GREATER MOHALI AREA DEVELOPMENT AUTHORITY (GMADA)

Report of Social Impact Assessment & Social Impact Management Plan

Master Plan Sector Dividing Road 92 & 92 Alpha for Disposal of Storm Sewer, SAS Nagar

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1. Executive Summary

1.1 Introduction

Government of Punjab had approved the Master Plan for S.A.S Nagar for year 2006 to 2031. The key objective of S.A.S. Nagar Master Plan is to fulfil the employment and housing needs for projected population for the year 2031. The conceptual base for preparing S.A.S. Nagar Master Plan is formulated in line with the vision and objective of Greater Mohali Regional Plan 2008-2058. The proposals have provided strategies to give a boom to existing development by stimulating economic base with a special focus on environment and world class infrastructural provisions. An attempt has been made in Regional Plan of S.A.S. Nagar to ensure that an adequate amount of land is being allocated to various land-uses in order to cater the spatial needs of projected population of 4.5 million for the year 2056 (*Singh & Chahal, 2018*).

S.A.S. Nagar Mohali, situated in vicinity of Chandigarh, has been witnessing sharp rise in urban population (*Singh & Chahal, 2018*). During 2001-2011, the highest urban population growth rate has been increased at a rapid rate in S.A.S. Nagar (Mohali) district from 38.3 per cent of its population in towns and cities in 2001 to 54.8 per cent in 2011. Greater Mohali Area Development Authority (GMADA) has been engaged in this process from last many years. Punjab Government is developing Mohali in continuation of Chandigarh, and even developing the surrounding areas, up to Landran, Kharar in terms of various urban activities.

1.2 Background of The Project

The strategic location of S.A.S. Nagar and a long coinciding boundary with the State Capital, Chandigarh makes it more prone to development. The physical, social and economic perspectives are responsible for the smooth functioning of a city and the vision taken during preparation of such documents marks the foundation for building the future of that area and its peripheral surroundings (*Singh & Chahal*, 2018).

Keeping the Master Plan of S.A.S Nagar LPA, 2031 and its vision in mind, Government of Punjab through concerned development authority i.e., Greater Mohali Area Development Authority (GMADA) intends to acquire sector dividing road 92 and 92-Alpha for disposal of storm sewer in villages Chappar Chiri Khurd (194) and Landran (37), Tehsil Mohali. In this connection GMADA has proposed the acquisition of land under the master plan for sector dividing road 92 and 92-Alpha as per notification no. 06/14/2020-6HG1/1937, dated 28.12.2020. The proposed acquisition of land would entail about 23.7708 acres of land.

1.3 Background of Social Impact Assessment

The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act, 2013, has made social impact assessment (SIA) the cornerstone of the new regime that seeks to establish a participative, informed, and transparent process of land acquisition for industrial and infrastructure development in India¹.

 $^{^{1}\} https://content.iospress.com/articles/journal-of-resources-energy-and-development/red151206$

Social Impact Assessment (SIA) includes the processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions and any social change processes invoked by those interventions. The most important outcome of SIA is to develop mitigation plans to overcome the potential negative impacts on individuals and communities and the society at large.

SIA has now become an integral part of project preparation process. The Right to Fair Compensation and Transparency in Land Acquisition and Resettlement and Rehabilitation Act 2013, (RFCTLARR Act, 2013) of Government of India, that replaced the "Land Acquisition Act (LAA), 1894", requires a mandatory SIA as a prelude to all projects' requiring Land Acquisition. It also specifies an elaborate process for the conduct of the SIA study and its evaluation through the Expert Group". The Expert Group will assess the impact of the project on various parameters such as land, transport, housing, lives of people, their occupations, their ownership, their economic conditions, physical infrastructures (drainage, roads, water availability, sanitation etc.) and many other things. The acquisition of land is the core issue of this process which may put multi-facet impact on the society.

1.4 SIA and SIMP Plan Preparation Process

Social Impact Assessment (SIA) and Social Impact Management Plan (SIMP) both are required when the project results in either physical or economic displacement of the people. The plan must ensure that the livelihoods of people affected by the project are restored to levels prevailing before inception of the project. Some of the essential components and steps to be kept in mind for preparing an effective SIA and SIMP, are identification of socio-economic impacts of the project, public/community consultation, legal framework for land acquisition and compensation, entitlement policy, relocation and resettlement, income restoration and details of Rehabilitation and Resettlement (R&R) Budget.

1.5 Aim of Study

The aim of the study is to conduct a social impact assessment study in accordance to 'Right to Fair Compensation and Transparency in Land Acquisition Rehabilitation and Resettlement Act, 2013'.

1.6 Objectives of Study

Social Impact Assessment is carried out in accordance with the provision of section-4 of the RFCTLARR Act, 2013. The SIA assessed socio-economic impacts of the proposed acquisition based on information collected from primary and secondary sources. The SIA study focused on the following objectives:

- ✓ Rationale for the project including how the project fits the public purpose criteria listed in the RTFCTLARR Act, 2013.
- ✓ A socio-economic and cultural profile of the affected area must be prepared based on available data and statistics, field visits and consultations with stakeholders. The identified resettlement sites shall be visited and a brief socio-economic profile of the land and its current resident population shall be indicated.

- ✓ To estimate the number of affected families and number of families among them likely to be displaced.
- \checkmark To understand the extent of land acquired is bare minimum needed for the project.
- ✓ To study the social impacts, nature and cost of addressing them and to overview the impact of these costs on the overall cost of the project vis-a-vis the benefit of the project.
- ✓ To understand the extent of land (public and private), houses, settlement and other common properties likely to be affected by the proposed acquisition.
- ✓ To provide a conclusive assessment of the balance and distribution of the adverse social impacts and social costs and benefits of the proposed project and land acquisition, including the mitigation measures, and provide an assessment as to whether the benefits from the proposed project exceed the social costs and adverse social impacts that are likely to be experienced by the affected families or even after the proposed mitigation measures, the affected families remained at risk of being economically or socially worse, as a result of the said land acquisition and resettlement.

1.7Approach & Methodology to Conduct Social Impact Assessment

The approach that was adopted to conduct social impact assessment and to prepare SIMP is described below and is structured on the scope of work. The SIA has been prepared in accordance with the RTFCTLARR Act, 2013. Following figure represents the approach and methodology of SIA study in the form of flow.

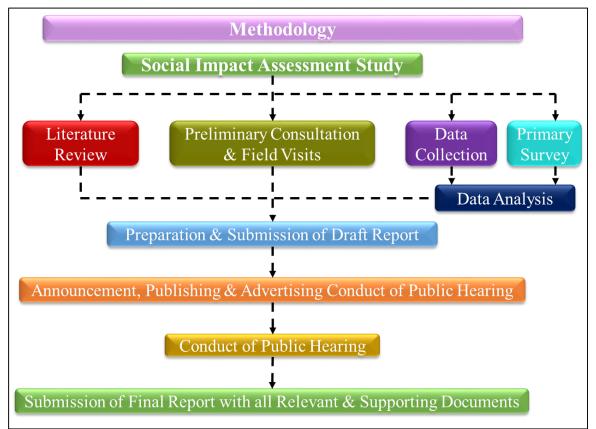


Figure 1.1 Approach & Methodology

The objective of Social Impact Assessment (SIA) is to prepare a complete inventory of structures, affected families and persons and to identify social impacts. In order to capture

data for the present exercise, numerous primary and secondary data sources were consulted. Further, the indicative methodology to study above mentioned aspects of SIA is briefly presented in Table 1.1–

S.N	Attributes of SIA	Description of Methodology	Source	
1	Assess whether the proposed acquisition serves public purpose	Reference to Public Purpose as defined under Section 2 (1) of The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013.	RFCTLARR Act, 2013	
2	Estimate number of Affected families and number of families among them likely to be displaced	From revenue records, obtained from District Administration Office. Conducted survey in proposed area through structured schedule by interviewing.	1. GMADA Records	
3	Understand the extent of land (public and private) houses, settlement and other common properties likely to be affected by the proposed acquisition	Ownership details of the land and type of land to be acquired, enumeration of affected properties, trees etc is given in Chapter-3	2. Survey / Field Visit	
4	Understand the extent of land acquired is bare minimum needed for the project	(As consulted with GMADA and concerned stakeholders, it is clear that land being acquired is of bare minimum need.)	1. Secondary sources	
5	Whether Acquisition at other place is found not feasible.	Alternative analysis of location of project.	2. Survey / Field Visit	
6	Study of social impacts, nature and cost of addressing them and impact of these social cost on overall cost of the project vis-à-vis benefit of the project.	Described in Chapters 3. & A		

The social assessment of the project has been carried out as per requirement of RFCTLARR Act, 2013. The details of methodologies include:

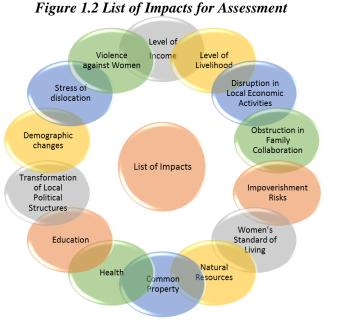
- Socio-Economic Field Survey: In order to study the impacts of land acquisition, a socioeconomic survey was carried out during the month of June 2021. The data was collected through structured schedule from respondents through personal interviews.
- Stakeholder's Consultation and Public hearing: Consultations with all stakeholders was carried out at individual and village level regarding likely impacts of land acquisition on the livelihood of the people and society.

1.8 Social Impacts

The social impact for the acquisition of land for the project will be been classified as -

- A. Impact during Pre-construction stage
- B. Impact during Construction Stage
- C. Impact during Operation stage

The main aim of the Social Impact Management Plan is to ensure that the various adverse impacts are mitigated and the positive impacts are enhanced. The social impact management measures shall be implemented during the various stages of the project viz. Pre-construction stage, Construction Stage and Operational Stage. Nature of impacts on different parameters will be identified by calculating the majority of responses given by respondents after consultation with stakeholders, field visits and desk review. A description of the various impacts is identified during different stages of construction which is presented in Chapter-4.



1.9 Consideration for Alternatives

While conducting Social Impact Assessment study, alternatives have to be considered before finalizing the best suitable alternative for the respective project. According to the details provided by the requiring body the most suitable alternative options will be selected in consultation with the stakeholders.

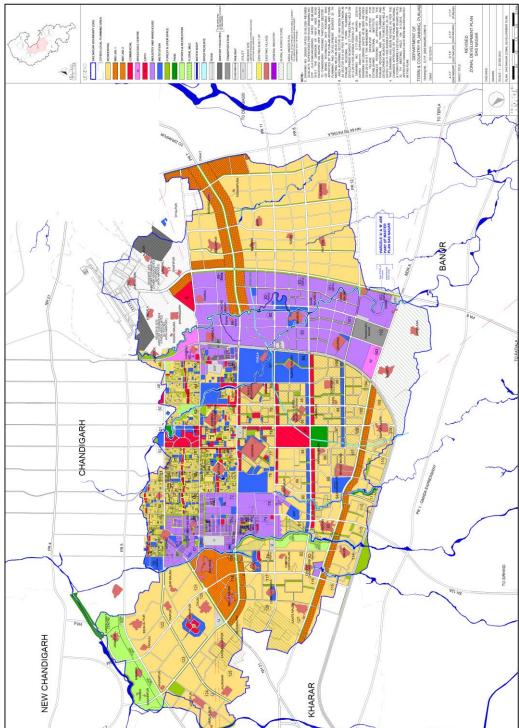
1.10 Determination of Compensation

The collector shall adopt the prescribed criteria to assess and determine the amount of compensation as per section 26, 27 and first schedule of RFCTLARR Act, 2013. The study has limitation for the determination of compensation.

2. Project Details & Team Composition

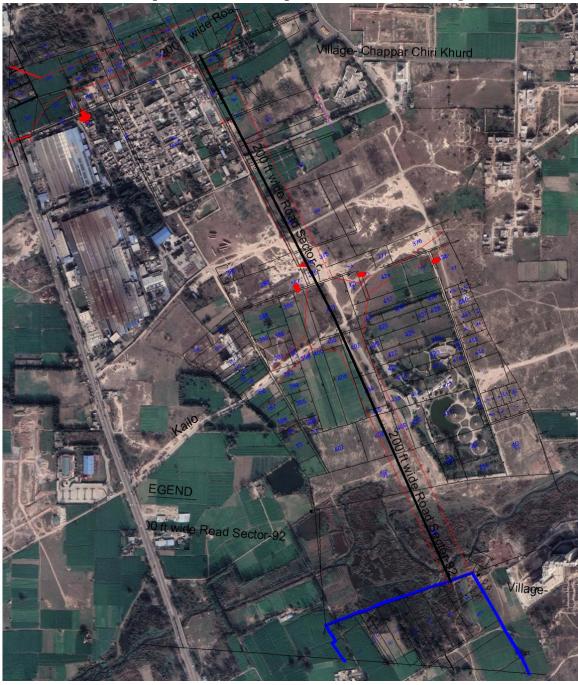
2.1 Location of Project

The land for the proposed acquisition of land for sector dividing road 92 and 92-Alpha for disposal of storm sewer of Master Plan of S.A.S. Nagar LPA, 2031 is located at two Gram Panchayats namely Chhppar Chiri Khurd (hadbast number- 194), and Landran (hadbast number- 37), Tehsil Mohali, District Sahibzada Ajit Singh Nagar.



Map 2.1 Master Plan of S.A.S. Nagar LPA, 2031

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Map 2.2 Location of Proposed Area on Satellite Image

2.2 Proposed Area for Project

The selected land measures 23.7708 acre. The length of the sector dividing road 92 and 92-Alpha for disposal of storm sewer, for which land is proposed to be acquired is 1.4 km only. The proposed land acquisition falls under the jurisdiction of two Gram Panchayats. Majority of the proposed land is falling under the Gram Panchayat Chappar Chiri Khurd i.e., 23.6563 acre only.

2.3 Justification of Public Purpose

One of the key objectives of the Social Impact Assessment is to examine the nature of proposed project, whether the proposed project serves as a public purpose project. The

proposed land acquisition for sector dividing road 92 and 92-Alpha for disposal of storm sewer as per approved Master Plan of SAS Nagar LPA, 2031 is required for the following public purposes:

One of the vision for SAS Nagar is to create a "Premier Township" in the Greater Mohali region of Punjab and as the benchmark for other towns in India to emulate. The premier township will be a showcase environment for its citizens to live, work, play, learn and strike business deals. The strategies to achieve this vision are as follows:

- ✓ To provide good connectivity with efficient road system to the Kharar-Ambala Road with S.A.S. Nagar and adjourning towns and cities.
- ✓ To integrate planning and upcoming development of Mohali with adjourning cities of Mohali and Chandigarh.
- ✓ To provide world class infrastructure and utilities including Storm Water Management, a comprehensive traffic transportation infrastructure facility that will satisfy the needs of locals & foreign investors in the area.
- ✓ In view of the growing urbanization and congestion of existing cities, proposed acquisition by GMADA would aid the smooth transportation of people.
- \checkmark To provide a variety and range of housing types for working and living community.
- \checkmark To boost the opportunity of premier township development in the identified area.
- ✓ It is hereby notified that the acquisition of land under the proposed project falls under the provision of section 2(I)-(e) of LARR Act, 2013 i.e., a project for planned development.

2.4 Team Composition

Faculty of Physical Planning & Architecture, Guru Nanak Dev University, Amritsar has been appointed for carrying out Social Impact Assessment (SIA) and preparation of Social Impact Management Plan (SIMP) in the area of two Gram Panchayat, District S.A.S Nagar. The proposed acquisition of aforesaid sector dividing road 92 and 92-Alpha for disposal of storm sewer would entail about 23.7708 acre of land. In this connection GMADA has proposed the acquiring of land under the Master Plan of SAS Nagar LPA.

A team of experts has been constituted by Guru Ramdas School of Planning and Department of Architecture jointly under Faculty of Physical Planning & Architecture, Main Campus GNDU to carry out SIA and prepare SIMP for above said land acquisition. (*Refer* Table 2.1)

Designation in Project	Name	Designation in University	Specialization	
Project Coordinator	Dr. Sarbjot Singh Behal	OSD to VC – GNDU	Architecture & Management	
	Dr. Karmjit Singh Chahal	Professor, Department of Architecture	Architecture & Management	
	Dr. Gopal Kumar Johari	Associate Professor, Department of Planning	Sociology, Geography & Spatial Planning Architecture, AutoCAD expert, Research & Training Architecture and Physical Planning, AutoCAD expert, Research & Training	
	Dr. Rawal Singh Aulakh	Assistant Professor, Department of Architecture		
Research Investigators		Assistant Professor, Department of Planning		

 Table 2.1 Team Composition for the Project

Designation in Project Name		Designation in University	Specialization	
	Sh. Mohit Soni	Urban & Regional Planner, Faculty of Physical Planning & Architecture	ArcGIS Expert, Urban & Regional Planning, Data Analysis, Report Writing	
	Sh. Rohan Soni	Research Associate, Faculty of Physical Planning & Architecture	Rural Planning, Research Community Participation Data Interpretation.	
	Ms. Priya	Research Consultant, Faculty of Physical Planning & Architecture	Stakeholders' Consultation, Sociology, Data Compilation	
	Sh. Karan Dawra	Junior Research Fellow	Data Collection & Surveying	

2.5 Schedule of Consultations

Consultative procedure has been a critical but important phase in the entire Social Impact Assessment process. The consultation process continued till the preparation of Social Impact Management Plan (SIMP). Social impact assessment ensured involvement of local communities through participatory planning and structured consultations. Public hearing will be conducted at village level to endorse important planning approaches and policies. It is hoped that linkages developed during this phase will ensure the involvement of stakeholders in the implementation of the project.

2.5.1 Objectives of Stakeholders' Consultations

The objective of stakeholders' consultations in Social Impact Assessment is to involve various stakeholders in the process of impact assessment and management planning. In this, the consultation will be helpful to know about local issues, sentiments, culture beliefs and opinions of local people. Through back-to-back consultation, strategies and recommendations to strengthen partnership between government and project affected families shall be identified. Overall, these consultations will help to develop specific proposal for resource mobilization in the affected area.

2.5.2 Type of Consultation

Following section highlights type of consultations -

- I. **Information Dissemination:** The dissemination process and the type of information shared with the stakeholders during consultation are described below: -
 - Information dissemination focused on the proposed project characteristics and land requirement for the development of 200 feet wide 92 & 92-Alpha sector dividing road for disposal of storm water.
 - During these consultations, maps given by GMADA were used to superimpose it on satellite image and Master Plan to explain about location of proposed land acquisition. This activity helped people to understand the impact on their assets and properties.
 - Banners carrying information and power point presentation about project were prepared and shared with the stakeholders and local public explaining proposed project. Apart from this, notification of the project issued by Government of Punjab has been distributed and displayed at Dharamshala for wider public awareness.

- II. **Consultation during Sample Survey Stage:** SIA at this stage included consultations at individual level, groups of local people and focused group discussions at strategic locations such as Gurudwaras, Dharamshala, Schools, Anganwadi Centre etc. to understand acceptability of the project impacts related to land acquisition. The overall objective of these consultations was to ensure that people participate willingly; they are allowed to express their concerns and opinions; and agreements are reached on their suggestion/preferences which will be eventually shared after preparation of SIA report.
- III. Public Hearing: Public Hearing was held in the Gurudwara, Chappar Chiri Khurd (project affected area) on 09.06.2021 as per provision of the section-5 of the RFCTLARR Act, 2013 at Gurudwara Sahib, Chappar Chiri Khurd (a public place), where the representatives of LAC, GMADA, Social Impact Assessment (SIA) Team, GNDU, Amritsar were present.

3. Existing Scenario

3.1 Land Assessment

3.1.1 Information from Land Inventories and Primary Sources

The total land requirement as proposed for the acquisition of 23.7708 acres. The property lies near the National Highway-5 (Kharar-Banur Road), and thus these are the potential unutilized land in the premier residential sector which fulfil the aim of Master Plan of S.A.S. Nagar LPA, 2031. Table below gives detailed description of the type of land of each of the *Khasra* numbers according to the latest land records available.

	Hadbast Vice and Na		Area to be acquired		
Village	No.	Khasra No.	Bigha	Biswa	
		350 min	1	18	
		352 min	1	10	
		353 min	2	4	
		354 min	4	15	
		355 min	0	6	
		363 min	7	18	
		367 min	5	10	
		368	7	15	
		369 min	2	7	
		375 min	5	10	
		378 min	1	10	
		379 min	3	4	
		387 min	0	6	
		398 min	0	5	
		400 min	2	10	
Chappar Chiri		401 min	14	6	
khurd	194	402 min	1	17	
		403 min	6	12	
		404 min	5	4	
		405 min	1	0	
		406 min	1	4	
		408 min	5	10	
		409 min	1	15	
		415 min	0	11	
		416 min	0	6	
		421 min	0	4	
		422 min	0	1	
		426 min	0	2	
		431 min	0	12	
		432 min	1	0	
		433/1 min	0	7	
		433/2 min	2	5	
		453/1/3 min	6	19	
		454 min	16	8	
		Total	113	11	

Table 3.1 GP-wise Details of Identified Khasra Numbers for Land Acquisition

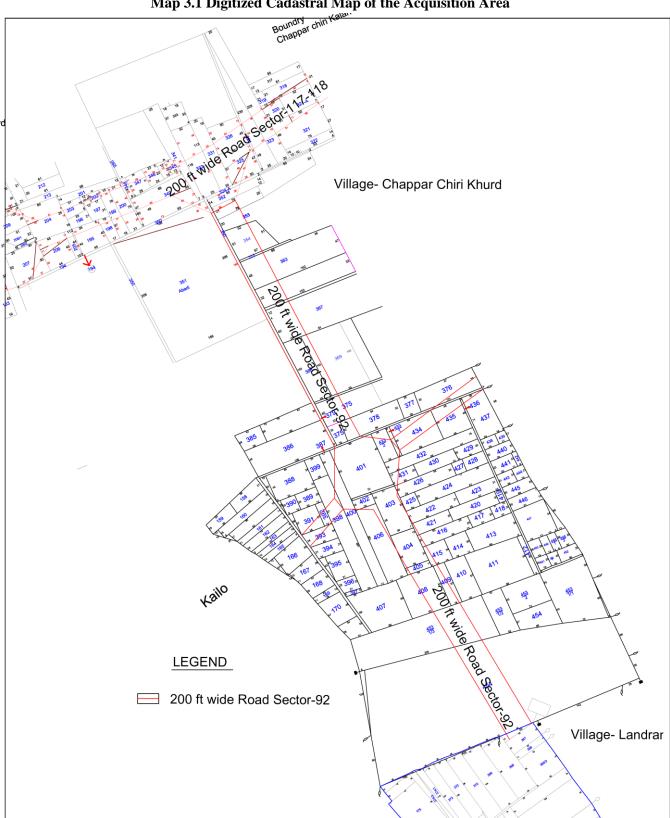
Report on Social Impact Assessment for Land Acquisition

(Master Plan Sector Dividing Road 92 & 92 Alpha for Disposal of Storm Sewer)

Village	Hadbast No. Khasra No. –	Area to be acquired		
vmage		Bigha	Biswa	
Landran	37	367 min	0	11
		Total	0	11

Source: Field Visit, June 2021.





Report on Social Impact Assessment for Land Acquisition

(Master Plan Sector Dividing Road 92 & 92 Alpha for Disposal of Storm Sewer)

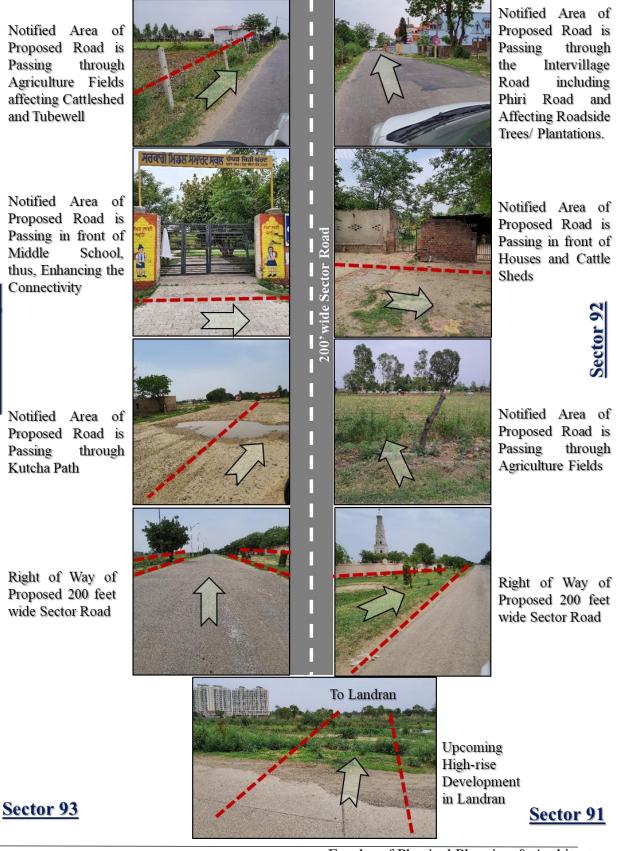
Table 3.2 GP-wise Details of Assets and Personal Consultations for Land Acquisition														
	Land Owner Detail	Khasra	l acq	Area to be cquired B-B Ownership Title Existing Structures B-B Fard (W) People Fard (W) / Centre /	tures		Remark / Use							
		No.	B	(К		Cov / State	/ Using	House	Shop/ Office	Other	T/wells, B/wells	Irrigation Pipe	Trees (Fruit, Non)	
1	Civil Panchayat Deh (Rasta)	0//1- 1206/350 min	1	18	7-8 km	Panchayat	No	No	No	No	No	No	No	Farming
4	Cultivator- Sukhwinder s/o gurcharan singh, iqbal singh s/o Gurbaksh Singh	354 min	4	115	6-18 km	Shamlat	No	No	No	Cattle shed	5-HP at 50' and Motor Room		F-4, NE 16	Farming; 3 Agri- Labourors
5		355 min	0	6	0-13 km	Pati	No	No	No	No	No	No	No	Farming
6	Shamlat Patti	379 min	3	4	3-6 km		No	No	No	No	No	No	No	Farming
7		387 min	0	6	2-16 km		No	No	No	No	No	No	No	Farming
1	Gurmeet s/o Bakshish (Suchha, Nirmal, Gurminder, Jaspinder s/o jagat Singh)	400 min	2	10	9-9 km		No	No	No	No	Yes	6" Dia, 600' long		Farming
2	Detail Missing	406 min	1	4	2-0 km		No	No	No	No	No	9" Dia, 400' long	20	Farming
2:	Iqbal s/o Gyan Singh and Many others	405 min		0	1-1 km	n Pvt	No	No	No	No	No	No	No	Farming
2	Singh, Sukhdev s/o		5	10	10-8 km		No	No	No	No	No	No	No	Farming
2.	Harcharan Singh, Gurwinder s/o Teza singh and Many others	453/1/3	6	19	37-9 km		No	No	No	No	No	No	No	Farming
3	Gurmeet s/o Bakshish singh, - Succha, Nirmal, Gurminder, Jaspinder s/o Jagat singh, Parbhat smith w/o Michal smith	432 min	1	0	7-0 km		No	No	No	No	No	No	No	Farming

Table 3.2 GP-wise Details of Assets and Personal Consultations for Land Acquisition

Source: Field Visit, June, 2021

Map 3.2 Existing Scenario of Affected Area

Sector 116



Sector 92-Alpha

Proposed Road is Passing Kutcha Path

Proposed 200 feet wide Sector Road

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3.1.2 Cropping Pattern

General land use pattern of the affected villages indicated that the project area has mixed land use largely dominated by agriculture. The project area is predominantly based on subsistence agriculture with wheat as major *Rabi* crop and other crops in the *Kharif* season. Main production from the agriculture land in all the GPs is wheat (1^{st}) , rice (2^{nd}) and maize (3^{rd}) .

3.1.3 Distribution of Trees/Plants on Acquired Land

During the survey, efforts were made to collect information about the number of trees on the affected land under study area. During the visit as well as stakeholder consultation, it was revealed that there are around 41-trees in affected area, out of which, 5 units of trees are fruit-trees in nature. Majority of trees are located around *Kuchcha* path.

3.1.4 Estimation and Enumeration of Affected Families

- A. **Details of Affected Families:** In the affected area (all 2-identied Gram Panchayats), 46 respondents were surveyed to carry out the social impact assessment. Some of the affected families could not be contacted despite the repeated visits to the area/household due to their absentee landlordism, migration to the other villages and district / states of the country or abroad.
- B. **Indirectly Impacted:** From the secondary stakeholder survey, it is evident that no family/ person will be negatively impacted by this acquisition as none of them either reside nor depend for their livelihood on the property. However, the surveys also suggest that there will be a positive impact of this acquisition for the society at large. The surveys with various stakeholder reveal that the business of the local shop owners would increase.

3.1.5 Land use and Livelihood

Presently, most of the affected land has remained as unused property from quite some years. *Khasra*-wise details of type of land has been explained in *Table 3.1*. No families are found whose livelihood was directly/indirectly affected due to acquisition of these land parcels.

3.2 Demographic Profile of Area

The S.A.S Nagar district ranks 20th in area and 12th in population with contribution 3.6 per cent of the total population of the State. Average population size of a village in district (1,117) is lower than that of the state (1,425). Bar Majra (7,031) is the largest village in the district followed by Jagatpur (6,673) in the district. Whereas, Landran and Chhappar Chiri Khurd are villages with average and below average population respectively in Tehsil –Mohali in district.

Indicators		Punjab State	S.A.S. Nagar District	Chappar Chiri Khurd (194)	Landran (37)	Total of All GPs
Population		27,743,338	994,628	706	2338	3,044
Area (Ha)				255	280	535
Density (PPH)	2011			2.77	8.35	5.69
Household		5,486,851	203,886	141	460	601
Average HH Size		5.1	4.9	5.0	5.1	5.1
Sex Ratio		895	879	945	885	915
Workforce		9,897,362	355,995	213	702	915

Table 3.3 Comparative Study of Demographic Profile of Study Area

Report on Social Impact Assessment for Land Acquisition

Indicat	Indicators		S.A.S. Nagar District	Chappar Chiri Khurd (194)	Landran (37)	Total of All GPs
	Participation Rate (%)	35.70%	-35.80%	41.33%	61.57%	
	Main	8,450,936	316,236	182	700	882
	Workers (%)	85.39%	88.83%	85.45%	99.72%	96.39%
	Marginal	1,446,426	39,759	31	2	33
	Workers (%)	14.61%	11.17%	14.55%	0.28%	3.61%
	Cultivators	1,934,511	40,867	33	27	60
	(%)	19.55%	11.48%	15.49%	3.85%	6.56%
	Agricultural	1,588,455	21,791	4	42	46
	Labourers(%)	16.05%	6.12%	1.88%	5.98%	5.03%
	Household	385,960	13,501	0	18	18
	Industry (%)	3.90%	3.79%	0.00%	2.56%	1.97%
	Other	5,988,436	279,836	176	615	791
	Workers (%)	60.51%	78.61%	82.63%	87.61%	86.45%

(Master Plan Sector Dividing Road 92 & 92 Alpha for Disposal of Storm Sewer)

Source: Census of India, 2011.

The decadal population growth rate in the district is 33.2% which is higher than the state (13.9%). S.A.S Nagar district is relatively more urbanized than the State with 54.8% of its population resides in urban areas as compared to 37.5 per cent of the State. The sex ratio in the district (879) is lower than the state (895). It is ranked 16^{th} among the districts of the state on this parameter. Child sex ratio in the district (841) is also lower than the state (846). It ranks 13^{th} among the districts in the state. The district has 31.8% and 4.0% main workers and marginal workers respectively of total population. (*Refer* Table 3.3)

3.3 Socio-economic Profile of Area

This highlights the socio-economic of the project area and the persons affected by the land acquisition. The data has been collected through census surveys of project affected persons, project affected families and same has been analysed to establish the socio-economic and cultural profile of the project area. Most of the people in the project area are dependent on self-employment/ private businesses and jobs in industries and i.e., in the secondary and tertiary sectors.

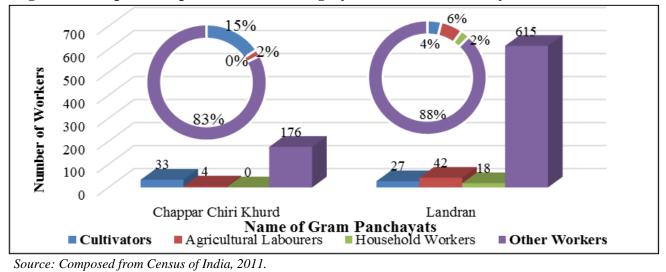


Figure 3.1 Graphical Representation of Category of Workforce in Study Area

3.3.1. Social Category

In India, the society is stratified into different groups at economic and social level. This means they are ranked up and down according to their social category mainly by their respective castes. None of the village have any Schedule Tribe (ST) population.

		Sched	lules Caste	Male SC Female SC		nale SC	
Gram Panchayat	Total Population	Total	Share in Total Population	Total	Share in SC Population	Total	Share in SC Population
Chappar Chiri Khurd	706	562	79.60%	293	52.14%	269	47.86%
Landran	2,338	431	18.43%	226	52.44%	205	47.56%
Total	3,044	993	32.62%	519	52.27%	474	47.73%

Table 3.4 Scheduled Caste Population in Study Area

Source: Census of India, 2001 & 2011

When conducting a SIA study at village level then it is important to know the social categories of respondents because issues and impacts on different categories can be different. Social categories of respondents are shown in Table 3.5, which indicates that 47.83 per cent of the respondents in this study were from general category and 23.91 per cent were from backward class. None of the village currently have any Schedule Tribe (ST) population.

Table 3.5 Social Category of the Respondents

Social Category	Number	Percentage
General	22	47.83%
Backward Class (BC)	11	23.91%
Scheduled Caste	13	28.26%
Scheduled Tribes	0	0.00%
Total	46	100.00%

Source: Primary Survey, June 2021.

3.3.2. Household Annual Income

The shareholders are prosperous and are managing different family ventures. Some of the families enjoyed a status of the undivided family so it is hard to evaluate the incomes individually. The majority of the families (65.22%) has income more than rupees two lakh annually while 23.91 per cent has income between Rs. 1-2 lakh per annum. Whereas, about 10.87 per cent families have the income of rupees twenty thousand to one lakh annually. This shows that a large number of respondents had income above rupees one lakh annually. None of the respondent revealed that their per annum income is less than 20,000. (*Refer* Table 3.6)

Table 3.6 Household Annual Income level of the Affected Families

Income Level (Rs.)	Number	Percentage
Less than 20,000	0	0.00%
20,000 to 1 Lakh	5	10.87%
1 Lakh to 2 Lakh	11	23.91%
More than 2 Lakh	30	65.22%
Total	46	100.00%

Source: Primary Survey, June 2021.

3.3.3. Educational Level

Education plays a significant role in overall development individuals as well as society as whole, hence, the following table shows the education level of the respondents. Major proportion of the respondents were matriculates i.e. 36.96 per cent followed by 28.26 per cent were senior secondary educated. Also 17.39 per cent studied at higher education level. Only 4.35 per cent of the respondents were illiterate. (*Refer* Table 3.7)

Education Level	Number	Percentage
Illiterate	2	4.35%
Primary	6	13.04%
Matriculation	17	36.96%
Senior Secondary	13	28.26%
Graduation (Higher Education)	8	17.39%
Total	46	100.00%

Table 3.7 Education level of the Affected Families

Source: Primary Survey, June 2021.

3.3.4. Occupation

The different occupation level of respondents is shown in Table *3.8.* Out of total 46 respondents, around 30.43% of the respondent dependent on agricultural and allied sector for employment and 56.52 per cent were doing private job for sustainable livelihood in different sector of economy. A very few (13.04%) of the respondents were government employees.

Table 3.8 Occupation of the Respondents

Occupation	Number	Percentage
Agriculture and Allied sector	14	30.43%
Government Employee	6	13.04%
Others	26	56.52%
Total	46	100.00%

Source: Primary Survey, June 2021.

3.4 Religious & Cultural Profile of Area

The religion of the respondents was also seen. It was observed that majority (80.43%) of the respondents follow Sikh religion whereas only 19.57 per cent were Hindu religion followers. (*Refer* Table 3.9)

Table 3.9 Religion of the Respondents

Religious Category	Number	Percentage
Hindu	9	19.57%
Sikh	37	80.43%
Total	46	100.00%

Source: Primary Survey, June 2021.

3.5 Conclusion

Based upon study, the team has come up with the following conclusion -

- The notified area doesn't contain any living structure, hence any 'Rehabilitation & Resettlement Plan' is not required in this case. Existing structures include number of cattle sheds, which is temporary in nature and it can be easily shifted to another place by the affected party.
- The affected area has a privately owned operational tubewell and 600' pipe line for irrigation purposes, which can be shifted with appropriate compensation to the affected owner. These effects could be optimized through appropriate provisions and compensations.
- A vast area of land is used under multi-crops and used for income generation. But, none of the stakeholder will be deprived of agricultural land for livelihood.
- Overall project has unlimited benefits over bare minimum social impacts, after careful examination of various parameters of cost and benefit (both positive & negative impacts).
- As per earlier discussions, the society has no objection over land acquisition at any part or parcel of land except for the water logging problem, during as well as after completion of the project.
- As per individual consultation done with various stakeholders, the village *Abadi* area is seven feet lower than the level of stream (*Nadi*) area. This may lead to flood in the *Abadi* area during monsoon season. Thus, it is **strongly suggested** to calculate / recalculate the proposed runoff water of the *Nadi* catchment area as per proposed landuse of the region. Accordingly, **strong provisions** must be made in the 'City Drainage Plan' to reduce the water logging / hazard vulnerability of the settlements. Further, it is recommended to not disturb the natural passage of 'Nadi' or allied tributaries.
- The purpose of the land acquisition (i.e., construction of 200' wide Road for storm water management in the sector 92 and 92 Alpha) is under the category of 'Planned Development' (i.e., implementation of Master Plan of SAS Nagar LPA, 2031) which has already been approved. Thus, the location of the project cannot be changed. Hence, no alternative is possible for the said project.

4. Social Impacts

4.1 Framework and Approach to Identifying Impact

SIA seeks to assess, in advance, the social repercussions that are likely to follow from projects undertaken to promote development, such as dams, mines, industries, highways, ports, airports, urban development and power projects. It is a tool that can help decision makers to foresee the likely negative impacts of their actions so that steps necessary to prevent or at least to contain them could be taken in time. As an aid to the decision making process, SIA provides information on social and cultural factors that need to be taken into account in any decision that directly or indirectly affects the lives of project area people.

According to Inter-Organizational Committee on Principles and Guidelines for Social Impact Assessment (IOCPGSIA 2003), a conventional way of conceptualizing social impacts is as changes to one or more of the following:

- "People's way of life that is, how they live, work, play and interact with one another on day to day basis;
- ✤ Their culture that is, their shared beliefs, customs, values and language or dialect;
- Their community its cohesion, stability, character, services and facilities;
- Their political system the extent to which people are able to participate in decisions that affect their lives, the level of democratization that is taking place, and the resources provided for this purpose;
- Their environment the quality of the air and water people use; the availability and quality of food they eat; the level of hazard or risk, dust and noise they are exposed to; the adequacy of sanitation, their physical safety, and their access to and control over resources;
- Their health and wellbeing health is a state of complete physical, mental, social and spiritual wellbeing and not merely the absence of diseases or infirmities;
- Their personal and property rights particularly whether people are economically affected, or experience personal disadvantage which may include a violation of their civil liberties;
- Their fears and aspirations their perceptions about their safety, their fears about the future of their community, and their aspirations for their future and future of their children;
- Area of impact under the proposed project, including both land to be acquired and areas that will be affected by environmental, social or other impacts of the project have been identified by the SIA team with help of several visits to the proposed area;
- Their quantity and location the land proposed to be acquired for the project was identified with the help of field visits to project area and analysis of the revenue records provided by the acquiring body;
- Bare minimum The fact as claimed by the acquiring body that the land proposed for acquisition is the bare minimum required was verified with the help of structural plan provided by acquiring body;

- The possible alternative the site for the project and its feasibility was analysed by visiting the site at project area. The claim by acquiring body that the proposed land is the best suitable option was verified by SIA team;
- Land land measuring 23.7708 acres has been proposed to be acquired. This land will be acquired according to provisions of Land Acquisition Rehabilitation & Resettlement Act 2013 for the storm water management through 200 feet wide road of Sector 92 & 92-Alpha, SAS Nagar. The SIA team visited the site and conducted the transect walk at the above mentioned location.
- Possibility of use of any public, unutilized land for the project to see whether land belonging to the Gram Panchayats or Government land can be used in project.

The process of conducting Social Impact Assessment was designed in a manner which involved all stakeholders in systematic approach to assess the impact of proposed acquisition. The framework & approach to identifying the impacts is shown in following steps –

Step 1: Formation of SIA team

Step 2: Literature Review

Step 3: Meeting with various Stakeholders

Step 4: Data Collection (Tools: Questionnaires, FGD, Schedule)

Step 5: Data Processing

Step 6: Reporting

The main impacted from the acquisition would be the primary stakeholders. Since there is no agricultural activity on proposed land therefore there is no loss to food security.

4.2 Description of Impacts at Various Stages of Project Cycle

The social impact for the acquisition of land at 2-Gram Panchayats for the proposed 200' wide road of Sector 92 and 92-Alpha for storm water management, SAS Nagar has been classified as –

- I. Impact during Pre- construction stage
- II. Impact during Construction Stage
- III. Impact During Operation stage

Table 4.1 Assessment of Social Impacts at Different Phases of Project

Pre-construction	Construction	Operation
1 0	Dust & Air Pollution	Increase in land value and connectivity improvement with Chandigarh
Acquisition of Cattle Sheds (Temporary Structure) of local people	Noise Pollution	Vulnerability Reduction & Opportunity Enhancement for Vulnerable Section of Society
Acquisition of Trees (both Fruit-tree and Non-fruit-tree)	Construction	Management
Acquisition of Operational Tubewells as a source of irrigation	Rainfall occurs	Attract Planned Development resulting in enhancement of Quality of Life & Employment

Source: Assessment based upon field visit and stakeholder consultation, June 2021.

Due to the non-availability of a detailed project proposal/feasibility study for the project a detailed assessment could not made. The main aim of Social Impact Management Plan is to ensure that various adverse impacts are mitigated and positive impacts are enhanced. Social impact management measures shall be implemented during various stages of the project viz. Pre-construction stage,

Construction Stage and Operational Stage. A description of various impacts is identified during different stages of construction which is presented in Table 4.1.

Impact	Positive	Negative	No Impact
Level of Income	Yes	Yes	-
Level of Livelihood	Yes	-	-
Disruption in local economic activities	-	-	Yes
Obstruction in Family collaboration	-	-	Yes
Impoverishment Risks	-	-	Yes
Women's Standard of living	Yes	-	-
Natural Resources (Soil, air, water, forests)	-	Yes	-
Common Property	Yes	-	-
Health	Yes	-	-
Education	-	-	Yes
Transformation of local political structures	-	Yes	-
Demographic changes	-	-	Yes
Stress of dislocation	-	-	Yes
Violence against Women	-	_	Yes
Existing Livestock	-	_	Yes
Vulnerable Section of Society	Yes	-	-

 Table 4.2 Anticipated Impacts in Study Area

Source: Assessment based upon field visit, June 2021.

These calculations are drawn by calculating the majority of responses given by respondents during survey stage. As mentioned in above table, majority of the respondents feel that their level of income and livelihood will have both positive and negative impacts and village demography and stress of dislocation will don't have any impact after the acquisition of land. There will be no impacts on local economic activities, family collaboration, impoverishment, local political structures and violence against women. There will be positive impacts on common property, education, women's standard of living after land acquisition. Whereas, some of the respondents feel that there will be negative impacts of land acquisition due to the proposed road in terms of water logging, flooding and electric shocks. Thus, some of the negative impacts on natural resources have been observed which can be easily mitigate with due considerations. After consultation with stakeholders, field visits and desk review, nature of impacts on different parameters have been identified. (*Refer* Table 4.3)

S.N	Impact	Nature of Impact	Reasons		
1	Land -ve Loss of Agricultural Land		Loss of Agricultural Land		
2	Land Price	+ve	Land Price will increase after upgrading connectivity.		
3	Livelihood & Income	+ve	Rise in Employment Opportunities & Market Activities. But relocation of existing cattle sheds		
4	Physical Resources		No loss to physical resources		
5	Private Assets	-ve	loss to Tubewell and irrigation pipeline, which is operational and used for irrigational purposes.		
6	Public Services & Utilities				
7	Health & Education	+ve	Connectivity upgradation will lead to reduction in vulnerability.		
8	Cultural & Social Cohesion				
9	Gender based Impacts				
Source:	Assessment based upon field visit	, June 2021.			

Table 4.3 Indicative list of Social Impacts	Table 4.3	Indicative	list of Social	Impacts
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4.2.1 Socio-economic Impact of Land Acquisition

One of the important components of the land acquisition process has been to access the socioeconomic impact on the people after the acquisition of land. The response of the respondents on various economic issues is presented in Table 4.4 below –

Sr. No	Problems	Positive	Negative	No Impact
1	Type of Employment	28.00 %	24.00 %	28.00 %
2	No. of days of Employment	14.00 %	16.00 %	70.00 %
3	Employment Pattern	82.00 %	18.00 %	0.00 %
4	Family Income	54.00 %	32.00 %	12.00 %
5 6	Food Security	12.00 %	16.00 %	78.00 %
	Standard of Living	66.00 %	26.00 %	8.00 %
7	Local Economy	60.00 %	18.00 %	22.00 %
	Average Grand Total	52.57 %	14.29 %	35.14 %

Table 4.4 Impact on Livelihood and Income

Source: Primary Survey, June 2021.

All the respondent (34.00%) were of perception that land acquisition will have positive impact on type of employment. In addition to this, 38 per cent of the respondents revealed that there will be no impact on employment pattern. With respect to the family income of affected peoples after land acquisition, 54 per cent of them opined that there can be arise in their present family income. Whereas, only 12 per cent people felt no impact on their present family income. On the issue of food security, standard of living and local economy, 12 per cent followed by 86 per cent and 60 per cent of the respondents expressed that there will be positive impact as acquired land is out of the vicinity of concerned *Abadi* areas.

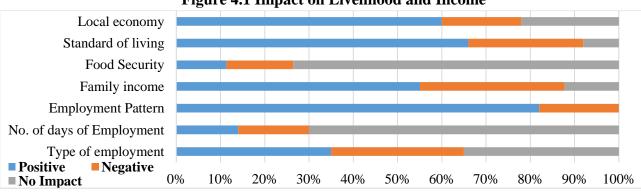


Figure 4.1 Impact on Livelihood and Income

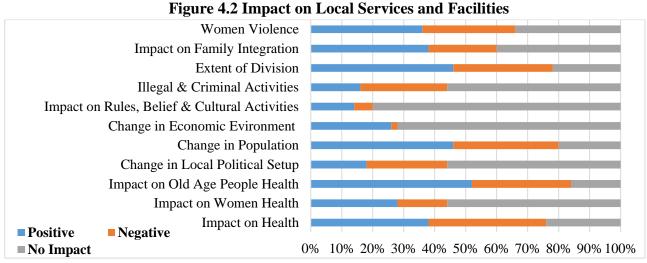
Source: Compilation of Individual Stakeholder Consultation During Primary Survey, June 2021.

To sum up, the response of the families who are residing in surrounding of land acquisition on various economic issues was positive and majority of them i.e., 52.57 per cent are in favour of land acquisition, whereas, only 14.29 per cent favoured some negative extend.

4.2.2 Impact on Local Services and Facilities

With respect to impact of land acquisition on local services and facilities, 38.00 per cent of respondents expressed that due to this acquisition of land, there will be negative impact on village through change in population. Further, 22.00 per cent of respondents were of an opinion that during

construction and post construction (operation) of these facilities, there will be some form of negative impact on health due to dust, air pollution and concrete environment. Also 24.00 per cent of respondents were of an opinion that in general it will have negative impact on family integration (Table 4.5).



Source: Compilation of Individual Stakeholder Consultation During Primary Survey, June 2021.

Except the above mentioned problems, majority of the respondents were of a view that land acquisition will not impact on local services and facilities. While some raised issues like impact on health due to *Kuchha* pond, irrigation problem due to tubewell, and concern of underutilisation of leftover small agricultural patches on left and right bank of 200' road. Whereas, many of the local residents are happy to see the raise in land value, improved connectivity, raising standard of living and employment activities and thus reducing in vulnerability among villagers. The impact is summarised in the following Table 4.5–

S.N	Problems	Positive	Negative	No Impact
1	Impact on Health	26.00	30.00	44.00
2	Impact on Women Health due to Project Activities	50.00	0.00	50.00
3	Impact on Health of Old Age People	50.00	0.00	50.00
4	Change in Local Political Setup	0.00	0.00	100.00
5	Change in Population	0.00	0.00	100.00
6	Change in Economic Environment	62.00	38.00	0.00
7	Impact on Rules, Belief & Cultural Activities	28.00	18.00	54.00
8	Illegal and Criminal Activities	20.00	20.00	60.00
9	Extent of Division	0.00	0.00	100.00
10	Impact on Family Integration	0.00	0.00	100.00
11	Violence against Women	30.00	10.00	60.00
	Average Grand Total	24.18	10.55	66.27

 Table 4.5 Impact on Local Services and Facilities (in %)

Source: Primary Survey, June 2021.

Form the above Table 4.5, it is clear that around 24.18 per cent stakeholders think that the upcoming road will have positive impact on the local services and facilities of the villages primarily on economic environment, women violence, women health and old age people. Whereas, 10.55 per cent stakeholders think that the upcoming road will have negative impact primarily on existing economic

activity like agriculture, poor health due to blockage of pond's outlet and illegal and criminal activities due to coming-up of 200' sector road.

4.3 Findings of Social Impacts and Mitigation Measures

Due to the unavailability of a clear Project proposal/ feasibility study, project costs and phases, core design features, proposed infrastructural facilities, workforce requirements (temporary and permanent), outputs, risks, production targets etc. a detailed social cost and benefits analysis could not be performed. Though, it is very difficult to quantify actual cost of social impact based on severity of land acquisition. However, social costs are calculated by consulting local people, comparing project benefits and negative impacts from development of SAS Nagar. The project will entail a multitude of benefits to the local people of the surrounding areas. The project will have following benefits for the people:

- ✤ Maximum Liveability Potential.
- Sustainable Living.
- Enhanced Security.
- ✤ Better Return of Investment.
- Enhanced asset life.
- Reduced Vulnerability

Important issues were discussed during consultation with the stakeholders individually and also at the village level. These issues were related to social impacts like loss of livelihood, compensation for acquired land and properties. After consultation with stakeholders, field visits and desk review, nature of impacts on different parameters have been identified.

Table 4.6 Analysis of Various Possible Social Impacts

Positive Impact	Negative Impacts	Remarks
Rise in land value	Loss of Agricultural land	
Maximum Liveability Potential due to improvement in Quality of Life and other Employment Opportunities Connectivity Enhancement	Temporary Loss of Trees	After studying various parameters of cost and benefit (positive and negative impacts), it is found that
Sustainable Living Enhanced Security		because of planned development, proposed land acquisition and
Better Return of Investment Reduction in Vulnerability		construction would benefit local community at large.
Planned Development		
Storm Water Management		

Source: Assessment based upon field visit and stakeholder consultation, June 2021.

These calculations are drawn by calculating the majority of responses given by respondents during survey stage. As mentioned in *Table 4.4*, majority of the respondents feel that their level of income and livelihood will have positive impacts and village demography and stress of dislocation will have negative impact after the acquisition of land. There will be no impacts on local economic activities, family collaboration, impoverishment, common property, education, local political structures and violence against women after land acquisition. Based upon these impacts, proposed mitigation measures are described in following Table *4.7*.

1 a	Table 4.7 Proposed Mitigation Measures			
N.	Type of Impact	Status	Proposed Mitigation Measure	
1	Loss of Land	Yes (Productive Private &	Compensation as per the RFTLARR	
	Loss of Land	Panchayati land)	Act, 2013.	
2	Loss of Built-up Property /	Temporary Structures of	Reconstruction/ provision is proposed by	
2	Structures	Cattle Shed & Tubewell	the developer i.e., GMADA.	
3	Loss of Productive Assets	Yes (Irrigation Tubewell)	Compensation as per LARR Act, 2013	
4	Loss of Trees	Yes (Total 41)	Replantation of Trees	
5 I	Loss of Livelihood	Cattlesheds	Compensation as per RFCTLARR Act,	
	Loss of Livenhood	(Temporary in Nature)	2013.	
6	Loss of Utility Lines	No		
7	Loss of Common Property	No		
'	Resources	140		
8	Loss of Access to civic Service /	No		
0	common property Resources	140		
_	Loss of Cultural Properties	No		
10	Displacement of Vulnerable	No		
10	Groups	110		

Table 4.7 Proposed Mitigation Measures

Source: Assessment based upon field visit and stakeholder consultation, June 2021.

4.4 Alternatives Considered

The acquisition of this land will help in development of sectors under the vision of 'Premier Township' which would enhance the connectivity of area manifolds and further help in harmonious development of the Greater Mohali Region. Thus, no piece of land can be considered as an alternative for the project.

The project will be very beneficial to form continuity in Mohali's Grid Pattern. The inputs for the selection that were provided by the requiring body have been verified by SIA team during Transect Walk & Field Visit. Further, the purpose of the land acquisition (i.e., construction of 200' Road) is under the category of 'Planned Development'. Planned Development will be achieved only through implementation of Master Plan of S.A.S. Nagar LPA, 2031 which has already been approved. Thus, the location of the project cannot be changed. Hence, no alternative is possible for the said project.

4.5 Recommendations on Acquisition

Above all, the project is aimed at reducing cost and time of travel and road accidents to a great extent. Thus acquiring the land is inevitable for this project. It may result in the integral development of the region. As mentioned above, there are some negative social impacts of this project due to the proposed land acquisition but the proposed project of proposed project of 200' wide road of sector 92 & 92-Alpha, SAS Nagar will have more positive impacts than negative impacts. The land acquisition may cause many people to lose their lands, farms, and utilities but on the other hand a management of storm water along with transportation facility, is brought into and that is for a great cause. In addition to this, the project must involve community in upcoming new development and thus, making the community responsible. The recommendations are as following –

• It is strongly recommended to calculate / recalculate the 'Proposed Runoff Water of the Nadi Catchment Area' as per proposed landuse of the region. So that the adequate storm water management could be done.

- Accordingly, strong provisions for management of storm water must be made in the 'City Drainage Plan' to reduce the water logging / hazard vulnerability of the settlements.
- It is recommended to not disturb the natural passage of 'Nadi' or allied tributaries.
- The trees/ plants which are beneficial for local community as well as medicinal plants like 'Neem' must be replanted to the recreational spaces proposed in the S.A.S. Nagar Master Plan Area. Or it must be replanted probably near to the *Nadi* area.
- The authority must ensure the zero water logging in the Abadi area. It is recommended to make adequate storm water natural escape routes.

Thus, the project is beneficial to control the land values, attract real estate investors, continuous development of physical infrastructure and management of storm water and thus, reducing the 'Flood Hazard Vulnerability' after considering the above mentioned bulletins. The SIA study has been done to understand the depth and details of the effect caused by the land acquiring for the project and device mitigation plans for the same by fulfilling the rights of the individual for fair compensation, transparency, rehabilitation and re-establishment as per the citizens' Rights Act of 2013. So, it is concluded that the potential benefits of the project outweigh overall cost of the project and this land acquisition for the proposed project of development of planned residential sector as per approved Master Plan of SAS Nagar LPA should go through. It is certainly advised to allocate the fairest reward for impacted parties to reduce impact caused by acquiring and go forward with acquiring land.

5. Social Impact Management Plan

5.1 Introduction

The Social Impact Management Plan (SIMP) is necessary to address the negative impacts of land acquisition. Social Impact Management Plan (SIMP) consists of a set of institutional measures to be taken during the design, construction and operational phase of the project to eliminate adverse social impacts, to offset them, to acceptable levels. The main aim of the SIMP is to ensure that the various adverse impacts are mitigated and the positive impacts are enhanced.

5.2 Approach to Mitigation

This Social Impact Management Plan (SIMP) has been prepared to mitigate negative social impacts of land acquisition for Sector Dividing Road 92 and 92 Alfa for disposal of Storm Sewer for the overall development of sector as per approved Master Plan of SAS Nagar LPA, 2031 at 2-villages according to RFCTLARR Act, 2013. The Social Impact Management Plan (SIMP) consists a set of mitigation, monitoring and institutional measures to be taken during the design, construction and operational phases of the project to eliminate adverse social impacts or to reduce them to acceptable levels. The main aim of the SIMP is to ensure that the various adverse impacts are mitigated and the positive impacts are enhanced. The SIMP shall be implemented during the various stages of the project viz. pre-construction stage, construction stage and operational (post construction) stage. A description of the various management measures suggested during different stages of the project is provided in following section.

5.3 Measures to Avoid, Mitigate and Compensate Impact

- ✓ If there is any dispute among the stakeholders, then this dispute should first be resolved and made sure that the compensation is given to the legal owners.
- ✓ Care to be taken to reduce the pollution levels to the minimal during the construction phase of the project.
- ✓ The project will not displace any permanent residential structures.
- ✓ Rehabilitation & Resettlement Mitigation Measures: Since, no one has been residing on the notified land in both the gram panchayats and none were found to derive any direct or indirect dependency of livelihood from the said property therefore no rehabilitation & resettlement measures need to be taken.
- ✓ Environmental and Cultural Measures: The land proposed to be acquired possess number of trees in and around tubewell, agricultural land and field-way. As some of these trees are well developed, thus it is suggested that these trees should be replanted around the proposed sector roads or in the defined/ planned landscape areas. However, it is suggested that the proposed landscape at green areas of sector 92 & 92-Alpha should be in harmony with the surrounding environment and the green environment of SAS Nagar as well as Chandigarh.

Various measures to avoid, mitigate and compensate impacts are discussed on next page -

5.3.1 Social Measures

- ➢ If there is any dispute between the stakeholders, then this dispute should be resolved first and made sure that the compensation is given to the legal and rightful owner.
- During the operational and other stages of this project the preference should be given to the local labour of village.
- Gram Panchayats should be helped to make programs for the meaningful and productive participation of the elderly into the village life, so that they don't feel left out and unwanted during the whole process.
- The youth of village should be provided technical education and required training for enhancing their employability and competence.
- Efforts should be made for the upliftment of women and marginal sections by ensuring their participation in decision making and enhancing their traditional skills and by developing new skills.
- Efforts should be made for involving community in new development and thus, making 'Community Responsible'.

5.3.2 Economic Measures

- Compensation should be given in fixed time frame to Project Affected People.
- Project Affected People should be given technical and financial counselling for the productive usage and safe investment of compensation money.
- The compensation for the damage of the crops during the project should be properly paid. (if applicable)
- The acquiring body should make arrangements to remove, the raw material which will spill over into the surrounding fields during the construction phase.

5.3.3 Environmental Measures

- It is strongly recommended to calculate / recalculate the 'Proposed Runoff Water of the Nadi Catchment Area' as per proposed landuse of the region. So that the adequate storm water management could be done.
- Accordingly, strong provisions for management of storm water must be made in the 'City Drainage Plan' to reduce the water logging / hazard vulnerability of the settlements.
- > It is recommended to not disturb the natural passage of '*Nadi*' or allied tributaries.
- The trees/ plants which are beneficial for local community as well as medicinal plants like 'Neem' must be replanted to the recreational spaces proposed in the S.A.S. Nagar Master Plan Area. Or it must be replanted probably near to the *Nadi* area.
- > The authority must ensure the zero water logging in the Abadi area. It is recommended to make adequate storm water natural escape routes.
- > The policy related to the compensation of trees should be explained clearly and maximum compensation should be paid.

- > More and more trees should be planted, to reduce the pollution caused by the traffic.
- > Local trees should be preferred for plantation instead of alien decorative trees.
- > The replantation of the affected trees should be done in green area around the village.

5.4 Institutional Structures and Key Persons

Since the major mitigation measures from the acquisition can be handled by providing the appropriate compensation under RTFCTLARR Act, 2013 therefore the key person responsible to decide and provide the compensation would be the Collector. The act defines the Collector as collector of a revenue district, and includes a Deputy Commissioner and any other officer specially designated by the appropriate Government to perform the functions of a Collector.

The Department of Revenue and Land Records will also play a crucial role, and will be most competent for determining land ownerships, land measurements and assisting the Collector in determining the market rates etc.

Since there is no R&R involved, therefore no such authority shall be required. This Social Impact Management Plan (SIMP) is prepared to mitigate negative social impacts of the acquisition of land. The SIMP has followed the 'Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013' (RFCTLARR Act, 2013). It appears from the analyses and overview of the act that provisions of compensation for Land Acquisition under RFCTLARR Act, 2013 will be sufficient to manage social and economic issues. Moreover, to provide clarity in the provisions of the Act following broad principles will be adopted under the project:

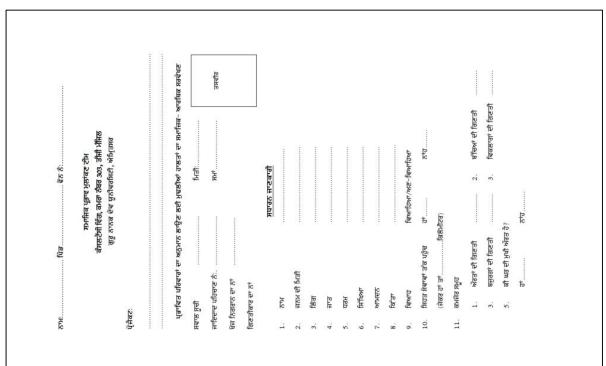
- ✓ Continued consultations with representatives of PUDA and GMADA will be the main feature in implementation of the project.
- ✓ Administrator and Commissioner for Resettlement and Rehabilitation will be appointed as per provisions of LARR, 2013 by the appropriate Government.
- ✓ The Administrator of the project will ensure preparation of R&R plan and disclosure as per provision of LARR, 2013.
- ✓ The SIA report shall be disclosed as per Section 7 (5) of the LARR, 2013.
- ✓ R&R benefits will be as per provisions of 2^{nd} schedule of LARR, 2013.

References

- Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation & Resettlement Act, 2013.
- Master Plan of S.A.S. Nagar LPA.
- > Office of Land Acquisition Collector, Greater Mohali Area Development Authority (GMADA).
- Singh, Ravi Inder, and Karamjit Singh Chahal. 2018. "S.A.S. Nagar Master Plan: A Critical Analysis." 3(8):3–8.
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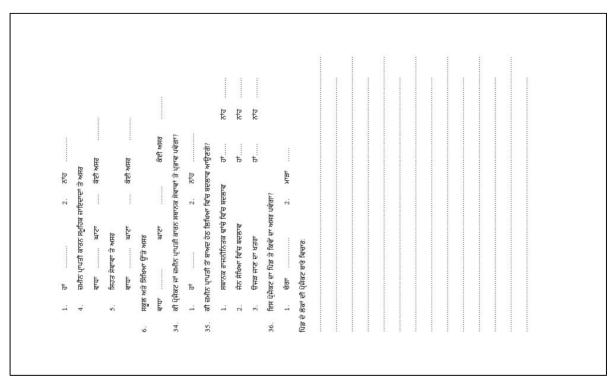
Report on Social Impact Assessment for Land Acquisition

(Master Plan Sector Dividing Road 92 & 92 Alpha for Disposal of Storm Sewer)

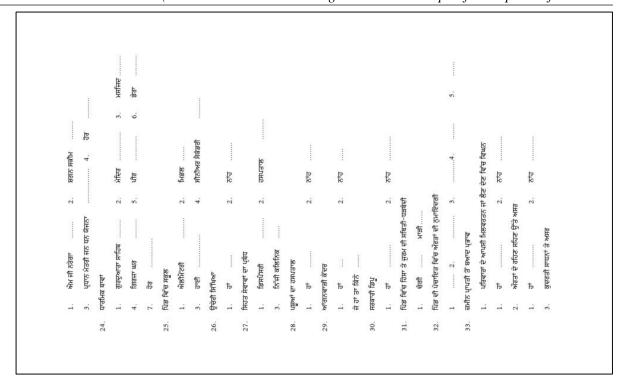


Annexure-1: Performa for Stakeholder Consultation

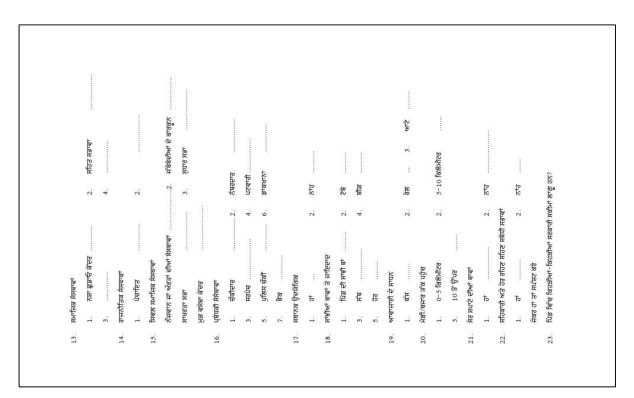
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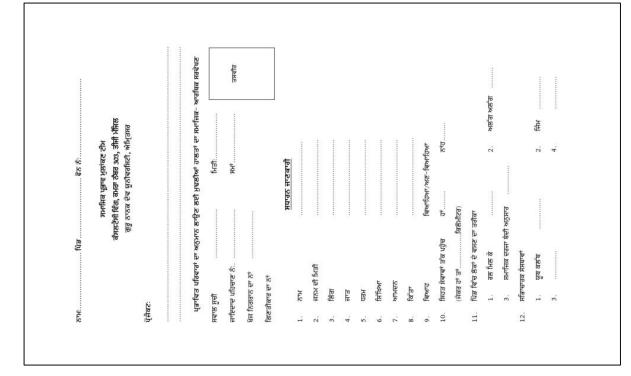


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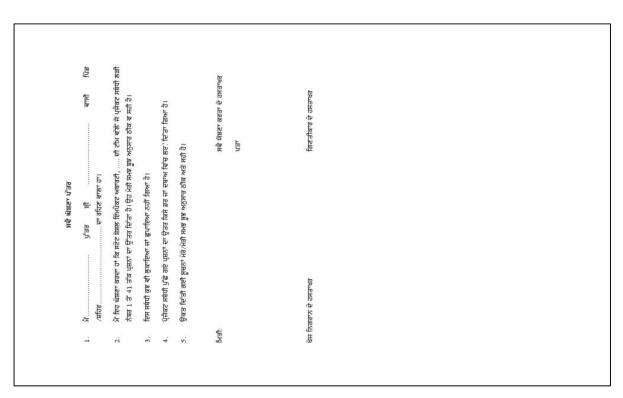


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Report on Social Impact Assessment for Land Acquisition (Master Plan Sector Dividing Road 92 & 92 Alpha for Disposal of Storm Sewer)

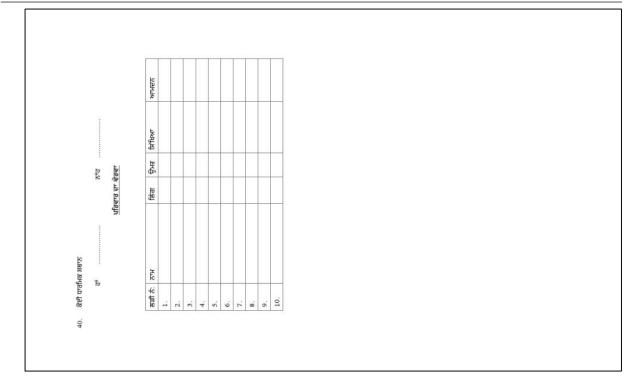


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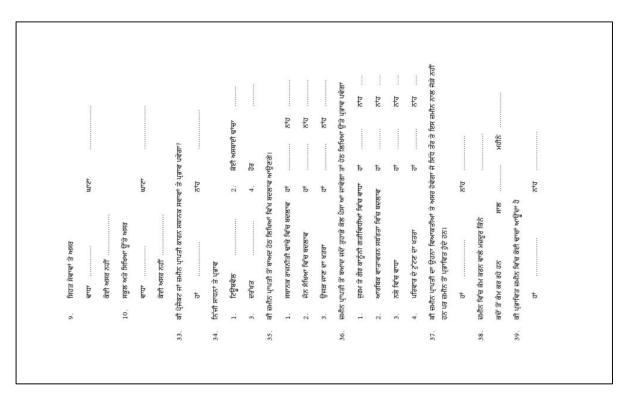


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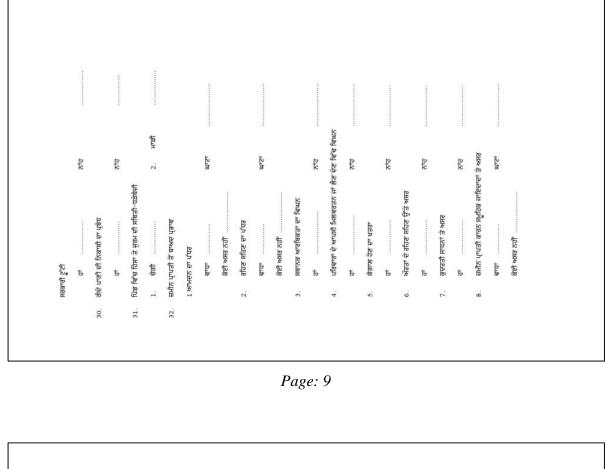
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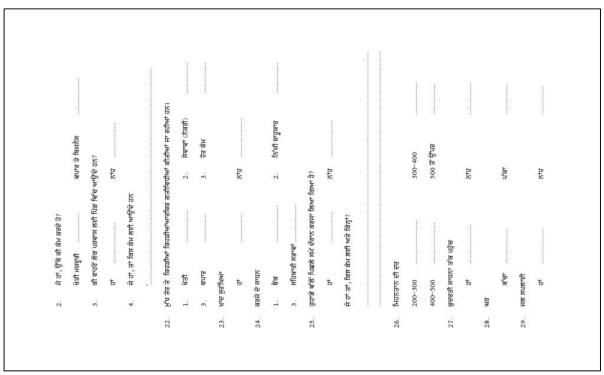


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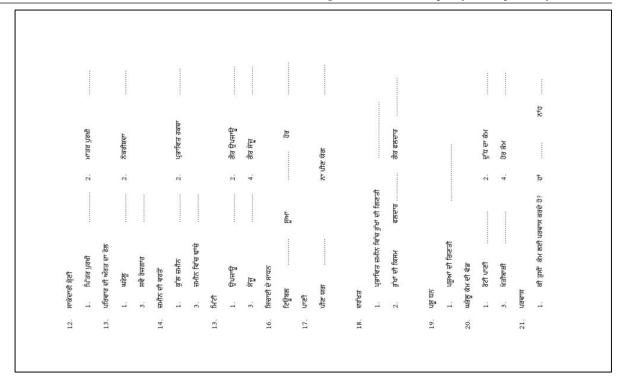


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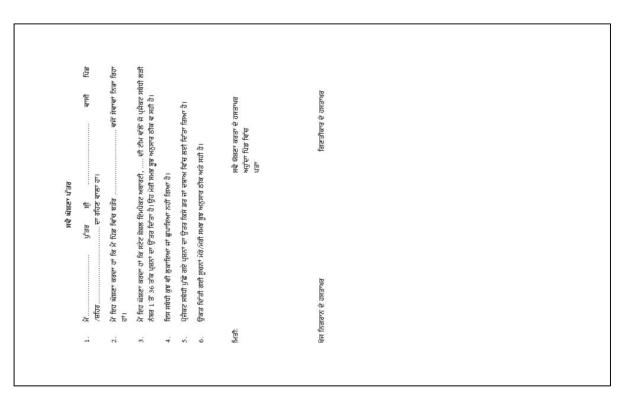


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Report on Social Impact Assessment for Land Acquisition (Master Plan Sector Dividing Road 92 & 92 Alpha for Disposal of Storm Sewer)

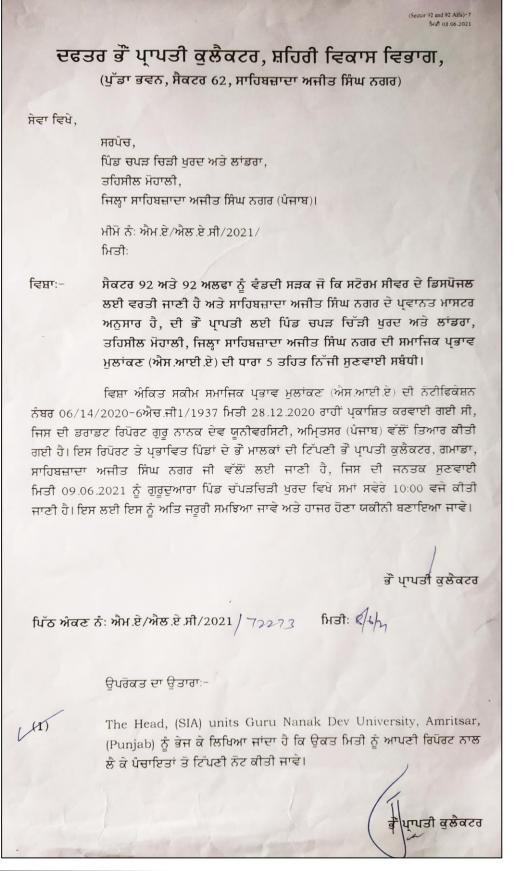
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(Master Plan Sector Dividing Road 92 & 92 Alpha for Disposal of Storm Sewer)

Annexure-2: Notice of Public Hearing



Annexure-3: Feedback from the Public Hearing held on 09/06/2021

As per the provisions of the LARR Act, 2013, "Whenever a Social Impact Assessment is required to be prepared under section-4, the appropriate Government shall ensure that a public hearing is held at the affected area, after giving adequate publicity about the date, time and venue for the public hearing, to ascertain the views of the affected families to be recorded and included in the Social Impact Assessment Report." Keeping in view this provision under section 5 of the LARR Act, 2013, public hearing was held on 9th June, 2021 at Gurudwara (a common religious place) at village Chappar Chiri Khurd, S.A.S Nagar. This exercise was done to ascertain and record the views of the families to be affected by the proposed land acquisition of 23.7708 acres by GMADA in its two villages. (*Refer Annexure-2*)

Public Hearing was attended by the affected families, representatives of GMADA (acquiring body), Officials of Revenue, and Social Impact Assessment team that conducted the SIA study. The SIA team facilitated the whole process and explained in detail the purpose and importance of the public hearing to all the participants especially the members of Gram Panchayats. *(list of participants is attached in annexure-5)*

Various aspects regarding the proposed acquisition were discussed in detail during the public hearing and the Panchayat were requested to get their views recorded, so that they could be included in the final Social Impact Assessment Report. The entire process was video-graphed as per the provisions of the LARR Act, 2013. The video recording of the proceedings of the public hearing has been included with the report. A detail of the representation of Panchayat as told by them during the public hearing are as follows:

- Nadi (Stream) and Road Level: During the public hearing, the people of Chappar Chiri Khurd told that the level of 200 feet wide road will be higher than existing Nadi Area.
- Further, as per the representatives of Chappar Chiri Khurd, there will be severe water logging problem during the monsoon season. Thus, need to study the project's feasibility.
- Further, the power meters of households are situated at a lower height of 2-3 feet from the ground. If water logging happens, tragedy could take place through electric shock.
- Some of the heritage trees are 300-400 years old. Though these trees don't fall in the notified area of 200 feed wide road. But, they are as old as the significance of Sikh History (depicted in the war memorial). Thus, there should be preservation, instead of cut it done just like timbers.
- ✤ Affected family insisted for replacement of existing tubewells on priority.
- Tree owners have demanded for appropriate compensation as well as trees relocation to combat ongoing climate change.
- There are more than 20 stray animals (including cows) and government must take necessary action to remove all the stray animals.



Annexure-4: Photographs of Public Hearing held on 09/06/2021

Faculty of Physical Planning & Architecture, Guru Nanak Dev University, Amritsar Page | 40

Annexure-5: List of Participants in Public Hearing held on 09/06/2021

<u>ਹਾਜਰੀ ਰਿਪੋਰਟ</u>

ਵਿਸ਼ਾ:- ਸੈਕਟਰ 92 ਅਤੇ 92 ਅਲਫਾ ਨੂੰ ਵੰਡਦੀ ਸੜਕ ਜੋ ਕਿ ਸਟੋਰਮ ਸੀਵਰ ਦੇ ਡਿਸਪੋਜਲ ਲਈ ਵਰਤੀ ਜਾਣੀ ਹੈ ਅਤੇ ਸਾਹਿਬਜ਼ਾਦਾ ਅਜੀਤ ਸਿੰਘ ਨਗਰ ਦੇ ਪ੍ਰਵਾਨਤ ਮਾਸਟਰ ਅਨੁਸਾਰ ਹੈ, ਦੀ ਭੌਂ ਪ੍ਰਾਪਤੀ ਲਈ ਪਿੰਡ ਚਪੜ ਚਿੱੜੀ ਖੁਰਦ ਅਤੇ ਲਾਂਡਰਾ, ਤਹਿਸੀਲ ਮੋਹਾਲੀ, ਜਿਲ੍ਹਾ ਸਾਹਿਬਜ਼ਾਦਾ ਅਜੀਤ ਸਿੰਘ ਨਗਰ ਦੀ ਸਮਾਜਿਕ ਪ੍ਰਭਾਵ ਮੁਲਾਂਕਣ (ਐਸ.ਆਈ.ਏ) ਦੀ ਧਾਰਾ 5 ਤਹਿਤ ਅੱਜ ਮਿਤੀ 09.06.2021 ਨੂੰ ਜਨਤਕ ਸੁਣਵਾਈ ਦੀ ਹਾਜਗੀ ਰਿਪੋਰਟ।

ਲੜੀ	ਭੌਂ ਮਾਲਕ ਦਾ ਨਾਮ	ਪਿੰਡ ਦਾ ਨਾਮ	ਮੋਬਾਇਲ ਨੰਬਰ	ਹਸਤਾਖਰ
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Annexure-6: Expert Group Review held on 22/09/2021

As per the provisions of the LARR Act, 2013, "Whenever a Social Impact Assessment is required to be prepared under section-7 i.e., 'Appraisal of Social Impact Assessment report by an Expert Group', the appropriate Government shall ensure that the Social Impact Assessment report is evaluated by an independent multi-disciplinary Expert Group. Keeping in view this provision under section-7 of the LARR Act, 2013, an expert group review meeting was held under the chairmanship of K.S. Sidhu (Retd. IAS) on 22th September, 2021 at Committee Room, 3rd Floor, PUDA Bhawan.

Beside the expert group, the meeting was attended by representatives of GMADA (acquiring body), representatives from the Gram Panchayats and Social Impact Assessment team that conducted the SIA study. The SIA team facilitated the whole process and explained in detail the study which was conducted to fulfil the purpose. *(list of participants is attached in annexure-8)*

Social Impact Assessment (SIA) study was conducted by the Faculty of Physical Planning & Architecture, Guru Nanak Dev University, Amritsar, which submitted the Draft SIA Study Report, which is further evaluated by the Expert Group comprising of Two non-official Social Scientists (Prof. Rajesh Gill and Prof. Ramanjit Kaur Johal) and representative of Panchayats of Chappar Chiri Khurd and Landran village. (*Photos of Expert Group Review Meeting is attached in annexure-7*)

The suggestions / findings of the expert group were given during the meeting are as following -

- Due to presence of inadequate information about the technical feasibility of the project, the expert committee suggested GMADA to prepare a detailed 'City Drainage Plan of the Mohali Region'. It is important to ensure that the management of storm water would not impact the villages like Chappar Chiri Khurd. Thus, drainage specific details must be ensured while executing the project.
- Expert committee instructed GMADA to ensure the maximum preservation of 300-400 years old trees in the area of Chappar Chiri Khurd.

The expert group was convinced with the opinion that the proposed Urban Development has been delineated in the sector-2(i)(e) of "The Right to Fair Compensation & Transparency in Land Acquisition, Rehabilitation & Resettlement Act, 2013". Hence, it serves the public purpose. While doing appraisals of Social Impact Assessment Report, the committee has found that the proposed road is going to be implemented according to the S.A.S. Nagar Master Plan. Hence, under this planned development there is no possible alternatives and the land proposed for acquisition is the bare minimum.

The meeting was ended with a vote of thanks to the chair.



Annexure-7: Photographs of Expert Group Review held on 22/09/2021

Annexure-8: List of Participants in Meeting of Expert Group

Attendance sheet for meeting of expert group of Social Impact Assessment Appraisal Committee for scheme namely sector dividing road92 and 92 Alfa at Puda Bhawan on Dated 22-092021

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