorsanız "0" yazınız | Açıklama |
|---|---|---|
| Su kalitesi | 0 | |
| Hava kalitesi | 0 | |
| Diğer kirleticiler | 0 | |
| Toprak kalitesi | — | |
| Biyoçeşitlilik | — | |
| İş kalitesi | — | |
| Teknolojik Gelişim | — | |
| Geçim kaynakları | — | |
| Düşük maliyetli temiz enerjiye erişim | 0 | |
| İnsan ve kurumsal kapasite | — | |
| İstihdam | — | |
| Yatırım ve ödeme dengeleri | — | |
| Teknoloji transferi ve teknolojik olarak kendine yetebilme | — | |

**SÜRDÜRÜLEBİLİRLİK ANKETİ**

**Proje İsmi:** Zola rehabilitasyon

**Tarih:** 29.03.2010

**Katılımcı Adı Soyadı:** Sema Sarıbaş

| Gold Standard Sürdürülebilirlik Göstergeleri | Projenin olumlu etkileri olacağını düşünüyorsanız "+", olumsuz ise "-", etkisi olmayacağını düşünüyorsanız "0" yazınız | Açıklama |
|---|---|---|
| Su kalitesi | | Bu sayılan faktörler dahilinde bu projenin çevresel olarak olumlu sonuçlar doğuracağını |
| Hava kalitesi | | |
| Diğer kirleticiler | | |
| Toprak kalitesi | | |
| Biyoçeşitlilik | | |
| İş kalitesi | | |
| Teknolojik Gelişim | | |
| Geçim kaynakları | | |
| Düşük maliyetli temiz enerjiye erişim | | |
| İnsan ve kurumsal kapasite | | |
| İstihdam | | |
| Yatırım ve ödeme dengeleri | | |
| Teknoloji transferi ve teknolojik olarak kendine yetebilme | | |