## **Annex 4. Traffic Control Management Plan**

The purpose of this management plan is to ensure that construction of the Scheme components does not adversely affect road users and other sensitive receptors. This Traffic Control Management Plan (TCMP) therefore identifies the potential impacts and appropriate measures to mitigate them.

Prior to the commencement of construction, the contractor(s) shall use the TCMP as the basis for undertaking a detailed Traffic Assessment (TA) and preparing a detailed TCMP; this will identify specific measures to mitigate any predicted impacts. The contractor's (or contractors') TCMP shall include detailed procedures that demonstrate how the impacts of traffic on communities have been taken into consideration. The contractor(s) shall develop and submit:

- procedures at the start of the construction phase; and
- detailed project-specific procedures that specify how the requirements of their TCMP will be implemented to the satisfaction of the appropriate traffic authorities.

The contractor(s) shall regularly update their TCMP as the construction method is developed and vehicle movement and timing requirements are identified in detail. The contractor(s) shall consult with the relevant government agencies to identify where Project plans can complement existing road development plans at the district and provincial level. The contractor(s) will also consult with the leaders of any communities that will suffer a significant increase in traffic in order to identify alternative routes where possible, or appropriate mitigation measures.

The contractor(s) will:

- identify those responsible for carrying out and managing the procedures;
- reference the procedures and activities the contractor(s) will develop and implement:
- identify work to be undertaken on the roads prior to construction activities to upgrade or stabilize the roads if necessary;
- identify the routes that will be used with the estimated numbers of traffic movements, speeds and times of travel;

- justify where a route has to pass through residential areas and the measures that will be used to ensure the safety of the community and minimize the nuisance impact of traffic movements;
- identify how existing road development plans have been taken into account in the identification of routes and road restoration measures;
- identify the program of road restoration measures that are likely to be required post construction;
- address how the Contractor(s) can reduce the exposure of vehicle drivers, their passengers and other road users from the hazards of road-related accidents;
- identify (and adopt to the maximum extent feasible) all reasonably practicable alternatives to road transportation in order to reduce the number of trucks on the roads; and
- provide details of audits and reviews of the components of the project transport system.

Table 1.Traffic Control Management Plan.

| _                  |  |
|--------------------|--|
| Issue              | Mitigating/Monitoring Activity   |
| Access to          |  |
| construction areas | location of the access road that will be constructed specifically for the                |
| construction areas | Scheme:  |
|                    | <ul> <li>environmentally sensitive areas; and</li> </ul>                                 |
|                    | pedestrians.   |
|                    | Other measures for mitigating the impact of access roads are as follows:                 |
|                    | Access will be via specified routes, which will be agreed with the                       |
|                    | relevant authorities.  |
|                    | <ul> <li>Existing, upgradeable roads will be used where practicable, to avoid</li> </ul> |
|                    | the need to construct new roads.   |
|                    | Access roads to previously inaccessible sensitive areas will be avoided.                 |
|                    | If the Contractor requires additional routes, a specific proposal will                   |
|                    | be submitted to the relevant authorities, if required, for consideration                 |
|                    | and approval.  |
|                    | Suitable measures will be implemented to avoid damage to public                          |
|                    | roads and any damage will be repaired to an equal or better                              |
|                    | standard in a timely manner.   |
|                    | The Contractor will remove all temporary roads or road                                   |
|                    | enlargements, except where local communities or landowners                               |
|                    | request that a new road be left in place.  |
|                    | Temporary access roads will be kept free from deposits to prevent                        |
|                    | silt, or other materials from entering drains or watercourses. Access                    |
|                    | routes to be used by construction traffic will be properly signposted.                   |
|                    | This shall be sufficient to prevent vehicles from leaving the                            |
|                    | designated routes and ensure that the appropriate speed limits are                       |
|                    | enforced particularly through residential areas.   |
|                    | Access and site roads will be maintained in good condition.                              |
|                    | Temporary roads will be removed when no longer needed and will                           |

|                      | <ul> <li>be reinstated. All damage to existing roads will also be reinstated.</li> <li>Any additional routes will be selected to avoid ecologically sensitive</li> </ul>  |
|----------------------|---|
|                      | areas, and to minimize erosion.   |
|                      | <ul> <li>The Contractor will liaise with the appropriate regulatory authorities<br/>to gain approval to use, and regularly inspect, the road infrastructure.</li> </ul>   |
| Routing of           | <ul> <li>Relevant authorities will be consulted to agree on specific routes for<br/>use by construction traffic to avoid any sensitive residential areas</li> </ul>   |
| construction traffic | and unsuitable parts of the road network.   |
|                      | <ul> <li>Precautions will be taken by the Contractor to avoid damage to the<br/>public highways used by vehicles or other items of equipment.<br/>Timber mats, tyres or steel plates will be laid as necessary, in<br/>particular under tracked equipment. Any road damage will be<br/>repaired.</li> </ul>   |
|                      | <ul> <li>Advance warning will be given of any proposed road diversions and<br/>closures.</li> </ul>   |
|                      | <ul> <li>The Contractor should consider whether to use buses to transport<br/>workers to the construction site.</li> </ul>  |
|                      | <ul> <li>The Contractor will comply with all statutory vehicle limits (width,<br/>height, loading, gross weight) and any other statutory requirement.</li> </ul>  |
| Temporary traffic    | <ul> <li>Traffic flows will be timed, wherever practicable, to avoid periods of<br/>heavy traffic flow along main roads.</li> </ul>   |
| control and          | <ul> <li>In addition, the Contractor will not commence any work that affects</li> </ul>   |
| management           | the public highway until all agreed traffic safety and management<br>measures essential for the works are accepted and agreed with the<br>relevant authorities.   |
|                      | <ul> <li>In terms of traffic control, vehicles will be prohibited from reversing unattended into the construction site. Vehicles and plant shall enter and exit the site in a forward direction, as far as possible. In addition, the Contractor will ensure that all heavy goods vehicles are equipped with audible reversing alarms.</li> </ul>   |
|                      | <ul> <li>Clear signs, flagmen and signals will be set up where necessary. Where temporary traffic signals are required, the details and locations of the signs shall be discussed with the relevant authorities. The signs will be fixed safely and securely to ensure that they do not become detached or dislocated, and will be visible and comprehensible by all. The Contractor will also carry out maintenance checks to clean and rescuer signs if necessary.</li> <li>Appropriate supervision will be provided by the Contractor to control the flow of traffic when machinery needs to cross roads.</li> </ul> |
|                      | <ul> <li>Liaison with the police and other authorities will occur prior to the<br/>movement of any abnormal loads. In particular, liaison with the<br/>relevant Highway Authority will occur prior to transportation on major<br/>highways and motorways.</li> </ul>  |
|                      | <ul> <li>Access to commercial and residential properties shall be maintained<br/>and speed limits will be established and enforced over all<br/>construction traffic routes.</li> </ul>   |
|                      | <ul> <li>Where roads used by children to reach schools are used by<br/>construction traffic, road safety education will be provided at schools.</li> <li>Vehicle traffic will be prohibited during hours that children are<br/>travelling to and from school.</li> </ul>  |
|                      | Ambulances and fire services will be consulted regarding road diversions. Road diversions will not increase the response time of  |
|                      | <ul> <li>these services to local communities.</li> <li>Access to residential and commercial properties will be maintained.</li> </ul>   |
|                      | <ul> <li>If road closures are required, diversions will be planned and<br/>communicated to the authorities (including emergency services and<br/>public transport providers) and affected communities in advance (via</li> </ul>  |

|                    | the pre-construction community meeting) and will be properly  |
|--------------------|---|
|                    | signposted. Crossing for pedestrians and animals will be provided to avoid the need for a diversion. No diversion will be permitted that prevents a public transport service from continuing or requires a diversion of more than 1km for vehicles or a diversion of more than 500m for pedestrians or livestock. Notification periods for road closures are as follows:  o two weeks minimum notice on closure of up to 28 days; |
|                    | <ul> <li>one month minimum notice on closure of 28 days to three months;</li> <li>o threemonths notice for closure over three months or for</li> </ul>  |
|                    | permanent closure.  |
|                    | <ul> <li>Education on traffic safety will be provided by the Community Liaison<br/>Officer(s) (CLOs) to communities not normally subjected to major<br/>infrastructure construction.</li> </ul>   |
|                    | <ul> <li>Fuel use will be minimized during the transportation of construction<br/>materials and personnel. A fuel use assessment will be undertaken,<br/>in conjunction with safety assessments, at the outset of the<br/>construction program.</li> </ul>  |
|                    | A 30km/h speed limit shall be established and enforced over all roads on site.  |
| Parking facilities | Signposted, parking facilities shall be provided at accessible locations on the road network.   |
|                    | The Contractors will ensure that part of the Construction Site is set aside for the parking of emergency service vehicles. The Contractor is expected to make provision for a dedicated parking area on the construction base for the private vehicles of construction personnel.   |
| Maintaining        | The Contractor is expected to keep highways free from mud and   |
| Highways           | dust and to ensure that no vehicle or other items of equipment leaving the construction base or working width, deposit soil, debris or rock on public highways or public right of ways.   |
|                    | <ul> <li>Measures will be implemented to ensure that the transport of mud<br/>and dust from the site onto public highways and roads is limited.</li> <li>Such measures may include:         <ul> <li>paving the access road; and</li> </ul> </li> </ul>   |
|                    | the use of hard-core surfaces on access roads.  |
|                    | <ul> <li>the provision of an easily cleaned hardstanding area within the<br/>construction site for vehicles entering, parking and leaving.</li> </ul>   |
|                    | <ul> <li>the appointment of site personnel to clean the construction<br/>hardstanding area and to remove any mud or debris deposited on<br/>the public highways;</li> </ul>   |
|                    | the provision to clean hardstanding areas and to clean any mud or<br>debris deposited by work vehicles on roads or footways in the vicinity<br>of the construction site;  |
|                    | fully sheeting all works vehicles carrying potentially dusty material or likely to deposit loose materials on the public highway during transit;  |
|                    | the Contractor shall clean and maintain temporary and permanent   |
| Road Related       | roads, and shall remove mud and debris from public roads.  Hazards to personnel associated with vehicle transportation, both on- and  |
| Accidents          | off-road, will present one of the most significant risk exposures of the  |
|                    | Project. Accordingly, the Contractor shall be expected to develop and implement management systems and procedures that will provide the   |
|                    | highest level of control over these hazards. Accordingly, the Contractor's  |
|                    | procedures shall specifically cover arrangements for the following important aspects:   |
|                    | the source of and number of qualified drivers required;   |
|                    | training and approval requirements for drivers;   |

- hours of driving and rest periods;
- security arrangements for drivers, vehicles and loads;
- arrangements for driver communication with control points and vehicle equipment;
- language/communication issues;
- the source of suitable vehicles (e.g. quality and specification);
- the number of vehicles required;
- the program for preventative vehicle maintenance;
- vehicle routes, route planning and alternative routes;
- overall vehicle movements;
- procedures for the emergency recovery of vehicles;
- an appraisal of the social impact of vehicles in the local community;
- procedures for spot checks and audits of the transport system and for reporting problems.
- pre-use vehicle inspections shall be completed and recorded on the approved form;
- all drivers shall be trained and evaluated in defensive and off-road vehicle operation.

# Vehicle Standards and Maintenance

The Contractor shall comply with all other aspects of the Construction Health and Safety Management Plan, which include requirements for vehicle standards and maintenance. The contractor shall also ensure that:

- All vehicles shall be maintained so that their noise and emissions do not cause nuisance to workers or local people.
- New vehicles: vehicles/equipment purchased 'as new' after contract award shall comply with the appropriate emission standards in force on the purchase date.
- Older vehicles: vehicles/equipment not purchased 'as new' after contract award shall be maintained so that noise and emissions levels are no greater than when the vehicle/ equipment was new.

The contractor shall produce method statements, as part of their TCMP, to cover routine maintenance and to minimize equipment emissions. Routine maintenance shall be to a high standard to ensure that vehicles are safe and that emissions and noise are minimized. Method statements shall require regular maintenance of diesel engines to ensure that emissions are minimized, for example, by cleaning fuel injectors.

## **Annex 5. Risk Assessments**

Assessments will take into account environmental as well as health and safety hazards and will include area and task-based assessments. They will be performed by trained staff and each hazard will be considered in the context of its effect upon the activities regarding:

- materials/substances;
- equipment;
- the workplace;
- people;
- procedures; and
- the environment.

This risk assessment approach will consider the hazard, harm, potential severity, probability of occurrence, risk rating, control measures and residual risk. These assessments will also detail action dates and be reviewed on a regular basis. Table 2 presents the Accidents Risk Assessment Management Plan.

Table 2.Accidents Risk Assessment Management Plan.

|                         | Risk                            |                        |  |                               | Assessing the Risk               |                          |
|-------------------------|---------------------------------|------------------------|--|-------------------------------|----------------------------------|--------------------------|
| Hazard                  | Receptor                        | Pathway                | Managing the Risk  | Probability<br>of<br>Exposure | Consequence                      | What is the overall risk |
|                         |                                 |                        | Fuel Handling  |                               |                                  |                          |
| Spillage of diesel      | • Soil                          | Storage tank leak or   | Training of staff;                                       | Unlikely                      | Ground contamination             | Not significant          |
|                         | • Air                           | transfer spill         | <ul> <li>Impervious surfaces;</li> </ul>                 |                               |                                  |                          |
|                         | <ul> <li>Groundwater</li> </ul> |                        | <ul> <li>Routine operator checks; and</li> </ul>         |                               |                                  |                          |
|                         |                                 |                        | Clean up response team.                                  |                               |                                  |                          |
| Air Pollution Control   |                                 |                        |  |                               |                                  |                          |
| Flue gas leak           | • Air                           | Overpressure, material | <ul> <li>Design and fabrication standards;</li> </ul>    | Very unlikely                 | Release of toxic combustion      | Not significant          |
|                         |                                 | defect,                | <ul> <li>Inspection and maintenance program;</li> </ul>  |                               | products to plant enclosures and |                          |
|                         |                                 | corrosion/erosion      | <ul> <li>Controls and alarms for pressure;</li> </ul>    |                               | potentially to atmosphere or via |                          |
|                         |                                 |                        | <ul> <li>Continuous emission monitors; and</li> </ul>    |                               | stack                            |                          |
|                         |                                 |                        | <ul> <li>Prompt shutdown of equipment.</li> </ul>        |                               |                                  |                          |
| Leak/ spill of water    | <ul> <li>Groundwater</li> </ul> | Storage container leak | <ul> <li>Training in unloading practices</li> </ul>      | Very unlikely                 | Potential for contamination of   | Not significant          |
| treatment chemicals     |                                 | or transfer spill      | <ul> <li>Design standards</li> </ul>                     |                               | groundwater                      |                          |
|                         |                                 |                        | <ul> <li>Impervious surfaces</li> </ul>                  |                               |                                  |                          |
| Power Generation System | Ä                               |                        |  |                               |                                  |                          |
| Leak of ion             | • Air                           | Storage container      | <ul> <li>Bunded storage vessels;</li> </ul>              | Very unlikely                 | Potential contamination of soil, | Not significant          |
| exchange                | • Soil                          | leak or transfer       | <ul> <li>Routine inspection and maintenance</li> </ul>   |                               | groundwater and surface water,   |                          |
| regeneration            | <ul> <li>Groundwater</li> </ul> | spill                  | program;   |                               | and release of HCl fumes         |                          |
| chemicals               | <ul> <li>Surface</li> </ul>     |                        | <ul> <li>Minimum of flanged connections;</li> </ul>      |                               |                                  |                          |
| (NaOH, HCI)             | Water                           |                        | <ul> <li>Tanks fitted with high level alarms;</li> </ul> |                               |                                  |                          |
|                         |                                 |                        |  |                               |                                  |                          |

|                 |                                |               | Response procedure   |                        |              |                            |
|-----------------|--------------------------------|---------------|--|------------------------|--------------|----------------------------|
|                 |                                |               | <ul> <li>Fire detection and fire protection systems</li> </ul>   |                        |              |                            |
|                 |                                |               | Routine operator checks  |                        |              |                            |
|                 |                                |               | Design standards   |                        |              |                            |
|                 |                                |               | <ul> <li>Minimum of flanged connections</li> </ul>               |                        |              |                            |
| Moderate        | products                       |               | Oil collector installed  | Source                 |              | oil leak                   |
| Slight          | toxic combustion               | Very unlikely | <ul> <li>Use of fire-proof lube oil</li> </ul>                   | Oil leak plus ignition | Air          | Fire from ignition of lube |
|                 |                                |               | Emergency Plan   |                        |              |                            |
|                 |                                |               | <ul> <li>Equipment within concrete structure</li> </ul>          |                        |              |                            |
|                 |                                |               | <ul> <li>Fire detection and fire protection systems</li> </ul>   |                        |              |                            |
|                 |                                |               | emergency shutdown valves  | or vibration           |              |                            |
|                 | elsewhere in the power plant   |               | <ul> <li>Vibration sensors, isolation valves,</li> </ul>         | fabrication defect     |              |                            |
|                 | consequences through damage    |               | <ul> <li>Inspection and maintenance program;</li> </ul>          | erosion,               |              |                            |
| Moderate        | causing further adverse        |               | <ul> <li>Implementation of correct codes of practice;</li> </ul> | corrosion/             |              | failure                    |
| Slight          | Disintegration of the turbine, | Unlikely      | <ul> <li>Specification of equipment;</li> </ul>                  | Material defects,      | Equipment    | Turbine equipment          |
|                 |                                |               |  |                        |              | mechanical failure         |
|                 |                                |               | Routine operator checks.   |                        |              | machinery or               |
|                 |                                |               | <ul> <li>Anti-vibration mountings;</li> </ul>                    | Vibration              |              | balance rotating           |
| Not significant | Transmitted vibration          | Very unlikely | <ul> <li>Alarm and shutdown systems;</li> </ul>                  | Transmitted            | Installation | Vibration from out of      |
|                 |                                |               | deliveries/unloading operations.                                 |                        |              |                            |
|                 |                                |               | <ul> <li>Size of deliveries to reduce number of</li> </ul>       |                        |              |                            |
|                 |                                |               | <ul> <li>Training in unloading practices;</li> </ul>             |                        |              |                            |
|                 |                                |               | <ul> <li>Localized catchment volume;</li> </ul>                  |                        |              |                            |
|                 |                                |               | <ul> <li>Impervious operational areas indoors;</li> </ul>        |                        |              |                            |
|                 |                                |               | Design standards;  |                        |              |                            |

|                 | groundwater and                 |               |   | delivery; leak due    | Groundwater   | for starter                |
|-----------------|---------------------------------|---------------|---|-----------------------|---------------|----------------------------|
| Not significant | Potential soil,                 | Very unlikely | <ul> <li>Secondary containment for delivery and</li> </ul>  | Spill during          | Soil          | Leak of diesel             |
|                 |                                 |               | Response procedure  |                       |               |                            |
|                 |                                 |               | <ul> <li>Firefighting systems</li> </ul>  |                       |               |                            |
|                 |                                 |               | <ul> <li>Limited sources of ignition</li> </ul>   |                       |               |                            |
|                 | consequential events            |               | <ul> <li>Routine operator checks</li> </ul>   |                       |               |                            |
|                 | atmosphere; potential of        |               | <ul> <li>Impervious operational areas</li> </ul>  |                       |               |                            |
|                 | po                              |               | <ul> <li>Design standards</li> </ul>  |                       |               | leak                       |
| Moderate        | released to plant               |               | <ul> <li>Minimum of flanged connections</li> </ul>  | leak                  | Plant         | ignition of gas            |
| Slight -        | Smoke, toxic combustion         | Very unlikely | <ul> <li>Bunded storage tanks</li> </ul>  | Ignition of gas       | Air           | Fire from                  |
|                 |                                 |               |   |                       |               | Furnace/Boiler             |
|                 |                                 |               | <ul><li>Minimum of flanged connections</li><li>Controls and alarms for pressure</li><li>Routine operator checks</li></ul> |                       |               | atmosphere                 |
|                 |                                 |               | <ul> <li>standards for steam systems</li> </ul>   | and connections       | Visual        | plant building/            |
| Not significant | Noise and visible plume at leak | Unlikely      | Statutory design, fabrication and inspection  | Faulty boiler tubes   | Noise         | Steam leak to              |
|                 |                                 |               | <ul> <li>Effluent drains isolate the area</li> </ul>  |                       |               |                            |
|                 |                                 |               | <ul> <li>Impervious surfaces indoors</li> </ul>   |                       |               |                            |
|                 |                                 |               | Program.  |                       |               |                            |
|                 |                                 |               | <ul> <li>Routine inspection and maintenance</li> </ul>  |                       |               |                            |
|                 |                                 |               | <ul> <li>Routine operator checks</li> </ul>   |                       | Surface Water | equipment                  |
|                 | contamination                   |               | <ul> <li>Design standards</li> </ul>  | vibration             | Groundwater   | from steam turbine         |
| Not significant | Potential fire and groundwater  | Unlikely      | <ul> <li>Minimum of flanged connections</li> </ul>  | Equipment fracture or | Soil          | Leak of lube oil/ seal oil |

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|                 | groundwater and       |               | storage  | refueling, or leaks      | Groundwater | vehicle refueling           |
|-----------------|-----------------------|---------------|--|--------------------------|-------------|-----------------------------|
| Not significant | Potential soil,       | Very unlikely | <ul> <li>Secondary containment for delivery and</li> </ul>         | Spill during delivery or | Soil        | Leak of fuel oil/diesel for |
|                 |                       |               |  |                          |             | Miscellaneous               |
|                 |                       |               |  |                          |             |                             |
|                 |                       |               | combustion fan   |                          |             |                             |
|                 | atmosphere            |               | <ul> <li>extraction of tipping hall atmosphere by</li> </ul>       |                          |             |                             |
|                 | potentially into      |               | <ul> <li>level detection/alarm in chute</li> </ul>                 |                          |             | chute                       |
|                 | tipping hall and      |               | <ul><li>"plug" of waste in chute acting as seal</li></ul>          |                          |             | gases up feed               |
|                 | products released to  |               | <ul> <li>stack if ID fan stopped</li> </ul>                        | chute                    |             | combustion                  |
| Not significant | Combustion            | Very unlikely | <ul> <li>suction created by ID fan or suction effect of</li> </ul> | Waste ignition in        | Air         | Back flow of                |
|                 |                       |               |  | explosion                |             |                             |
|                 | structure damaged     |               | and back loading of rejected feedstock                             | material; gas            |             |                             |
|                 | from plant if         |               | <ul> <li>Crane operator observation of gas bottles</li> </ul>      | flammable                |             | system                      |
|                 | release of flue gases |               | Operator training.   | presence of              |             | in combustion               |
| Moderate        | above limits and/or   |               | Boiler design standard   | of support fuel;         | Plant       | surge/explosion             |
| Slight -        | Flue gas emissions    | Very unlikely | <ul> <li>Combustion control system with interlocks.</li> </ul>     | Delayed ignition         | Air         | Pressure                    |
|                 |                       |               | kept locked shut.  |                          |             |                             |
|                 |                       |               | <ul> <li>Discharge point for attenuation ponds will be</li> </ul>  |                          |             |                             |
|                 |                       |               | <ul> <li>Impervious surfaces indoors</li> </ul>                    |                          |             |                             |
|                 |                       |               | <ul> <li>Design standards</li> </ul>                               |                          |             |                             |
|                 |                       |               | <ul> <li>Minimum of flanged connections</li> </ul>                 | connections              |             |                             |
|                 |                       |               | program  | pipework                 |             |                             |
|                 | contamination         |               | <ul> <li>Routine inspection and maintenance</li> </ul>             | tank, burners or         | Water       |                             |
|                 | surface water         |               | storage  | to faulty storage        | Surface     | burner                      |

|                 | products potentially              |               |  | motor, cabling         |               | item fire                 | item    |
|-----------------|-----------------------------------|---------------|--|------------------------|---------------|---------------------------|---------|
| Not significant | Smoke, combusted                  | Very unlikely | <ul> <li>Design and fabrication standards</li> </ul>             | Faulty electric        | Air           | Equipment/part            | Equ     |
|                 |                                   |               | <ul> <li>Use of spill kits</li> </ul>                            |                        |               |                           |         |
|                 |                                   |               | the control of hazardous substances                              |                        |               |                           |         |
|                 |                                   |               | <ul> <li>Storage in accordance with requirements of</li> </ul>   |                        |               |                           |         |
|                 | water/groundwater                 |               | <ul> <li>Designated storage areas</li> </ul>                     | or spillage during use | water         |                           |         |
|                 | soil, surface                     |               | <ul> <li>Bunded area for tanks</li> </ul>                        | containers in storage  | water Ground  | materials                 | mat     |
| Not significant | Contamination of                  | Unlikely      | <ul> <li>Store only small quantities of materials</li> </ul>     | Leakage from           | Soil Surface  | Spillage of raw           | Spil    |
|                 |                                   |               | emergency plan.  |                        |               |                           |         |
|                 |                                   |               | <ul> <li>Have a fire detection system and an</li> </ul>          |                        |               |                           |         |
|                 |                                   |               | <ul> <li>Permit-to-work system</li> </ul>                        |                        |               |                           |         |
|                 | contaminated firewater            |               | <ul> <li>Enforce no smoking rules</li> </ul>                     |                        |               |                           |         |
|                 | potential for release of          |               | materials  |                        |               |                           |         |
|                 | groundwater; also                 |               | <ul> <li>Only store relatively small amounts of</li> </ul>       |                        |               |                           |         |
|                 | soil, surface water or            |               | Fire hose nearby   |                        | Ground water  | vent                      | solvent |
|                 | subsequent contamination of air,  |               | <ul> <li>Training regarding fire hazards</li> </ul>              |                        | Surface water | such as paints and        | sucl    |
|                 | combustion products and           |               | <ul> <li>Notices and training regarding fire hazards</li> </ul>  | combustion products    | Soil          | flammable materials       | flam    |
| Not significant | Major fire with emission of toxic | Very unlikely | <ul> <li>Fire precautions</li> </ul>                             | Emission of toxic      | Air           | Fire in stores containing | Fire    |
|                 |                                   |               | <ul> <li>Oil water interceptors on drainage system</li> </ul>    |                        |               |                           |         |
|                 |                                   |               | <ul> <li>Impervious surfaces outdoors</li> </ul>                 |                        |               |                           |         |
|                 |                                   |               | <ul> <li>Design standards</li> </ul>                             |                        |               |                           |         |
|                 |                                   |               | <ul> <li>Minimum of flanged connections</li> </ul>               |                        |               |                           |         |
|                 |                                   |               | alarms   |                        |               |                           |         |
|                 |                                   |               | <ul> <li>Storage Tank fitted with high level and leak</li> </ul> |                        |               |                           |         |
|                 | contamination                     |               | Program.   |                        |               |                           |         |
|                 | surface water                     |               | <ul> <li>Routine inspection and maintenance</li> </ul>           |                        | Surface Water |                           |         |

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|             |                                |  |                                | contamination               | Firewater   |                    |   |                             |   |
|-------------|--------------------------------|--|--------------------------------|-----------------------------|---|--------------------|---|-----------------------------|---|
|             | Water                          | Ground                                     | Water                          | Surface                     | Air   |                    |   |                             |   |
|             |                                |  |                                | containment                 | Ineffective   |                    |   |                             |   |
|             |                                |  |                                |                             | firewater   |                    |   |                             |   |
|             |                                | Drainage arrangements to waste water tank. | Containment in bunker          | impervious surfaces         | Containment within plant area with                  | Response procedure | <ul> <li>Fire detection systems and fire hoses</li> </ul> | Routine operator inspection | <ul> <li>Inspection and maintenance program.</li> </ul> |
|             |                                |  |                                |                             | Very unlikely                                       |                    |   |                             |   |
| groundwater | potential for contamination of | water system;                              | through uncontaminated surface | controlled water by run off | unlikely Potential contamination of Not significant |                    |   | atmosphere                  | released into the                                       |
|             | า of                           |  | rface                          | off                         | of Not signif                                       |                    |   |                             |   |

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# **Annex 6. Mine Status of Project Site**

### **Unofficial Translation of the Letter**

Date: November 05, 2018 Afghanistan National Disaster Management Authority Directorate of Mine Action Coordination (DMAC)

To Bayat Power Company

According to the maps and coordinates sent by the Afghan Bayat Power Company, the Project site is located in Khuja Gorger village in Sheberghan city, Jowzjan province. We have not either the surveyed and nor registered in our program database the potential mining areas in the 5 km radius of the Project site so far. Some areas of the jowzjan province has already been cleared of the mines in the last years.

Since Sheberghan city also suffered during the wars during the past years, it is advised that all construction companies, prior to planning stage, clean the areas of mines through one of the registered companies with us.

Please don't hesitate to contact us at 0708606060 if you observe or come across any suspicious objects.

Regards,

Islamic Republic of Afghanistan Office of the State Minister for Disaster Management and Humanitarian Affairs



د افغانستان اسلامی جههوریت دفتر وزیر دولت در امور رسیده گی به حوادث

اریخ| Date: ۱۳۹۷ / ۱۳۹۷

ادارہ ملی آمادہ گی مبارز دیا حوادث Afghanistan National Disaster Management Authority ریاست انسجام و همآهنگی تطهیرماین Directorate of Mine Action Coordination (DMAC)

شعاره فيت REF : ۲۰۱۸ - ۲۰۱۸

به شرکت محترم بیات پاور ا

به اساس مکتوب شماره ( ۱۹/۸۷ الی ۵۹/۱۳۰ مورخ ۱۳۹۷/۸/۵ ریاست محترم خدمات تخنیکی وسکتوری ولایت جوزجان و مکتوب شماره ۴۴/۱۲ مورخ ۱۳۹۷/۸/۲ و درخواست تیم سروی شرکت بیات پاور نگاشته منشود:

قرار مالحظه نقشه و کوردینات ارسائی شرکت محترم بیات پاور ساحه مورد نظر در مربوطات قریه خواجه گوگردک، شیرغان مرکز ولایت جوزجان موقعیت دارد. درساحه متذکره و محدوده پنج کیلومتری اطراف آن فعلاً ساحه ملوث با ماین و مواد منفجر ناشده باقیمانده از جلگ شناسایی، سروی وثبت پانک اطلاعاتی پروگرام ماین پاکی نشده است. بعضی از قسمت های نواحی مرکز ولایت جوزجان طی سالهای قبل توسط پروگرام ماین پاکی افغانستان سروی واز وجود ماین ها ومواد منفجرناشده پاکسازی گردیده است.

ازینکه شهر شبرغان، نواحی اطراف آن، ودر مجموع ولایت جوزجان طی سالهای متمادی شاهد جنگ ونزاع های داخلی وخارجی بوده است، درصورت اعمار تأسیمات وکند نکاری زمین توسط بست ویا ماشین توصیه میگردد تاعموم شرکت های ساختمانی قبل از پلانگذاری ساحه را توسط یکی ازموسسات راجستر شده ماین پاکی چک نماند

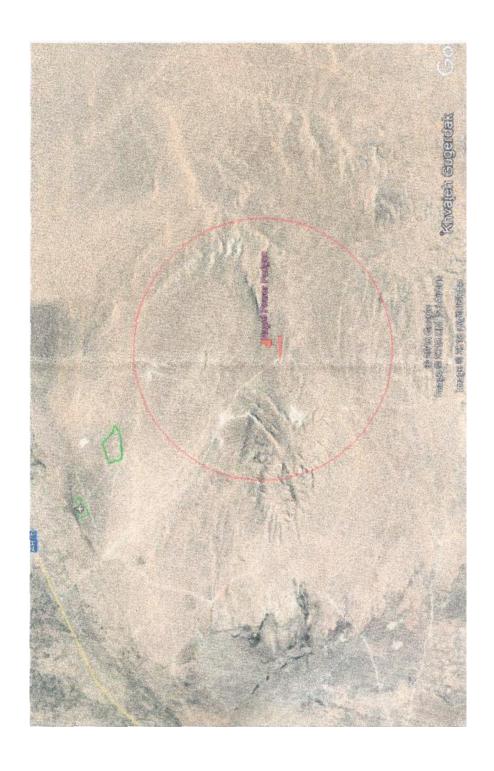
و همچنان احتراماته خواهش میگردد تا در موقع مواجه شدن با اشیای مشکوک ساحه را مسدود نموده و این اداره را از طریق ۷۰۸۴۰۶۰۰ در جریان بگذارید.

> بالحترام محمد ابراهیم ستانکزی مسول نفتر ساحوی زون شمال

Address: Setingst equare, next to Bank Aftelsis, Kebul- Afghanistan الزائر جهاراً أهي سفار تناصوال بلنك قلاح كثال الفلائين الجزر معد الفق يوعلي- رئيس لصحيم و مساطري علهي المساوري عليه المساوري عليه و المساطري عليه المساوري عليه المساوري المساوري المساوري عليه المساوري المساوري المساوري المساوري المساوري المساوري المساوري المساوري المساورين الم

+93(0)705966401 | mohammaday@dmac.gov.af





# **Annex 7. Yatimtaq Gas Laboratory Report**

Inspectorate International Lin P O Bex 49 400, Bot No. TP 010 407, Technopark, Jebel Ali, Dubai, United Arab Emirates T: +97.14 89978100 P: +971.4 8807953 www.inspectorate.com



### LABORATORY REPORT

### REPORT NO:- IDI-1008-2018-R0

|                  |   |                         |                       |   | EFORT 140:- 1DL-1008-2018-ND |
|------------------|---|-------------------------|-----------------------|---|------------------------------|
| Sample No.       | : | IDL/1008/2018           | Customer Name         | : | BAYAT POWER                  |
| Lab Job No.      | : | DXB-TBA                 | Customer Address      | : | BAYAT POWER, AFGANISTAN      |
| INSP No.         | : | NA                      | Sampling Date / Time  | : | 13.02.2018 / 03:15 PM        |
| Product Grade    | : | NATURAL GAS             | Sample Received on    | : | 07.03.2018                   |
| Gas Temperature  | : | 73°F                    | Analysis Conducted on | : | 07-13.03.2018                |
| Source           | : | Out Let                 | Reporting Date        | ; | 14.03.2018                   |
| Sample Condition | : | Good                    | Sampled By            | : | Client                       |
| Pressure         | : | 61 BAR-860 pSi          | Terminal              | : | NA                           |
| Sample Reference | : | Amine Plant Outlet Gas. |                       |   |                              |

| TEST               | METHOD     | UNITS    | RESULTS |
|--------------------|------------|----------|---------|
| Methane            | ASTM D1945 | % mol.   | 98.73   |
| Ethane             | ASTM D1945 | % mol.   | 0.47    |
| Propane            | ASTM D1945 | % mol.   | 0.05    |
| Iso-Butane         | ASTM D1945 | % mol.   | 0.01    |
| n-Butane           | ASTM D1945 | % mol.   | 0.01    |
| Neo-Pentane        | ASTM D1945 | % mol.   | <0.01   |
| Iso-Pentane        | ASTM D1945 | % mol.   | <0.01   |
| n-Pentane          | ASTM D1945 | % mol.   | <0.01   |
| Hexane (C6)        | ASTM D1945 | % mol.   | <0.01   |
| Heptane (C7)       | ASTM D1945 | % mol.   | <0.01   |
| Octane (C8)        | ASTM D1945 | % mol.   | < 0.01  |
| Nonane (C9)        | ASTM D1945 | % mol.   | <0.01   |
| Decane (C10)       | ASTM D1945 | % mol.   | <0.01   |
| Nitrogen           | ASTM D1945 | % mol.   | 0.24    |
| Carbon Dioxide     | ASTM D1945 | % mol.   | 0.49    |
| Hydrogen           | ASTM D1945 | % mol.   | < 0.01  |
| Carbon Monoxide    | ASTM D1945 | % mol.   | <0.01   |
| Oxygen             | ASTM D1945 | % mol.   | < 0.01  |
| Hyd rogen Sulphide | ASTM D1945 | % mol.   | < 0.01  |
| Total Sulphur      | ASTM D6228 | ppm mol. | >14 *   |
| Mercaptan Sulphur  | ASTM D6228 | ppm mol. | >14 *   |

Page 1 of 2

NOTE: Precision parameters apply in determination of above results and test method. Also refer to ASTM D 3244 &IP Standard methods Ap.E utilization of test data to determine conformance with specification. The derived test results are only applicable to the samples(s) as received and identified as above. The report shall not be reproduced except in full without the written approval of inspectorate Dubai. All our services are undertaken as per our standard terms and conditions of business, a copy can be provided upon request.

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Inspectorate International Limite d P.O. Box49400, PlotNo. TP 010407, Technopark, Jebel Ali, Dubai, United Arab Emirates T: +971 48998100 F: +971 48807953 www.inspectorate.com



## LABORATORY REPORT

| ASTM D3588   MJ/Sm3   37.7     Net Calorific Value   | TEST                                 | METHOD       | UNITS  | RESULTS |
|--|--------------------------------------|--------------|--------|---------|
| Net Calorific Value  | Relative Density @ 15/15°C,air=1     | ASTM D3588   | -      | 0.564   |
| Water Vapor Content of Gaseous Fuels         Karl Fischer         ppm wt         3           Particle Count         ISO 4406         ISO 4406 <td< td=""><td>Gross Calorific Value</td><td>ASTM D3588</td><td>MJ/Sm3</td><td>37.7</td></td<>  | Gross Calorific Value                | ASTM D3588   | MJ/Sm3 | 37.7    |
| Particle Count   ISO 4406   SO Code   G/5/1  | Net Calorific Value                  | ASTM D3588   | MJ/Sm3 | 33.9    |
| SO Code   Code   6/5/1     Metals  | Water Vapor Content of Gaseous Fuels | Karl Fischer | ppm wt | 3       |
| Metals   Iron   Copper   Calcium   Copper   Calcium   Copper   Calcium   Copper   Calcium   Ca | Particle Count                       | ISO 4406     |        |         |
| Iron   Copper   Cop | ISO Code                             |              | Code   | 6/5/1   |
| Copper   C | Metals                               |              |        |         |
| CP-OES   Magnesium   CP-OES   Magnesium   CP-OES   Magnesium   CP-OES   C | Iron                                 |              |        | <1      |
| Aluminum  Tin  Chromium  Nickel  Titanium  Vanadium  Silver  Cadmium  Manganese  Calcium  Magnesium  Phosphorus  Zinc  Molybdenum  Boron  Barium  Silicon  Sodium  | Copper                               |              |        | <1      |
| Tin Chromium Nickel Titanium Vanadium Silver Cadmium Manganese Calcium Magnesium Phosphorus Zinc Molybdenum Boron Barium Silicon Sodium  | Lead                                 |              |        | <1      |
| Chromium   | Aluminum                             |              |        | <1      |
| Nickel Titanium Vanadium Silver Cadmium Manganese Calcium Magnesium Phosphorus Zinc Molybdenum Boron Barium Silicon Sodium   | Tin                                  |              |        | <1      |
| Titanium   | Chromium                             |              |        | <1      |
| Vanadium   Silver   Cadmium   KCP-OES   Mg/L   Silver   | Nickel                               |              |        | <1      |
| Silver   Cadmium   KCP-OES   mg/L   <1     <1     <1     <1   <1     <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1    | Titanium                             |              |        | <1      |
| Cadmium  | Vanadium                             |              |        | <1      |
| Manganese Calcium  Magnesium Phosphorus Zinc Molybdenum Boron Barium Silicon Sodium  mg/L  <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1  | Silver                               |              |        | <1      |
| Calcium   Calc | Cadmium                              | ICP-OES      |        | <1      |
| Magnesium         <1   | Manganese                            |              | mg/L   | <1      |
| Phosphorus  Zinc  Molybdenum  Boron  Barium  Silicon  Sodium  <1  <1  <1  <1  <1  <1  <1  <1  <1  <  | Calcium                              |              |        | <1      |
| Zinc       <1  | Magnesium                            |              |        | <1      |
| Molybdenum         <1  | Phosphorus                           |              |        | <1      |
| Solition   Control   Con | Zinc                                 |              |        | <1      |
| Sarium   | Molybdenum                           |              |        | <1      |
| Silicon <1 Sodium  | Boron                                |              |        | <1      |
| Sodium <1  | Barium                               |              |        | <1      |
|  | Silicon                              | ]            |        | <1      |
| Potassium <1   | Sodium                               | 7            |        | <1      |
|  | Potassium                            | 7            |        | <1      |

Remarks: - Total Sulphur & Mercaptan Sulphur results are above the detection limit of the test method. (Obtained Sulphur Content in the analysis is 53 ppm md & Mercaptan Sulphur is 78 ppm mol)

> George Idicula (Laboratory Manager)

Approved By

Page 2 of 2

NOTE: Precision parameters apply in determination of above results and test method. Also refer to ASTM D 3244 &IP Standard methods Ap.E utilization of test data to determine conformance with specification. The derived test results are only applicable to the samples(s) as received and identified as above. The report shall not be reproduced except in full without the written approval of inspectorate Dubai. All our services are undertaken as per our standard terms and conditions of business, a copy can be provided upon request.

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# Annex 8. Stakeholder Engagement Records

| NO | Position       | Name                  | Directorate                   | Contact Number |
|----|----------------|-----------------------|-------------------------------|----------------|
| 1  | President      | Sayed Milad Sajadi    | Education                     | 0790422006     |
| 2  | Vice President | Sayed Aref Baqeri     | Refugees and Repatriations    | 0744228718     |
| 3  |                | Sayed Jamaluddin      | DABS                          | 0784509486     |
| 4  |                | Mohammad Yousuf       | Municipality                  | 0784509486     |
| 5  |                | Borhanuddin           | Urban Development and Housing | 0794341274     |
| 6  | Member         | Mohammad Rafie        | Environment Protection        | 0782182938     |
| 7  | Wernber        | Abdul Ghafar Ahmadi   | Provincial Governor,          | 0788146610     |
| 8  |                | Akhtar Mohammad Fayzi | Information & Culture         | 0799011966     |
| 9  |                | Afizullha Qudrat      | Provincial Council.           | 0788869080     |
| 10 |                | Eng. Jawid            | Mines and Petroleum           | 0781310033     |
| 11 |                | Abdul Ghafar Kuyak    | Bayat Power Company           | 0702935333     |



|          |   | 13                       | 12/0/13 2/6               |       |
|----------|---|--------------------------|---------------------------|-------|
|          |   | ()                       | 17/8/13 216<br>12:00PmcsC |       |
| خانه ها: |   | *                        | 12.5014                   |       |
|          | T                                       | د گان کمیته سمع ش        | یست اشتراک کنند           | 7     |
| امضاء    | رياست مربوطه                            | وظيفه                    | نام و تخلص                | شماره |
|          | امورمها برسن ومودر تفرقال               | )                        | ا رهار بالركا             | 1     |
|          | ا رونان الريان                          | מנוטוף ה'נ               | -623                      | 2     |
|          | 21 40 7 will                            | معولان وأنخيري           | سمالالين                  | 3     |
|          |   | عفورظارات تعليمارف       | المسلاد كادا              | 4     |
| Jan 2    |   | الخسرتفارك وراقس         | אנטטרינצין.               | 5     |
| Castill  | ربا حفاظ دحوط أيد                       | مومراز ياسى راكدت بايرار | Est                       | 6     |
| us s     | و مقام ولات                             | كارتنا ورققادى تفاق      | برالغفار الحرى            | 7     |
|          | े वित्र रहें                            | 1/19/2000                | المركز "نق"               | 8     |
| 991      | (1) (1) (1) (1)                         | Eswolse/ 4               | حَيْقًا مِنْ يَرْيَ       | 9     |
| E.F.     | رياس معادن                              | سرعوى حولوناس            | انجير حاوير               | 10    |
|          |   |                          |                           | 11    |
|          |   |                          |                           | 12    |
|          |   |                          |                           | 13    |
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|          | Jan |                          |                           | _     |
|          | All so                                  | ل بروره مروی             | د ب<br>میرانس معن بار مو  | •     |
| 1 .      |   | 800 .6 C                 | جمّای برتی ہیں            | •     |
| ,        | 1                                       | 200                      | ., 🔾                      |       |

|    | Local Grievance Redress Committees (Men Local GRCs) |                    |              |            |  |  |  |  |  |  |  |
|----|---|--------------------|--------------|------------|--|--|--|--|--|--|--|
| No | No Position Name Father Name Phone Number           |                    |              |            |  |  |  |  |  |  |  |
| 1  | President   | Mohammad Alem      | Abdul Karim  | 0787501536 |  |  |  |  |  |  |  |
| 2  | Vice President                                      | Saleh              | Buman Ali    | 0747011720 |  |  |  |  |  |  |  |
| 3  |   | Haji Lal Mohammad  | Abdul Khalil | 0787923571 |  |  |  |  |  |  |  |
| 4  | Members   | Mohammadullah      | Ishagh       | 0767056470 |  |  |  |  |  |  |  |
| 5  |   | Abdul Ghafar Kuyak | Abdul Khaleg | 0702935333 |  |  |  |  |  |  |  |

|    | Local Grievance Redress Committees (Women Local GRCs) |         |              |            |  |  |  |  |  |  |
|----|---|---------|--------------|------------|--|--|--|--|--|--|
| No | lo Position Name Father Name Phone Number             |         |              |            |  |  |  |  |  |  |
| 1  | President   | Andira  | Mehrabuddin  | 0787862480 |  |  |  |  |  |  |
| 2  | Vice President  | Zia jan | Dad Mohammad | 0731742261 |  |  |  |  |  |  |
| 3  | Member  | Zarmina | Abdulrahim   | 0731770768 |  |  |  |  |  |  |

| ـ شهر شيرغان  | جسهوری اسلامی الحقصنتان<br>و لایت جوزجان- شهر شیر غان<br>پروژه برق بیفت   |  |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|--|
| ع شكيك  | كموته سمع شكفيات  |  |  |  |  |  |  |  |  |
| پروژه برق بیفت  | ننم پروژه   |  |  |  |  |  |  |  |  |
| (0)   | قریه / تاهیه  |  |  |  |  |  |  |  |  |
| هوز جان<br>-  | ولايت   |  |  |  |  |  |  |  |  |
| ر شمعمی مطابق <u>د./. برد/. 8</u> /در <sub>آم</sub> میلادی که در محل  | cm1397/0/1  |  |  |  |  |  |  |  |  |
|   | در تصف موود ، مورجهار به با اشتراک تعدادی از نعایندگان،   |  |  |  |  |  |  |  |  |
| گو صورت گرفت که در نتیجه اشخاص ذیل به تایید اکار  | 0   |  |  |  |  |  |  |  |  |
|   | ار ای مجلس، به عنوان نمایندگان مردم تحیین گردیدند.  |  |  |  |  |  |  |  |  |
| 2 8750 183.6 this   | [- معتز م/معتز مه   |  |  |  |  |  |  |  |  |
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| 0-7670.3.6.4.760 iti 26.0.0.2.4.4.2.4   | 4- محترم/محترمه . مل مراك تي والد. المحاوي.   |  |  |  |  |  |  |  |  |
| 073174726pit 2000, and 4077   | 6- معترم/معترمه غيما عصالي ولا . هداد   |  |  |  |  |  |  |  |  |
| م م م م م م م م م م م م م م م م م م م   | 7- معترم/معترمه بزمر معديك والاستعلىم الم   |  |  |  |  |  |  |  |  |
| (2)   |   |  |  |  |  |  |  |  |  |
| الثنای کفر پروژه، در صورت بروز مشکلات اجتماعی و   |   |  |  |  |  |  |  |  |  |
| ئىلىن 25 <u>3</u> 43.5 <mark>70 يىن ئىلىد</mark> خاصىل ئىلىيە.  | دا، اهستانی دورای طوری منصوطیت داریا در داشتن کو پرورو به دار صورات پرور هستند است. با در مصورات پرور هستند است. در مصورات پرور در دار طریق راه از در ارتباطی مصورات پروره دار طریق راه از در |  |  |  |  |  |  |  |  |
| مراس مدی بارسول مردی اجاع   | , MII.  |  |  |  |  |  |  |  |  |
| 10/8/17 Les 10 20 (15/18/1)   |   |  |  |  |  |  |  |  |  |

|    | Civil Society FGD            |              |                                       |   |          |                |  |  |  |
|----|------------------------------|--------------|---------------------------------------|---|----------|----------------|--|--|--|
|    | Date Start time of interview |              | End of interview                      | Place of interview                        | Province | District       |  |  |  |
|    | tober 13,<br>2018            | 1:40PM       | 3:10PM                                | Information and<br>culture<br>Directorate | Jawzjan  | 1              |  |  |  |
| NO | NO Name                      |              | Job Title                             | Gender                                    | Age      | Contact Number |  |  |  |
| 1  | Abdulmana                    | an Farwand   | Bakhtar Agency                        | Male                                      | 60       | 0799104147     |  |  |  |
| 2  | Moh Rasul                    | Danish       | Manager at Radio<br>Armaghan          | Male                                      | 30       | 0780662940     |  |  |  |
| 3  | Abdul Mati                   | n Sadid      | Manager of PAFCO program              | Male                                      | 29       | 0781880091     |  |  |  |
| 4  | Haji Ali Ent                 | izar         | Head of Civil Society<br>Institutions | Male                                      | 40       | 0787535777     |  |  |  |
| 5  | Sultan Hus                   | sian Sultani | Student                               | Male                                      | 25       | 0748590900     |  |  |  |
| 6  | Akhtar Mol                   | nammad       | Civilian Activist                     | Male                                      | 34       | 0799011966     |  |  |  |
| 7  | Nooria                       |              | Manager at Male TV                    | Female                                    | 48       | 0787148801     |  |  |  |
| 8  | Anjela Dad                   | war          | University professor                  | Female                                    | 35       | 0799124887     |  |  |  |
| 9  | Mahboba                      |              | Civilian Activist                     | Female                                    | 20       | 0783292363     |  |  |  |
| 10 | Shakira                      |              | Government staff                      | Female                                    | 40       | 0786721162     |  |  |  |



|     | University Students FGD      |          |                      |                          |          |                |  |  |  |  |
|-----|------------------------------|----------|----------------------|--------------------------|----------|----------------|--|--|--|--|
|     | Date Start time of interview |          | ate End of interview |                          | Province | District       |  |  |  |  |
| 24- | -10-2018                     | 12:10 PM | 1:00 PM              | University of<br>Jawzjan | Jawzjan  | 1              |  |  |  |  |
| NO  | ı                            | Name     | Job Title            | Gender                   | Age      | Contact Number |  |  |  |  |
| 1   | Habiba                       |          | University Students  | Female                   | 23       | 0786242318     |  |  |  |  |
| 2   | Nooria                       |          | University Students  | Female                   | 21       | 0780362521     |  |  |  |  |
| 3   | Farmela                      |          | University Students  | Female                   | 22       | 0789500443     |  |  |  |  |
| 4   | Madina                       |          | University Students  | Female                   | 19       | 0785577294     |  |  |  |  |
| 5   | Semin                        |          | University Students  | Female                   | 21       | 0788224027     |  |  |  |  |
| 6   | Enayatullal                  | h        | University Students  | Male                     | 21       | 0780525337     |  |  |  |  |
| 7   | Nawabudir                    | 1        | University Students  | Male                     | 20       | 0787947091     |  |  |  |  |
| 8   | Azizullah                    |          | University Students  | Male                     | 21       | 0795465155     |  |  |  |  |
| 9   | Abdulbasir                   |          | University Students  | Male                     | 21       | 0782347011     |  |  |  |  |
| 10  | Mohamma                      | dullah   | University Students  | Male                     | 25       | 0767056470     |  |  |  |  |



|      | Refugees and Repatriations FGD |                         |                  |                                 |          |                |  |  |  |  |
|------|--------------------------------|-------------------------|------------------|---------------------------------|----------|----------------|--|--|--|--|
| С    | Date                           | Start time of interview | End of interview | Place of interview              | Province | District       |  |  |  |  |
| 26-1 | 0-2018                         | 3:00 pm                 | 3:45 pm          | Jawanan<br>Rawshangar<br>office | Jawzjan  | 3              |  |  |  |  |
| NO   | NO Name                        |                         | Job Title        | Gender                          | Age      | Contact Number |  |  |  |  |
| 1    | Jamshed                        | l                       | Shopkeeper       | male                            | 24       | 0706498825     |  |  |  |  |
| 2    | Shukrulla                      | aah                     | Worker           | male                            | 28       | 0786020300     |  |  |  |  |
| 3    | Noor Mol                       | hammaad                 | Toiler           | male                            | 70       | -              |  |  |  |  |
| 4    | Faisal                         |                         | Student          | male                            | 20       | 0780479094     |  |  |  |  |
| 5    | Jabar                          |                         | Student          | male                            | 21       | 0788679919     |  |  |  |  |
| 6    | Amenah                         |                         | House wife       | female                          | 28       | 0731767890     |  |  |  |  |
| 7    | Latifa                         |                         | House wife       | female                          | 45       | 0787208197     |  |  |  |  |
| 8    | Asifa                          |                         | House wife       | female                          | 100      | -              |  |  |  |  |
| 9    | 9 Naz                          |                         | House wife       | female                          | 24       | -              |  |  |  |  |
| 10   | Hora                           |                         | House wife       | female                          | 63       | -              |  |  |  |  |
| 11   | Neda                           |                         | House wife       | female                          | 32       | -              |  |  |  |  |



|      | University Professors FGD |                         |                      |                          |          |                |  |  |  |
|------|---------------------------|-------------------------|----------------------|--------------------------|----------|----------------|--|--|--|
| [    | Date                      | Start time of interview | End of interview     | Place of interview       | Province | District       |  |  |  |
| 28-1 | 10-2018                   | 12:00 pm                | 1:00 pm              | University of<br>Jawzjan | Jawzjan  | 1              |  |  |  |
| No.  | No. Name                  |                         | Job Title            | Gender                   | Age      | Contact Number |  |  |  |
| 1    | Enay                      | atullah Hamidi          | University professor | Male                     | 25       | 0781998535     |  |  |  |
| 2    | Saye                      | ed Hesamudin            | University professor | Male                     | 27       | 0785105017     |  |  |  |
| 3    | F                         | layratullah             | University professor | Male                     | 30       | 0782536503     |  |  |  |
| 4    | Sayed                     | l Ahmad Khalid          | University professor | Male                     | 27       | 0782561543     |  |  |  |
| 5    | Anj                       | ilah Dadwar             | University professor | Female                   | 35       | 0788844812     |  |  |  |
| 6    | Oı                        | mid Ahmad               | University professor | Male                     | 28       | 0788847422     |  |  |  |
| 7    |                           | Saifullah               | University professor | Male                     | 27       | 0788915589     |  |  |  |
| 8    | Abdı                      | ul Jabar Saqif          | University professor | Male                     | 28       | 0784381546     |  |  |  |
| 9    | Hemasah Eftikhar          |                         | University professor | Female                   | 39       | 0780320255     |  |  |  |
| 10   | Khodidad Mahmodi          |                         | University professor | Male                     | 30       | 0786052969     |  |  |  |
| 11   | Ме                        | hdad Esmail             | University professor | Male                     | 32       | 0786250825     |  |  |  |
| 12   | Abdu                      | ılnasir Jawhar          | University professor | Male                     | 40       | 0785623685     |  |  |  |



|     | Chiefs, Elders and Alley representative FGD |                         |                                    |                               |          |                   |  |  |  |  |
|-----|---|-------------------------|------------------------------------|-------------------------------|----------|-------------------|--|--|--|--|
|     | Date  | Start time of interview | End of interview                   | Place of interview            | Province | District          |  |  |  |  |
| 30  | -10-2018                                    | 11:20am                 | 12:10pm                            | The home of<br>secretary head | Jawzjan  | Sofi Qala village |  |  |  |  |
| No. | o. Name                                     |                         | Job Title                          | Gender                        | Age      | Contact Number    |  |  |  |  |
| 1   | Haji Lal Mo                                 | ohammad                 | Head of Naw Abad village           | Male                          | 50       | 0787923571        |  |  |  |  |
| 2   | Mohamma                                     | d Alim                  | Council Secretary                  | Male                          | 35       | 0787501536        |  |  |  |  |
| 3   | Mohaammad Nabi                              |                         | Head of Sofi Qala<br>village       | Male                          | 60       | 0783476229        |  |  |  |  |
| 4   | Faqer Moh                                   | ammad                   | Head of village                    | Male                          | 78       | -                 |  |  |  |  |
| 5   | Haji Najibu                                 | ıdin                    | Local leader                       | Male                          | 75       | -                 |  |  |  |  |
| 6   | Mohamma                                     | d Nazar                 | Head of Turkman<br>Abad village    | Male                          | 41       | 0789750143        |  |  |  |  |
| 7   | Jalaludin                                   |                         | Secretary of local Council         | Male                          | 38       | 0780309946        |  |  |  |  |
| 8   | Khirmohan                                   | nmad                    | Head of Secretary                  | Male                          | 54       | 0784765269        |  |  |  |  |
| 9   | Sale Mohammad                               |                         | Financial officer of the secretary | Male                          | 48       | 0772465157        |  |  |  |  |
| 10  | Abdullah                                    | <u> </u>                | Head of people                     | Male                          | 71       | -                 |  |  |  |  |
| 11  | Haji Achil                                  |                         | Head of people                     | Male                          | 63       | 0788767808        |  |  |  |  |
| 12  | Haji Hamio                                  | lullah                  | Head of Chehel mard village        | Male                          | 45       | 0780428624        |  |  |  |  |



|     | House Wives FGD |                         |                  |                     |          |                 |  |  |  |  |
|-----|-----------------|-------------------------|------------------|---------------------|----------|-----------------|--|--|--|--|
|     | Date            | Start time of interview | End of interview | Place of interview  | Province | District        |  |  |  |  |
| 23- | 10-2018         | 3:00 PM                 | 4:00 PM          | Home of participate | Jawzjan  | 2- Mirwis menah |  |  |  |  |
| No. |                 | Name                    | Job Title        | Gender              | Age      | Contact Number  |  |  |  |  |
| 1   | Zia jan         |                         | House wife       | Female              | 25       | 0731742261      |  |  |  |  |
| 2   | Sherin jar      | 1                       | House wife       | Female              | 35       | 0711070290      |  |  |  |  |
| 3   | Wida            |                         | House wife       | Female              | 24       | 0786711370      |  |  |  |  |
| 4   | Nazri           |                         | House wife       | Female              | 38       | -               |  |  |  |  |
| 5   | Shamafro        | z                       | House wife       | Female              | 32       | 0702700847      |  |  |  |  |
| 6   | Shukria         |                         | House wife       | Female              | 26       | 0730469064      |  |  |  |  |
| 7   | Shakila         |                         | House wife       | Female              | 35       | -               |  |  |  |  |
| 8   | Zainab          |                         | House wife       | Female              | 27       | -               |  |  |  |  |
| 9   | Mawloda         |                         | House wife       | Female              | 26       | 0729697936      |  |  |  |  |
| 10  | Lema            |                         | House wife       | Female              | 33       | -               |  |  |  |  |



|      | Employed Women FGD |                         |                          |                     |          |                |  |  |  |  |
|------|--------------------|-------------------------|--------------------------|---------------------|----------|----------------|--|--|--|--|
| Date |                    | Start time of interview | End of interview         | Place of interview  | Province | District       |  |  |  |  |
| 25-  | 10-2018            | 7:00AM                  | 7:50AM                   | Home of participate | Jawzjan  | 1              |  |  |  |  |
| No.  |                    | Name                    | Job Title                | Gender              | Age      | Contact Number |  |  |  |  |
| 1    | Mahdia             |                         | Baker                    | Female              | 35       | 0782365892     |  |  |  |  |
| 2    | Shahnaz            |                         | Tailer                   | Female              | 19       | 0711070290     |  |  |  |  |
| 3    | Terena             |                         | Doctor                   | Female              | 30       | 0799164949     |  |  |  |  |
| 4    | Frishta            |                         | Tailer                   | Female              | 19       | -              |  |  |  |  |
| 5    | Zia jan            |                         | Radio speechify          | Female              | 28       | 0731742261     |  |  |  |  |
| 6    | Bi Bi Habil        | ba                      | Needlework               | Female              | 40       | -              |  |  |  |  |
| 7    | Marzia             |                         | Tailer and<br>Needlework | Female              | 38       | 0786148328     |  |  |  |  |
| 8    | Zia                |                         | Shearer                  | Female              | 18       | -              |  |  |  |  |
| 9    | Salma              |                         | Shearer                  | Female              | 18       | 0780440471     |  |  |  |  |



| Religious Scholars FGD       |                       |                  |  |  |          |                |
|------------------------------|-----------------------|------------------|--|--|----------|----------------|
| Date Start time of interview |                       | End of interview | Place of interview                       | Province                               | District |                |
| 24-                          | 24-10-2018 10:05 AM   |                  | 11:00 AM                                 | Haj and Islamic<br>affairs directorate | Jawzjan  | 1              |
| No.                          | . Name                |                  | Job Title                                | Gender                                 | Age      | Contact Number |
| 1                            | Mohammad Alim         |                  | Orator of Hazrat<br>Omar mosque          | male                                   | 35       | 0784801149     |
| 2                            | Abduljabar            |                  | Imam of Hazrat<br>Osman mosque           | male                                   | 38       | 0783061264     |
| 3                            | Mawlwi Khir mohammaad |                  | Imam of Imam Azam<br>Mosque              | male                                   | 38       | 0780115756     |
| 4                            | Khilfa Haji Azam      |                  | Orator of Khanqa<br>mosque               | male                                   | 45       | 0789016428     |
| 5                            | Saifudin              |                  | Orator of Houusin<br>Abad village mosque | male                                   | 31       | 0780776074     |
| 6                            | Ahmad Khan            |                  | Imam of Narab shah<br>mosque             | male                                   | 35       | 0799123636     |
| 7                            | Abdulsamad            |                  | Orator of Imam<br>Tarmzi mosque          | male                                   | 49       | 0788743813     |
| 8                            | Mawlawi Abdullah      |                  | Imam of Hazrat Bilal<br>mosque           | male                                   | 41       | 0784876837     |
| 9                            | Karamatullah          |                  | Orator of Jawhari<br>mosque              | male                                   | 35       | 0782463727     |
| 10                           | Shahwali              |                  | Orator of Hazrat<br>Hamza mosque         | male                                   | 47       | 0788742231     |



| General Public FGD           |                        |                  |   |                                |          |                |
|------------------------------|------------------------|------------------|---|--------------------------------|----------|----------------|
| Date Start time of interview |                        | End of interview | Place of interview                      | Province                       | District |                |
| 31                           | 31-10-2018 11:40AM     |                  | 12:40 PM                                | Youth<br>Empowerment<br>Center | Jawzjan  | 1              |
| NO                           | Name                   |                  | Job Title                               | Gender                         | Age      | Contact Number |
| 1                            | Taqi Sherzad           |                  | Radio Sarish<br>employee                | male                           | 22       | 0782075041     |
| 2                            | Hussin Rahimi          |                  | Member of social institution            | male                           | 23       | 0731494918     |
| 3                            | Mohammad Haroon        |                  | Radio Bustan employee                   | male                           | 22       | 0781817101     |
| 4                            | Chargh Ali Behzad      |                  | Member of Balkhab student Institution   | male                           | 22       | 0772600907     |
| 5                            | Najibullah Ibrahimi    |                  | Member of Ahlubit madrsah               | male                           | 21       | 0747520983     |
| 6                            | Mohammad Rahimi        |                  | Memmber of<br>Hamagan<br>Organization   | male                           | 23       | 0775663335     |
| 7                            | Moh Aqa Danish         |                  | Head of Samangan<br>Student institution | male                           | 21       | 0764509508     |
| 8                            | Azizullah Sultani Zada |                  | Imam of Chaharda<br>Masom mosque        | male                           | 27       | 0749423036     |
| 9                            | Saleh Noori            |                  | Member of cultural commute              | male                           | 24       | 0747011790     |
| 10                           | Nasiba Aria            |                  | Employee of PAFCO                       | female                         | 22       | 0789114270     |
| 11                           | Masoma Saydi           |                  | Member of<br>Durokhshan<br>institution  | female                         | 21       | 0786380830     |
| 12                           | Asma Rashid            |                  | Member of Ahlubit madrsah               | female                         | 19       | 0796665053     |



|               | Landowners & Farmers FGD |                    |                 |                       |                        |          |                       |  |
|---------------|--------------------------|--------------------|-----------------|-----------------------|------------------------|----------|-----------------------|--|
| Date Starting |                          | g time Ending Time |                 | Place of<br>Interview | Province               | District |                       |  |
| 26            | 26-10-2018 10:2          |                    | )am 11:00am     |                       | Home of Deputy council | Jawzjan  | 3- Hamid Abad village |  |
| No            | No Name                  |                    | Job Title       |                       | Sex                    | Age      | Contact Number        |  |
| 1             | 1 Ibrahim                |                    | Worke           | r                     | male                   | 60       | 0787880845            |  |
| 2             | Juma Khar                | ı                  | Jobless         |                       | male                   | 65       | -                     |  |
| 3             | 3 Haji Abdurahman        |                    | Head of village |                       | male                   | 48       | 0786285994            |  |
| 4             | 4 Agha Mohammad          |                    | Worker          |                       | male                   | 52       | 0785035043            |  |
| 5             | Rahman Nazar             |                    | Worker          |                       | male                   | 59       | 0781884576            |  |
| 6             | Saleh                    |                    | Worker          |                       | male                   | 42       | -                     |  |
| 7             | 7 Khalifa Juma           |                    | Farmer          |                       | male                   | 40       | 0782927020            |  |
| 8             | 8 Ghayeb Nazar           |                    | Farmer          |                       | male                   | 41       | 0786753728            |  |
| 9             | 9 Haji Sefudian          |                    | Farmer          |                       | male                   | 52       | 0785548025            |  |
| 10            | 0 Khan Morad             |                    | Farmer          |                       | Male                   | 51       | 0784092676            |  |
| 11            | 11 Abdulaziz             |                    | Farmer          |                       | Male                   | 41       | 0787675039            |  |
| 12            | 2 Naqibullah             |                    | Head o          | of landowners         | male                   | 21       | 0783827545            |  |





# Ministry of Rural Rehabilitation and Development Directorate

**Date:** November 4, 2018 **Interviewee:** Engineer Mohammad Yousuf



## **Statistic Organization Office**

**Date:** October 29, 2018 Interviewee: Abdul Matin



# **Afghanistan Land Authority Office**

**Date:** October 29, 2018 **Interviewee:** Jamaludin Ranjbar



# **Ministry of Women's Affairs Directorate**

Date: October 30, 2018 Interviewee: Waheeda Faizi



# **Ministry of Commerce Directorate**

**Date:** October 30, 2018 **Interviewee:** Eng. Birdi Sorkhi



Ministry of Agriculture Irrigation and Livestock Directorate

Date: October 29, 2018 Interviewee: Eng. Abdurasheed



| NGOs |                            |                     |             |             |  |  |
|------|----------------------------|---------------------|-------------|-------------|--|--|
| No.  | Name                       | Name of Interviewee | Job Title   | Date        |  |  |
| 1    | World Hunger Help<br>(WHH) | Nasrullah Seddiqi   | Head of NGO | Nov 8, 2018 |  |  |
| 2    | Women Association          | Fatema Nik Rasul    | Head of NGO | Nov 8, 2018 |  |  |
|      |                            |                     |             |             |  |  |



2:photo

1:photo



| Jawzjan Province, Directorates |   |                                   |  |              |  |  |  |
|--------------------------------|---|-----------------------------------|--|--------------|--|--|--|
| No.                            | Directorate   | Name of Interviewee               | Job Title  | Date         |  |  |  |
| 1                              | Ministry of Education   | Abdulhay Yashin                   | Head of Directorate  | Oct 29, 2018 |  |  |  |
| 2                              | Ministry of Refugees and Repatriations                        | Sayed Taleb Sadat                 | Acting Head of Directorate                                 | Oct 24, 2018 |  |  |  |
| 3                              | Provincial Municipality                                       | Mohabbatullah Talash              | Director of Monitoring and<br>Evaluation                   | Oct 29, 2018 |  |  |  |
| 4                              | DABS  | Sayed Mansour Pouya               | Head of Directorate  | Oct 28, 2018 |  |  |  |
| 5                              | Ministry of Commerce & Industry                               | Alhaj Allhajullah Birdy<br>Sorkhi | CEO of Chamber of Commerce & Industries                    | Oct 30, 2018 |  |  |  |
| 6                              | Ministry of Urban Development and Housing                     | Mohammad Amin Arkain              | Head of Directorate  | Oct 29, 2018 |  |  |  |
| 7                              | NEPA  | Hazrat Shah                       | Head of Directorate  | Oct 29, 2018 |  |  |  |
| 8                              | Land Registration and<br>Coordination -<br>(ARAZI)            | Jamalluddin Ranjbar               | Record of Results Manager                                  | Oct 29, 2018 |  |  |  |
| 9                              | Ministry of Information & Culture                             | Akhtar Mohammad Faizi             | General Manager of Youth Affairs                           | Oct 27, 2018 |  |  |  |
| 10                             | Provincial Council  | Hafizullah Nudrat                 | Member of Provincial council                               | Oct 29, 2018 |  |  |  |
| 11                             | Ministry of Mine and Petroleum                                | Abdul Salam                       | General Director of Cadastre                               | Dec 7, 2018  |  |  |  |
| 12                             | Ministry of Women Affairs                                     | Wahida Faiz                       | Head of Coordination of<br>Social and Economic<br>Services | Oct 30, 2018 |  |  |  |
| 13                             | Ministry of Public Health                                     | Hafizullah Jamshidi               | Head of Directorate  | Oct 29, 2018 |  |  |  |
| 14                             | Statistics Organization                                       | Abdul Mateen                      | Acting Head of Directorate                                 | Oct 29, 2018 |  |  |  |
| 15                             | Ministry of Public Works                                      | Ataullah Kargar                   | Head of Directorate  | Oct 29, 2018 |  |  |  |
| 16                             | Ministry of Rural Rehabilitation and Development              | Mohammad Yousof<br>Saeed          | Head of Directorate  | Dec 4, 2018  |  |  |  |
| 17                             | Disaster Management   | Sayed Feyzullah Sadat             | Head of Directorate  | Oct 30, 2018 |  |  |  |
| 18                             | Ministry of Labour Social Affairs<br>Martyrs and Disabled     | Sayed Abdurrashid<br>Hozuri       | Head of Directorate  | Oct 31, 2018 |  |  |  |
| 19                             | Ministry of Agriculture, Irrigation and Livestock Directorate | Abdurrashid                       | Agricultural Research<br>Manager                           | Oct 29, 2018 |  |  |  |









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# Annex 9. Sample of Individual Questionnaire

| ©reenTech                  |
|----------------------------|
| CONSTRUCTION & ENGINEERING |

کود ......تاریخ.....تاریخ......

سو النامه انفر ادی پروژه برق بیات ولایت جوزجان



| بيوگرافي  |  |          |
|---|--|----------|
|   |  |          |
|   | اسم  | 1        |
|   | سن   | 2        |
| □ مجرد □ مناهل □ بيوه   | حالت مدنى  | 3        |
|   | ولسوالي  | 4        |
|   | قريه/ناحيه                                       | 5        |
|   | وظيفه  | 6        |
|   | در آمد ماهیانه                                   | 7        |
| 🗆 بی سواد 🔝 ابتدائیه 🔝 دوازده پاس 🖨 لیسانس 🖨 ماستر 🖨 تعلیمات دینی | تحصيلات  | 8        |
|   | مكان مصاحبه                                      | 9        |
|   | زمان مصاحبه                                      | 10       |
|   | شماره تماس(اختیاری)                              | 11       |
|   | ,          |          |
| سوالات اجتماعي  |  |          |
|   |  |          |
|   |  |          |
| بیات اگاهی دارید؟   | شما از پروژه برق گازی ب                          |          |
|   | 🗖 خیر  | 🗖 بنه    |
|   |  |          |
|   |  |          |
| هر شما رضایت بخش است؟   | رضعیت فعلی برق، در شو                            | 2- آیا و |
| 🗖 خیر 👚 خیلی کم   | 🗖 حیلی زیاد                                      | 🗖 بله    |
|   |  |          |
| جند ساعت بر ق دار ید؟<br>-  | در بیست چهار ساعت، ج                             | 3- شما   |
| 1 – 20 ساعت 🔲 24 ساعت 🔲 نداریم                                    |  |          |
|   |  |          |
|   | 9 9 00 00 DOI 0                                  |          |
|   | ) شما از کدام منابع تامین .<br>ن شهری ( جنراتور) |          |
|   | ,  |          |
| 🗖 برق آبی 📗 برق بادی 📄 دیگر                                       | ل سولر ( آفتابی)                                 | 🗖 بر ق   |
|   |  |          |
|   |  |          |
| ضابت دار بد؟  | شما از تطبیق این پروژه ر                         | 5- آيا ن |
| 🗖 خیر 🌷 🗖 خیلی کم   |  |          |



| 6- این پروژه چه فایده <i>ی بر</i> ای شما دارد؟   |
|--|
|  |
| 🗖 ندارد 👚 نمیدانم  |
| 7- این پروژه چه ضرری برای شما خواهد داشت؟<br>  |
|  |
|  |
|  |
| 8۔ مردم این منطقه به کدام زبانها صحبت می کنند؟<br>🗖 فارسی/ دری 🗖 پشتو 🗖 ازبکی 🗖 دیگر   |
|  |
| 9- منبع آب آشامیدنی در این منطقه کدام است؟<br>ا آب نل ا آب چاه ا آب چشمه ا دیگر  |
| 01-مردم این منطقه به کدام کار ها مصروف هستند؟ (شغل مردم منطقه چیست؟)<br>□ دهقانی □ نجاری □ مستری □ موتروانی □ ویرینگکاری □ برقی □ نانوایی □ معلمی<br>□ رنگمالی □ دکانداری □ قصابی و                  |
| 11- آیا فکر می کنید که این پروژه باعث اشتغال و ایجاد فرصت های کاری در منطقه و شهر شما می شود؟<br>□ بله □ خبر   |
| <b>~</b>   |
| 12-بیماری های شایع در این شهر چه بیماری هایی می باشند؟<br>□ نفس تنگی □ محرقه □ فلج اطفال □ تبرکلوز □ اسهال □ سینه بغل □ سرطان □ دیگر<br>   |
| 13- آیا دختران و زنان این شهر می توانند بدون کدام مشکل درس های شان را ادامه بدهند؟<br>بله 🕒 خیر  |
| 14-کدام موانع باعث می شود که خانم ها نتوانند درس های شانرا ادامه بدهند؟<br>□ سنت ها □ خشونت های فامیلی □ مشکلات اقتصادی □ ازدواج زود هنگام □ نبودن مکتب یا استاد خانم<br>□ دوری مکتب □ ناامنی □ دیگر |



| لات محیط زیستی    | سو ا  |                                |
|-------------------|---|--------------------------------|
|                   | ع نباتات موجود در منطقه را نام ببرید؟<br>رختان  | 1:1- انوا <u>:</u><br>انواع در |
|                   | <br>پاهان خودرو و بیابانی   | انو اع گد                      |
|                   |   |                                |
|                   | دارویی و طبی  | حیاهان                         |
|                   | 🗖 ندار د 👚 نمیدانم  |                                |
|                   | ه حیوانات موجود در منطقه را نام ببرید؟<br>، خانگی   |                                |
|                   | ، وحشى  | <br>حيوانات                    |
|                   | ······································  | <br>خز ندگار                   |
|                   |   | ر<br>برندگان                   |
|                   | 🗖 ندار د 📗 نمیدانم  |                                |
|                   | سوخت مردم این مناطق در فصل گرما چید<br>زغال سنگ<br>چوب<br>گاز<br>برق<br>دیگر<br>سوخت مردم این مناطق در فصل سرما چید |                                |
|                   | زغال سنگ<br>چوب<br>گاز  |                                |
|                   | برق<br>دیگر   |                                |
| ت استفاده می شود؟ | ن مناطق، برای پخت و پز از چه نوع سوخ<br>زغال سنگ<br>چوب   | 1-در ایر<br>[                  |
|                   | گاز   |                                |





| □ برق  |
|--|
| 🗆 دیگر   |
|  |
| 20-از کدام منابع آب، برای آبیاری زمین های زراعتی استفاده می شوند؟<br>ا آب نل ا آب چاه ا آب چشمه ا آب دریا ا دیگر |
| 21- آیا منابع آب زراعتی این مناطق در فصل زراعت کافی می باشد؟<br>بله □ خیر  |
| 22- برای تطبیق بهتر این پروژه، شما چه پیشنهاداتی دارید؟  |
|  |
|  |
|  |

# Social Questionnaires Bayat IPP Project October 2018

| Question  | Answer   |
|---|--|
| Name of Enumerator  |  |
| Name of Field Supervisor  |  |
| Introduction  |  |
| Interviewer to introduce himself to the stakeholder and ask for permission to conduct the survey Once they have agreed to partake, please state:                                      |  |
| "This interview is purely voluntary and you are under no obligation to provide information that you do not feel do not want to answer a question, please just state this.             | to provide information that you do not feel comfortable with. If you                                       |
| We appreciate your participation in the survey, and it will help us in understanding the current social and environmental aspects related to the project befor with your assistance." | understanding the current social and environmental aspects related   |
| ,   |  |
| Basic Information   |  |
| Place of Interview  |  |
| Date / Time of Interview  |  |
| District  |  |
| Village / Town  |  |
| Please provide me with your name and surname?   |  |
| Please provide me with your age?  |  |
| Please could you provide me with your telephone number?   |  |
| Please tell me what your marital status is?   | Single ☐ Married ☐ Widow ☐   |
| Please tell me what your occupation is?   |  |
| What level of education do you hold?  | Illiterate $\Box$ Primary $\Box$ 12th Grade $\Box$ Bachelor $\Box$ Trade $\Box$ Religious Education $\Box$ |

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| Social   |
|--|
| Before this introduction, have you heard of the Bayat Gas to Power Plant project before? Ask if they want to elaborate on what they have heard about the Project |
| - □Yes   |
| - □ No   |
| Is the existing electricity satisfied in your town/city?   |
| - □Yes   |
| - □ Very much  |
| - □ No   |
| - □ Very Low   |
| In 24 hours, how many hours do you have electricity?   |
| - 🗆 1-10 hours   |
| - 10-20 hours  |
| - 24 hours   |
| -   We don't have  |
| Where do you source your energy from?  |
| - Grid power   |
| - Generator  |
| - Solar  |
| -   Wind   |
| - 🗆 Hydroelectric  |
| - Other  |
| Do you agree with implementation of this project?  |
| - 🗆 Yes  |
| - Uery much  |
| - □ No   |
| - 🗆 A little   |
| What is the beneficial of this project?  |
|  |
|  |
| - □ I don't know   |
|  |

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| - Teconomic problems  |
|---|
| - □ Family violence   |
| -   Tradition   |
| What are the most problem that female cannot studies continuously in your community?    |
| - □ No  |
| - ☐Yes  |
| Are the girls and women studies continuously in your community?                         |
| - Others?   |
| - Cancer  |
| - Diarrhoea   |
| -    "Hectic"   |
| - 🗆 Typhus  |
| - 🗆 Paralysis   |
| - □Asthma   |
| What illnesses have you observed in the community?                                      |
| - □No   |
| - 🗆 Yes   |
| Does the implementation of the project will create job opportunities in your community? |
|   |
| What are the most common jobs in your community?  |
| - Other   |
| - Stream  |
| -    Fountain   |
| - 🗆 Water Well  |
| - Piped Water   |
| From where do you provide your drinking water?  |
| - Other   |
| - 🗆 Uzbek   |
| - 🗆 Pashto  |
| - 🗆 Persian/Dari  |
| Which languages are spoken in your community?   |
| - □ I don't know  |
| - □ Doesn't have  |
|   |
|   |
| What is the adverse impacts of this project?  |

| - ☐ Marriage - ☐ Lack of school and female teachers         |
|---|
| - Others  |
| Environment in General                                      |
| What kinds of flora are in the natural areas around us?     |
| - Trees:  |
| - Territorial vegetation:                                   |
| - Medicinal plants:   |
| - □ Not existed   |
| - □ I don't know  |
| What kinds of fauna are in the natural areas around us?     |
| - Domestic Animal:  |
| - Wild Animal:  |
| - Reptile:  |
| - Birds:  |
| - □ Not existed   |
| - □ I don't know  |
| What cooking fuel do the people usually use in summer time? |
| - Coal  |
| - 🗆 Wood  |
| - Gas   |
| -   Electricity   |
| - Other   |
| What cooking fuel do the people usually use in winter time? |
| - Coal  |
| - W00d  |
|   |
| -   Electricity   |
| - Other   |
| What are your current source of water for irrigation?       |
| -   Pipe water  |
| - 🗆 Well  |
| - Spring  |
| - River   |
| - Other   |

|--|

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# Annex 10. Sample of FGD Questionnaire



پرسشنامه مصاحبه گروهی

شهر شبرغان پروژه بیات پاور



### پرسشنامه مصاحبه گروهی

### شهر شبرغان

این پرسشنامه جهت سروی در مورد اثرات زیست محیطی و اجتماعی پروژه بیات پاور شبرغان (Bayat Power IPP) می

### "نوت برای گرداننده مصاحبه گروهی"

لذا از شما خواهشمندیم بعد از معرفی پروژه، برای تفحص و موشکافی در حین سوال و جواب از روش های مستقیم و غیر مستقیم که نمونه آن در ذیل تشریح گردیده اند استفاده نمایید.

### نوع اول: به شكل مستقيم:

- √ منظور شما از این حرف چیست؟ لطفا بیشتر توضیح دهید
- ۷ منظور شما از این حرف چیست: سعه بدسر نوصیح دعیـ
   ✓ خوب شما در این مورد چی فکر میکنید؟
   ✓ این مورد را که گفتند چگونه اتفاق افتاد؟
   ✓ قضاوت و احساس شما نسبت به این مورد چگونه است؟
   ✓ می توانید در این مورد کمی بیشتر بگویید؟
   ✓ چیزی را که شما یادآوری کردید، من زیاد نفهمیدم، میشود به زبان ساده تر و با ذکر مثال بیان نمایید؟

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### ليست اشتراك كنندگان

| امضا/ شصت | شماره تماس | سن | جنس | شغل/ وظيفه | نام | شماره |
|-----------|------------|----|-----|------------|-----|-------|
|           |            |    |     |            |     | 1     |
|           |            |    |     |            |     | 2     |
|           |            |    |     |            |     | 3     |
|           |            |    |     |            |     | 4     |
|           |            |    |     |            |     | 5     |
|           |            |    |     |            |     | 6     |
|           |            |    |     |            |     | 7     |
|           |            |    |     |            |     | 8     |
|           |            |    |     |            |     | 9     |
|           |            |    |     |            |     | 10    |
|           |            |    |     |            |     | 11    |
|           |            |    |     |            |     | 12    |

| <br> | <br> | کننده: | نام مصاحبه |
|------|------|--------|------------|
|      |      |        | امضا:      |

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| پرسشنامه مصاحبه گروهی، ولایت جوزجان، پروژه بیات پاور                              |        |            |                |                 |       |  |
|---|--------|------------|----------------|-----------------|-------|--|
| ولسوالي/ ناحيه / قريه   | شهر    | محل مصاحبه | وقت ختم مصاحبه | وقت شروع مصاحبه | تاريخ |  |
|   | شبرغان |            |                |                 |       |  |
| دستور جلسه/ نكات اصلى بحث   |        |            |                | شماره           |       |  |
| آیے شما از پروژه نیروگاه برق گازی بیات آگاهی دارید؟                               |        |            |                |                 | 1     |  |
| وضعیت فعلی برق در منطقه تان چگونه است ؟   |        |            |                |                 | 2     |  |
| برق فعلى منطقه شما از كدام منبع تامين مي شود؟                                     |        |            |                |                 | 3     |  |
| لطفا فواید این پروژه را در سطح ولایت و منطقه تان ذکر نمایید.                      |        |            |                |                 | 4     |  |
| آیا شما فکر می کنید که اجرای این پروژه کدام ضرری برای شما و منطقه تان داشته باشد؟ |        |            |                |                 | 5     |  |
| به نظر شما بیشترین سود و فایده این پروژه به چه کسانی می رسد؟                      |        |            |                |                 | 6     |  |
| به نظر شما كدام چالش ها مى تواند در آينده اين پروژه را با مشكل مواجه نمايد؟       |        |            |                |                 |       |  |
| به نظر شما، اجرای این پروژه چه مشکلات محیط زیستی به بار خواهد آورد؟               |        |            |                |                 | 8     |  |
| برای تطبیق بهتر این پروژه چه پیشنهادی دارید؟ لطفا توضیح دهید.                     |        |            |                |                 |       |  |

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### **Group interview questionnaire**

This questionnaire is intended survey of environmental and social impact assessment of Bayat Power energy in Sheberghan , Afghanistan.

### Note to Group interviewer directors:

Based on group interview rules, it is not supposed to enter to detailed and point by point of subjects in interview manual. Interviewers should present enough and comprehensive information to attendees and get feedback by emphasis to direct and indirect interview methods.

So you are requested to use direct and indirected methods -as below sample- after project introduction:

### Type 1) Direct Method:

What is your mean? Please explain more

What you think about this?

How this your cited matter may happen?

What is you opinions and feeling about this matter?

Can you please clear more this one?

I couldn't understand you, can you please give me a sample or simple?

### Type 2) In-Direct Method:

Proper reaction to responses (yeah, right, true, well,...)

Help attendees to find proper words and expressions to describe their own idea

| Group interview questionnaire, Bayat Power project, Jawzjan province |                      |   |                    |      |          |  |  |
|--|----------------------|---|--------------------|------|----------|--|--|
| Date   | Interview start time | Interview end time  | Place of interview | city | District |  |  |
| No   | Subjects to Discu    | Subjects to Discuss   |                    |      |          |  |  |
| 1  | Do you know ab       | Do you know about Bayat Power project?  |                    |      |          |  |  |
| 2  | How is current s     | How is current status of electricity in your area?                                |                    |      |          |  |  |
| 3  | What is your ele     | What is your electricity source?  |                    |      |          |  |  |
| 4  | What is this proj    | What is this project points and advantages to your area/ district or province?    |                    |      |          |  |  |
| 5  | Do you think this    | Do you think this project has disadvantages to you and your area? How (if yes)?   |                    |      |          |  |  |
| 6  | Who are most be      | Who are most beneficiary people/ group in this project?                           |                    |      |          |  |  |
| 7  | What is most cha     | What is most challengeable matters to this project which may make problem?        |                    |      |          |  |  |
| 8  | What is your ide     | What is your idea about environmental issues may raise by this project in future? |                    |      |          |  |  |
| 9  | What is your sug     | What is your suggestions to make improvement to this project implementation?      |                    |      |          |  |  |

### Attendees list

| No | Name | Job/business | Gender | Age | Contact # | Sign |
|----|------|--------------|--------|-----|-----------|------|
| 1  |      |              |        |     |           |      |
| 2  |      |              |        |     |           |      |
| 3  |      |              |        |     |           |      |
| 4  |      |              |        |     |           |      |

Interviewer name and sign :

## **Annex 11. Labour Influx Management**

### **Plan** Employment Impacts

The total workforce employed during the construction has been estimated at 60 people. This includes unskilled and skilled labor, technicians and employees. For the operation of the new power plant and associated facilities about 36 permanent employees will have to be recruited. Employing construction workers and other staff from the region will offer an opportunity to create local employment, increase the local skill base and provide a boost to the local economy. Local communities in the region have requested to provide employment preferences to those already living near the project. They have high expectations of the employment opportunities generated by the project. Moreover, they expect an important in-migration of people from the region, the creation of new business opportunities and other economic benefits. In an area with a relatively high percentage of unemployment, the project will certainly attract a number of job seekers and followers. However, the number of new business opportunities will be limited since the project area is a restricted area, which is only accessible for employees of Contractor and related services.

In order not to advocate too high expectations which could lead to social unrest, it is important that the project provides adequate and realistic information on the opportunities the project would offer. This could be done through regular updates in the local newspapers and other media. For a number of jobs, qualified people from other regions of Afghanistan will have to be attracted. Locally affected people including women should be encouraged to take up construction employment. Women can be organized in female working groups to undertake discrete construction tasks, tree planting, health services, and other supporting services.

### **Mitigation Measures:**

The project could benefit the local population by hiring qualified local workers for construction jobs. The following principles and requirements will be required of the Contractors to follow in their hiring for construction forces:

 Preference will be given to the local population from Sheberghan city and the suburbs who meet the eligibility for the jobs for construction;

- Recruitment process should be made public, with information on timing, recruitment agency or persons, place, and procedures;
- Publication of the above info should be done at least one month prior to recruitment commencing for any phase; information should be provided on how many jobs are available, the likely remuneration package, and the likely duration of the contracts of employment offered;
- Necessary vocational training will be provided to local people to develop their skills base to benefit from the employment opportunities under the project. This could take a number of forms beginning with sessions in local schools and/or a partnership with the local engineering college.

### **Labor Influx**

The influx of a construction force may easily lead to social conflicts with the local population. Workers also might misbehave or get involved in illegal practices, e.g. poaching or hunting. In order to contribute to a harmonious relationship with local communities, to reduce behaviors that could lead to social conflict, and to prevent further environmental degradation a Code of Conduct was also developed for the labor force.

Project construction activities to be carried out near the local communities may cause disturbance and possible conflicts between the workforce and the local population.

- Due to increased use of trucks and other vehicles on the roads in the project area on the access roads to the urban areas elderly people, women and children will be more exposed to dangerous situations;
- The influx and accommodation of workforces will result in increased concerns for the safety of women and children. The mobility of women might be reduced;
- Workers coming from different parts of Afghanistan may have different norms and values in social behavior as compared with the resident population. In addition, migrant labor force could disturb the privacy of the local population.

Miscommunications between these two groups could easily lead to social unrest;

- To avoid the social unrest, the contractor will be provided lunch or other food during working hours
- There could be a shortage of supplies in local markets and shops due to the temporary presence of workforces. This could be a hindrance for the local population, especially for elderly people.
- Local population will have priority about unskilled labor, in order to avoid social unrest.

### **Mitigation Measures:**

The Code of Conduct recognizes the provision of resources by the employer and shares responsibilities among the workers for the use of equipment, procedures, and training. Typical issues to be included in a Code of Conduct are the following:

- No hunting, poaching or illicit use of local natural resources;
- Careful use of local natural resources and project resources, especially water; transmission line materials, fuel, fuel-wood, and electricity;
- Restrictions related to the consumption of alcohol and drugs;
- · Safe driving practices; and
- Respect for the local community and its cultural norms in which laborers are working.