

Addendum to Final Social Assessment Report (January 2015)

1. Background

As part of studies conducted for Punjab Rural Water and Sanitation Sector Improvement Project (PRWSSIP), a Social Assessment study was conducted in January 2015. The objective of the study was to conduct a Social Assessment, mainly to better understand and address social development issues, and ensure inclusion, participation, transparency and accountability and management of land for the project.

The Mid-Term Review (MTR) of the PRWSSIP was conducted in November 2017 to critically review the implementation performance of all project components, with a focus on identifying strengths, resolving outstanding issues and agreeing on actions required to remedy the noted deficiencies in implementation. In pursuance of the findings of the MTR, the Department of Water Supply and Sanitation (DWSS) developed a strategic action plan to accelerate achievement of the service delivery objectives of the project, including enhancements required in staffing and capacity. The DWSS also proposed that the project be restructured to align with the Government of Punjab's present needs and priorities. The DWSS proposed to focus on improving drinking water quality by switching to surface-water-based piped water supply schemes in areas where groundwater is contaminated with arsenic or fluoride. This switch was also supported by the recently launched National Water Quality Sub Mission (NWQSM) of the Government of India (GoI). To improve access to water, DWSS proposed upgrading hand-pump based schemes to piped water supply under sub-component 1.a (iii). This was a new sub-component introduced with a target of 405 villages.

Considering this, the Project was restructured in Oct, 2019 including five Surface Water Supply Schemes to Villages of District Amritsar, Gurdaspur, Patiala and Fatehgarh Punjab. For all the five Surface Water Supply Schemes, Environment and Social Assessments were conducted to assess environmental and social impact, and to suggest measures to mitigate the adverse impacts while enhancing the positive ones.

This document is an addendum to the Revised Final Social Assessment report

prepared for the project in January 2015, which presents the findings of ESIA's for these five new Multi Village schemes. This document also includes the Social Management Plans (SMPs) as prepared for these 5 schemes.

2.ESIA study for Surface Water Supply Schemes:

Environmental and Social Impact Assessment (ESIA) for the 5 Multi Village Schemes were carried out based on the review of initial design of project components and strategic issues related to sustainable use of water supply sources, wastewater generation, management of health& safety issues during the construction and post construction phase of the project, etc. The ESIA report covers:

- Analysis of environment and social baseline data;
- Assessment of legislative, institutional and policy frameworks and guidelines relevant to the project;
- Identifying anticipated environmental and social impacts;
- Suggesting mitigation measures to address the adverse environment and social impacts, preparation of Environment and Social Management Plans (ESMPs);
- Laying out procedures and implementation mechanism to implement ESMP including Grievance Redressal Mechanism.

3. Findings of the ESIA study for 5 Surface Water Schemes

The ESIA study was conducted based on the extensive field work, discussion with stakeholders and analyzing the impacts. The findings of ESIA's for 5 schemes is briefed below:

i) Chawinda Kalan Scheme, Amritsar

In this scheme 112 villages in District Amritsar have been covered, out of which 6 villages have water supply based on Hand Pumps. The Spring Level in these villages is rapidly decreasing due to substantial drawl for irrigation purpose and all the blocks of project villages are overexploited. Moreover, the quality of water so obtained from the tube wells is deteriorating

day by day particularly due to presence of high percentage of arsenic and heavy metals causing health hazards.

Number of villages affected with water quality parameter Arsenic in Amritsar

S. No	Criterion	No of villages
1	Village Falling in 777* list of Quality Affected Villages from Arsenic	74
2	Newly identified Arsenic Affected	33
4	En-route Villages	5
	Total	112

Findings of the ESIA study:

- The project does not attract provisions of EIA notification 2006 and its amendments till date, therefore Environmental Clearance is not applicable for the project;
- Project components i.e. WTP plant and pipeline network do not pass through any national park/ wildlife sanctuary;
- There is no archeological monuments and cultural/ heritage property impacted due the project;

The locations of proposed Water Treatment Plants have been identified in the close vicinity of the proposed tapping points at village Chawinda Kalan so as to have minimum pumping requirement of the raw water. The WTP locations have also been identified taking into consideration the availability of 2.48 Acres Panchayat land in the nearby village Chawinda Kalan, Block Chogawan, District Amritsar so that there are no issues of procurement of land. The land for the WTP has already been transferred to DWSS by the Gram panchayat Public consultation reveals that people are satisfied with the proposed scheme and people want early completion of the project

- The pipeline passes along the PWD/ Mandi road, the department is pursuing for the NoC for laying out the pipeline.
- The RoW along the canal/NH has been declared as protected forest and NoC is required from forest department. 15 trees are falling in pipeline alignment which can be saved by adopting proper

mitigation measures such as narrowing the open cut/alignment change. If impact is unavoidable proper NoC from the forest department/ competent authority must be obtained.

- During SIA study it was observed that ramps built in front of the houses, shops as well as other buildings would be dismantled during the laying of pipelines. This project identified 111 such ramps built on ROW of the road which would require partial dismantling during the project. During construction, temporary access will be provided to manage traffic. As agreed on contractor's Contract document, upon completion of civil work in such stretches, the dismantled ramps will be reconstructed by the Contractor. The villagers are informed of the same.

Overall project has major positive impacts in terms of better quality of water (free from arsenic), improved health & quality of life and minor negative impacts which can be easily mitigated. ESMP has been designed for each identified impact and included in the report.

Based on the findings, ESMP has been prepared and is attached as **Appendix A**.

ii) Parowal Scheme, Gurdaspur

In this project, 40 villages in District Gurdaspur have been covered out of which 4 villages have water supply based on Hand Pumps. The Spring Level in these villages is rapidly decreasing due to substantial drawl for irrigation purpose and all the blocks of project villages are over exploited. Moreover, the quality of water so obtained from the tube wells is deteriorating day by day particularly due to presence of high percentage of arsenic and heavy metals causing health hazards.

Number of villages affected with water quality parameter Arsenic in Gurdaspur

S.No.	Criterion	No of villages
1	Village Falling in 777* list of Quality Affected Villages from Arsenic	18
2	Newly identified Arsenic Affected	12
4	En-route Villages	10
	Total	40

Findings of ESIA Study:

Based on the extensive field work, discussion with stakeholders and public consultation the findings of the study are as follows:

- The project does not attract provisions of EIA notification 2006 and its amendments till date, therefore Environmental Clearance is not applicable for the project;
- Project components i.e. WTP plant and pipeline network do not pass through any national park/ wildlife sanctuary;
- There is no archeological monuments and cultural/ heritage property impacted due the project;
- The location of proposed Water Treatment Plant has been identified in the close vicinity of the proposed tapping point village Parowal so as to have minimum pumping requirement of the raw water. The WTP location is at Khaira village, Block Fatehgarh Churrian, District Gurdaspur, where 3.0 Acres of Panchayat land is available. Concerned Gram Panchayat has transferred the land to the project. A part of land in village Khaira Kalan connecting water intake point to WTP plant was private land & respective gram panchayat has replaced the land of equal productive value to landowner. The gram panchayat has given NOC to DWSS for pipeline laying in that particular patch of land which is now panchayat land;
- The pipeline passes along the PWD/ Mandi road, the department is pursuing for the NoC for laying out the pipeline;
- During the ESIA study it was observed that ramps built in front of the houses, shops as well as other buildings would require dismantling during the laying of pipeline. This project identified 35 such ramps built on ROW of the road which would require partial dismantling during the project. During construction, temporary access will be provided to manage traffic. As agreed on contractor's Contract document, upon completion of civil work in such stretches, the dismantled ramps will be reconstructed by the Contractor. The villagers are informed of the same;
- The RoW along the canal/NH has been declared as protected forest and NoC is required from forest department. Three (3) trees are falling in pipeline alignment which can be saved by adopting proper

mitigation measures such as narrowing the open cut/alignment change. If impact is unavoidable proper NoC form the forest department/ competent authority must be obtained;

- Overall project has major positive impacts in terms of better quality of water (free from arsenic), improved health & quality of life and minor negative impacts which can be easily mitigated. ESMP has been designed for each identified impact and included in the report.

Based on the findings, ESMP has been prepared and is attached as **Appendix B**.

iii) **Mandoli Scheme, Patiala**

In Patiala (Mandoli scheme), 247 nos. of Rural Drinking Water Supply Schemes are based on tube wells covering 324 villages of Rajpura division of District Patiala. The Spring Level in these villages is rapidly decreasing due to substantial drawl for irrigation purpose. Moreover, the quality of water so obtained from the tube wells is deteriorating day by day particularly due to presence of high percentage of Fluoride and heavy metals causing health hazards

Number of villages affected with water quality parameters like Fluoride and Heavy Metals

SN	Criteria	No of villages
1	Village Falling in 777* list of Quality Affected Villages	87
2	Newly identified fluoride Affected	45
3	Affected with iron and other Heavy metal	21
4	En-route Villages	51
	Total	204

Findings of the ESIA Study:

Based on the extensive field work, discussion with stakeholders and public consultation the finding of the study are as follows:

- The project does not attract provision of EIA notification 2006 and subsequent amendments till date, Therefore EC is not applicable for the project;

- Project components i.e. WTP plant and pipeline network do not pass through any national park/ wildlife sanctuary;
- There is no archeological monuments and cultural/ heritage property impacted due the project;
- A 39 MLD capacity water treatment plant is proposed in village Mandouli of Ghanour block of district Patiala. Total area requirement of proposed 39 MLD WTP at Mandouli is 3.4 Cares. A Gram Panchayat land parcel of 3.4 Acre in village Mandouli of Ghanour block of district Patiala Branch of Bhakhra Main Line was available and has been transferred by the Gram Panchayat to the project;
- Public consultation reveals that people are satisfied with the proposed scheme and people want early completion of the project;
- The pipeline crosses Canal, National, State highway, Railway Line & PWD/ Mandi road, the department is perusing for the NoC for the same for laying out the pipeline;
- During SIA, it was observed that individual ramps are constructed in the ROW in front of houses and shops which would require dismantling during the laying of pipelines. The approximate numbers of house & shop ramps are calculated as 1543. During construction, temporary access will be provided to manage traffic. As agreed on contractor's Contract document, upon completion of civil work in such stretches, the dismantled ramps will be reconstructed by the Contractor. The villagers are informed of the same;
- The RoW along the canal/NH has been declared as protected forest and NoC is required from forest department. Only 5 trees are fall in pipeline alignment for which clearance form Forest Deptt. is required. These can be saved by adopting proper mitigation measures such as narrowing the open cut/alignment change. If impact is unavoidable proper NoC form the forest department/ competent authority must be obtained;
- Overall project has major positive impacts in terms of better quality of water free from Fluoride, improved health & life quality and minor negative impacts, which can be easily mitigated. ESMP has been designed for each identified impact and included in the report.

Based on the findings, ESMP has been prepared and is attached as **Appendix C**.

iv) Pabra Scheme, Patiala

At present 247 nos. of Rural Drinking Water Supply Schemes are based on tube wells covering 324 villages of Division Rajpura, District Patiala. The Spring Level in these villages is rapidly decreasing due to substantial drawl for irrigation purpose. Moreover, the quality of water so obtained from the tube wells is deteriorating day by day particularly due to presence of high percentage of Fluoride and heavy metals causing health hazards.

Number of villages of the project area affected with water quality parameters like Fluoride and Heavy Metals in Patiala

S.N	Criteria	No of villages
1	Village Falling in 777* list of Quality Affected Villages	47
2	Newly identified fluoride Affected	26
3	Affected with iron and other Heavy metal	19
4	En-route Villages	20
	Total	112

Findings of the ESIA Study:

Based on the extensive field work, discussion with stakeholders and public consultation the finding of the study are as follows:

- The project does not attract provision of EIA notification 2006 and subsequent amendments till date, Therefore EC is not applicable for the project;
- Project components i.e. WTP plant and pipeline network do not pass through any national park/ wildlife sanctuary;
- There is no archeological monuments and cultural/ heritage property impacted due the project;
- An 18 MLD capacity water treatment plant is proposed near village Pabra of Rajpura block of district Patiala. Total area requirement of proposed 18 MLD WTP at Pabra is 2.9 acre. A Gram Panchayat land parcel of 30 Bighas 12 biswas in village Pabra of Rajpura block of district Patiala near Kauli Distributary of Narwana Branch of Bhakhra Main Line was identified for the construction of WTP which has already been transferred to DWSS;

- Public consultation reveals that people are satisfied with the proposed scheme and people want early completion of the project
- The pipeline crosses Canal, National, State highway, Railway Line & PWD/ Mandi road, the department is perusing for the NoC for the same for laying out the pipeline
- During the SIA, it was observed that individual ramps were built in front of the houses, shops and other buildings which would require dismantling during the laying of pipelines. The project identified that out of 112 villages of Cluster - 2 approx. 49 villages have individual house ramps in the proposed alignment of the pipeline network. The approximate numbers of house ramps are about 144, individual house ramps on the left side and 73 nos. of ramps are on the right side of road. During construction, temporary access will be provided to manage traffic. As agreed on contractor's Contract document, upon completion of civil work in such stretches, the dismantled ramps will be reconstructed by the Contractor. The villagers are informed of the same.
- The RoW along the canal/NH has been declared as protected forest and NoC is required from forest department. Only 5 trees are fall in pipeline alignment for which clearance form Forest Deptt. is required. These can be saved by adopting proper mitigation measures such as narrowing the open cut/alignment change. If impact is unavoidable proper NoC form the forest department/ competent authority must be obtained.
- Overall project has major positive impacts in terms of better quality of water free from Fluoride, improved health & life quality and minor negative impacts, which can be easily mitigated. ESMP has been designed for each identified impact and included in the report.

Based on the findings, ESMP has been prepared and is attached as **Appendix D**.

v) Nanowal Scheme, Fatehgarh

At present 277 nos. of Rural Drinking Water Supply Schemes are based on tube wells covering 440 villages of District Fatehgarh Sahib. The Spring Level in these villages is rapidly decreasing due to substantial drawl for irrigation purpose. Moreover, the quality of water so obtained from the tube wells is deteriorating day by day particularly due to presence of high percentage of Fluoride and heavy metals causing health hazards.

Number of villages affected with water quality parameters like Fluoride and Heavy Metals in Fatehgarh Sahib

SN	Criteria	No of villages
1	Village Falling in 777* list of Quality Affected Villages	19
2	Newly identified fluoride Affected	19
3	Affected with iron and other Heavy metal	11
4	Having fluoride content more than acceptable limit but less than cause of rejection limit	03
5	Villages having other parameters more than acceptable limit but less than cause of rejection limit	27
4	En-route Villages	13
	Total	92

Findings of ESIA Study:

Based on the extensive field work, discussion with stakeholders and public consultations the major finding of the study is as below:

- The project does not attract provision of EIA notification 2006 and subsequent amendments till date, Therefore, EC is not applicable for the project;
- Project components i.e. WTP plant and pipeline network do not pass through any national park/ wildlife sanctuary;
- There is no archeological monuments and cultural/ heritage property impacted due the project;
- 12 MLD capacity water treatment plant is proposed in village Nanowal of Bassi Pathana block of district Fatehgarh Sahib. Total area requirement of proposed 12 MLD WTP at Nanowal is 3.5 acres. A Gram Panchayat land parcel of 3.5 acre in village Nanowal of Bassi Pathana block of district Fatehgarh Sahib near Rajpura Distributary of Bhakhra Main Line has been identified for the construction of WTP. The land has been transferred to DWSS by the Gram Panchayat;
- Public consultation reveals that people are satisfied with the proposed scheme and people want early completion of the project;
- The pipeline crosses canal at 8 points and crosses state highways of PWD/ Mandi road,. The department is perusing for the NoC for the same for laying out the pipeline.

- As per the ESIA study, it was observed that the villagers have built ramps in front of the houses and shops in the ROW which would need dismantling during the laying of pipelines. Out of 92 villages of Cluster-3 approx. 35 villages have individual house ramps in the proposed alignment of the pipeline network which would require partial dismantling. The approximate numbers of house ramps are about 150 out of which 70 nos. of individual house ramps on the left side and 80 nos. of ramps on the right side of road. During construction, temporary access will be provided to manage traffic. As agreed on contractor's Contract document, upon completion of civil work in such stretches, the dismantled ramps will be reconstructed by the Contractor. The villagers are informed of the same.
- The RoW along the canal/NH has been declared as protected forest and NoC is required from forest department. Only 12 trees fall in pipeline alignment for which clearance from forest dept. is required. These can be saved by adopting proper mitigation measures such as narrowing the open cut/alignment change. If impact is unavoidable proper NoC from the Forest Department/ competent authority must be obtained.
- Overall project has major positive impacts in terms of better quality of water free from Fluoride, improved health & life quality and minor negative impacts, which can be easily mitigated. ESMP has been designed for each identified impact and included in the report.

Based on the findings, ESMP has been prepared and is attached as **Appendix E**.