



**GOVERNMENT OF PUNJAB
ENVIRONMENTAL PROTECTION AGENCY**



Environmental Assessment Checklists and Guidelines

Small Housing Schemes

Contents

No.	Contents	Page No.
1.	Introduction	
1.1	Background	1
1.2	Purpose of the Guidelines	2
1.3	Scope of the Guidelines	2
1.4	How to Use these Guidelines	2
1.5	Applicable Environmental Legislation	3
2.	Project Profile	3
2.1	Project Description	3
3.	Environmental Impacts	3
3.1	Site Selection (Siting) Phase	
3.2	Planning and Design Phase	
3.3	Land Acquisition and Site Preparation	
3.4	Earthworks and Excavation	
3.5	Construction Phase	
	i. Air Quality	
	ii. Noise and Vibration	
	iii. Water Resources	
	iv. Soil	
	v. Waste Management	
	vi. Traffic	
	vii. Community Health and Safety	
3.6	Infrastructure Development	
3.7	Landscaping Phase	
	i. Positive Impacts	
	ii. Potential Negative Impacts	
3.8	Operation Phase	
	i. Water Resources	
	ii. Air Quality	
	iii. Noise	
	iv. Solid Waste	
	v. Stormwater Management	
	vi. Traffic	
	vii. Public Health	
3.9	Socio-economic Environment	
	i. Positive Impacts	
	ii. Potential Negative Impacts	
3.10	Maintenance Phase	
3.11	Emergency Situations	
4.	Environmental Mitigation Measures	8
4.1	Site Selection (Siting) Phase	
4.2	Planning and Design Phase	
4.3	Land Acquisition and Site Preparation	
4.4	Earthworks and Excavation	
4.5	Construction Phase	
	i. Air Quality	

- ii Noise and Vibration
- iii. Water Resources
- iv. Soil Protection
- v. Waste Management
- vi. Traffic Management
- vii Occupational and Community Health and Safety
- 4.6 Infrastructure Development
- 4.7 Landscaping Phase
 - i. Green Space Development
 - ii. Water Conservation
 - iii. Chemical Management
 - iv. Landscape Maintenance
- 4.8 Operation Phase
 - i. Water Resources
 - ii. Air Quality
 - iii. Noise Management
 - iv. Solid Waste Management
 - v. Stormwater Management
 - vi. Traffic Management
 - viii Public Health
 - ix. Community Development
- 4.9 Maintenance Phase
- 4.10 Emergency Situations

1. Introduction

Housing is an obvious and pressing human need. Until quite recently, the formidable task of providing housing has overshadowed environmental considerations.

Depending upon the needs of the local community and the local sociopolitical framework, housing demand is being fulfilled by both public or private sectors, or a combination of both. In Punjab, housing projects come in several forms:

- i. Unplanned informal projects where people convert their private land, mostly agricultural, to residential land. Although the houses in such housing schemes are usually well built, there is no overall town planning. Such schemes are characterized by lack of community facilities (such as open spaces, community centers, proper shopping areas, and transport facilities), narrow and rarely straight streets, poor sewage system, and being prone to flooding during rainfall due to poor drainage.
- ii. Squatter settlements often on encroached lands. Houses in these schemes are often poorly made. The general town planning conditions are often even worse than the first form discussed above. In some cases, government ultimately legitimizes the squatter settlements by providing services and legalizing ownership.
- iii. Government-sponsored or privately-owned housing project in which the builder not only does the town planning but also constructs the houses and sells the finished houses to the buyers.
- iv. Government-sponsored or privately-owned housing project in which the builder does the town planning, develops plots, constructs the amenities and sells the plots to the buyers. The owners of the plots then make their own arrangement to construct houses on the plots.

However, housing sector has found to cause numerous major environmental impacts on land and resources during various phases of development. These phases are categorized in following phases.

- *Phase 1:* Siting and design of housing schemes
- *Phase 2:* Site development and construction of amenities. This includes leveling, construction of roads, laying of sewer system and utility lines, and construction of mosques, community centers, parks and other common facilities.
- *Phase 3:* Construction of individual houses. For schemes where this is undertaken by the developer, this phase often coincides with the previous one and is completed in relatively short period, usually 2 to 3 years. If the houses are constructed by the owners of the plots, this activity starts after the completion of previous phase and the construction of houses in the entire scheme may take many years, sometime decades.
- *Phase 4:* Operation of housing schemes

1.1 Scope of the Guidelines

These guidelines are applicable to the developments of all small formal housing schemes, government or privately funded, having 20 or more units but less than 100 units.

1.2 How to Use These Guidelines

The project proponent (the local government, municipal government, city government, the cantonment board, private association or organization) is obliged to use these guidelines. The project proponent has to fill in an environmental impact assessment form. The following steps are to be taken in this regard:

Step 1: Provide information on project [use **Section I**]

Step 2: Determine Applicability (*Are you sure that IEE or EIA is not required?*) [use **Section II**]

Step 3: Describe the physical, biological and social environment [use **Section III**]

Step 4: Assess potential impacts and applicable mitigation measures [use **Section IV**]

Step 5: Provide undertaking to the EPA on mitigation measures and compliance [use **Section V**]

Completed form is to be submitted to the Punjab Environmental Protection Agency for evaluation. EPA Punjab may request for additional information or decide to undertake visit to the proposed project site in order to assess the environmental impact of the proposed project.

1.3 Glossary

Act: means the Punjab Environmental Protection Act, 1997

Aesthetic Value/Aesthetic Quality: beauty or landscape (of an area)

Contamination: introduction of impurities in the environment

Environment: means (a) air, water and land; (b) all layers of the atmosphere; (c) all organic and inorganic matter and living organisms; (d) the ecosystem and ecological relationships; (e) buildings, structures, roads, facilities and works; (f) all social and economic conditions affecting community life; and (g) the inter-relationships between any of the factors in sub-clause (a) to (f).

Endangered Species: a species in danger of becoming extinct

Environmental Assessment: a technique and a process by which information about the environmental effects of a project is collected, both by the developer and from other sources, and taken into account by the planning authority in forming their judgments on whether the development should go ahead.

Environmental Management: to carry out the developmental activities in sustainable manner

Habitat: the general place or physical environment in which a population lives

Impact on Environment: means any effect on land, water, air or any other component of the environment, as well as on wildlife harvesting, and includes any effect on the social and cultural environment or on heritage resources.

Landslides: a slide of a large mass of dirt and rock down a mountain or cliff

Mitigation Measure: means a measure for the control, reduction or elimination of an adverse impact of a development on the environment, including a restorative measure.

Project Proponent: a person, company, NGO or any agency that sponsors and promotes a project.

Public Sector: that part of an economy, industry, etc., controlled by the State

Private Sector: the part of an economy, industry, etc., which is free from direct State control.

Regulations: means the Punjab Environmental Protection Agency Review of Initial Environmental Examination and Environment Impact Assessment Regulations, 2022.

Soil Erosion: physical removal of soil either by wind or by running water.

Siltation: accumulation of silt in a water body.

Subsidence: the sudden collapse of land into a hollow beneath it.

Wetland: A lowland area, such as a marsh or swamp that is saturated with moisture, especially when regarded as the natural habitat of wildlife.

2. Project Profile

2.1 Project Description

The proponent, after consulting Annexures should provide a concise description of the proposed project, including:

- Name of the project
- Project location (district, tehsil, mouza, and coordinates)
- Nature of the project (new or expansion)
- Government's designate nature of proposed area
- Total project area.
- Estimated water demand during construction and operation phases
- Covered and open areas
- Land ownership status
- Estimated project cost
- Detail of different categories of houses and others structures
- Number of employees during construction phase.

3. Environmental Impacts

3.1 Site Selection (Siting) Phase

- Loss of agricultural land due to conversion to residential use.
- Loss of natural vegetation and green cover.
- Destruction or fragmentation of wildlife habitats.
- Disturbance to terrestrial flora and fauna.
- Encroachment upon wetlands, floodplains, forests, or other environmentally sensitive areas.

- Alteration of natural drainage patterns.
- Increased risk of flooding if the site is located in low-lying areas.
- Reduction in groundwater recharge due to future urbanization.
- Land use conflicts with surrounding developments.
- Displacement of local communities or economic activities (where applicable).
- Potential impacts on archaeological, historical, or cultural heritage resources.
- Increased demand for public infrastructure and municipal services.
- Visual changes to the surrounding landscape.

3.2 Planning and Design Phase

- Inadequate drainage design resulting in urban flooding.
- Insufficient allocation of green spaces and recreational areas.
- Increased impervious surfaces leading to higher stormwater runoff.
- Increased future demand for potable water.
- Increased generation of domestic wastewater.
- Increased municipal solid waste generation.
- Higher future electricity and natural gas consumption.
- Urban heat island effect due to excessive paved surfaces.
- Traffic congestion resulting from poor road planning.
- Reduced opportunities for groundwater recharge.

3.3 Land Acquisition and Site Preparation

- Removal of trees, shrubs, and vegetation.
- Loss of fertile topsoil.
- Soil erosion caused by land clearing.
- Dust generation during clearing operations.
- Increased suspended particulate matter in ambient air.
- Noise generated by heavy machinery.
- Disturbance to nearby residents.
- Habitat disturbance for birds and small animals.
- Generation of vegetation waste and construction debris.
- Increased sediment runoff into nearby drains, canals, or streams.

3.4 Earthworks and Excavation

- Alteration of natural landforms and topography.
- Soil compaction and degradation.
- Increased erosion of exposed soil.

- Dust emissions from excavation activities.
- Sedimentation of nearby water bodies.
- Fuel, oil, and lubricant leakage contaminating soil.
- Potential contamination of groundwater.
- Temporary traffic disruption caused by construction equipment.
- Occupational health and safety hazards.

3.5 Construction Phase

i. Air Quality

- Dust emissions from excavation, material handling, and vehicle movement.
- Exhaust emissions from construction machinery and transport vehicles.
- Greenhouse gas emissions from fuel combustion.

ii. Noise and Vibration

- Noise generated by construction equipment.
- Vibration affecting nearby buildings and residents.
- Disturbance to schools, hospitals, and other sensitive receptors.

iii. Water Resources

- Increased water consumption for construction activities.
- Wastewater generation from construction camps.
- Contamination of surface water by construction runoff.
- Pollution from accidental fuel or chemical spills.

iv. Soil

- Soil contamination from fuel, oils, paints, and chemicals.
- Soil compaction due to heavy equipment.
- Improper disposal of excavated material.

v. Waste Management

- Generation of construction and demolition waste.
- Generation of hazardous waste such as used oil, paint containers, and chemical residues.
- Improper waste disposal causing land pollution.

vi. Traffic

- Increased traffic volume due to movement of construction vehicles.
- Temporary traffic congestion.

- Damage to existing roads.
- Increased risk of traffic accidents.

vii Community Health and Safety

- Dust affecting nearby residents.
- Construction noise causing nuisance.
- Restricted access to neighboring properties.
- Increased risk of accidents involving workers and the public.
- Visual nuisance due to construction activities.

3.6 Infrastructure Development

- Disturbance during installation of water supply, sewerage, electricity, gas, and drainage networks.
- Temporary road closures and traffic disruption.
- Damage to existing underground utilities.
- Soil erosion during trenching.
- Increased sediment transport into drainage systems.
- Reduced groundwater recharge due to road paving.
- Increased stormwater runoff.
- Risk of localized flooding if drainage systems are inadequately designed.

3.7 Landscaping Phase

i. Positive Impacts

- Improvement in landscape aesthetics.
- Increased green cover.
- Improvement in local biodiversity.
- Reduction in dust levels.
- Improvement in the local microclimate.
- Carbon sequestration through tree plantation.

ii Potential Negative Impacts

- Increased irrigation water demand.
- Use of fertilizers and pesticides affecting soil and water quality.
- Generation of green waste during maintenance.

3.8 Operation Phase

i. Water Resources

- Increased domestic water demand.

- Increased wastewater generation.
- Risk of groundwater contamination due to sewer leakage.
- Potential over-extraction of groundwater where municipal supply is inadequate.
- ii. Air Quality**
 - Vehicle exhaust emissions.
 - Emissions from standby diesel generators.
 - Greenhouse gas emissions associated with residential energy use.
- iii. Noise**
 - Increased traffic noise.
 - Noise from commercial activities and community facilities.
 - Generator noise during power outages.
- iv. Solid Waste**
 - Generation of municipal solid waste.
 - Improper disposal of household waste.
 - Generation of household hazardous waste such as batteries, paints, and electronic waste.
- v. Stormwater Management**
 - Increased stormwater runoff due to paved surfaces.
 - Localized flooding caused by blocked drainage systems.
 - Transport of pollutants through stormwater runoff.
- vi. Traffic**
 - Increased traffic volume.
 - Parking congestion.
 - Increased risk of road accidents.
 - Higher fuel consumption and associated emissions.
- vii. Public Health**
 - Mosquito breeding in stagnant water.
 - Rodent infestation due to poor waste management.
 - Odor from improperly managed waste.
 - Sanitation-related health concerns.
- 3.9 Socio-economic Environment**
 - i. Positive Impacts**
 - Improved housing availability.
 - Employment opportunities in maintenance and commercial activities.
 - Improved road connectivity.

- Increased property values.
- Better access to utilities and public services.
- Economic development of surrounding areas.
- Improved quality of life.

ii. Potential Negative Impacts

- Increased pressure on schools, healthcare facilities, and municipal services.
- Increased demand for electricity, gas, and water supply.
- Higher cost of living in surrounding areas.
- Social conflicts due to rapid urbanization.

3.10 Maintenance Phase

- Dust generation during repair works.
- Noise from maintenance equipment.
- Traffic disruption during maintenance activities.
- Waste generation from road and utility repairs.
- Fuel and lubricant leakage from maintenance machinery.
- Temporary interruption of utility services.

3.11 Emergency Situations

- Fire hazards causing air pollution and property damage.
- Flooding resulting in contamination of residential areas.
- Earthquake damage to buildings and infrastructure.
- Sewer overflows causing contamination of land and water.
- Accidental release of fuels or hazardous substances.
- Risks to public health and safety during natural or human-induced disasters.

4. Environmental Mitigation Measures

4.1 Site Selection (Siting) Phase

The developer shall:

- Select land that is compatible with the approved land use or master plan.
- Avoid acquisition of fertile agricultural land wherever feasible.
- Avoid environmentally sensitive areas such as wetlands, forests, floodplains, wildlife habitats, and protected areas.
- Avoid locations containing archaeological, historical, or cultural heritage resources.
- Conduct environmental and social screening before finalizing the project site.
- Preserve existing mature trees and natural vegetation to the maximum extent practicable.
- Maintain natural drainage channels and avoid blockage of watercourses.

- Provide adequate buffer zones around environmentally sensitive receptors.
- Allocate sufficient land for parks, green belts, and open spaces.
- Consult local communities and relevant government agencies during project planning.
- Carry out detailed geotechnical and hydrological investigations before commencement of development.

4.2 Planning and Design Phase

The developer shall:

- Design an efficient stormwater drainage system capable of handling peak rainfall.
- Incorporate rainwater harvesting measures wherever feasible.
- Reserve adequate green areas, parks, and roadside plantations.
- Minimize impervious surfaces by incorporating permeable paving materials where appropriate.
- Design an efficient sewerage collection and wastewater disposal system.
- Ensure sustainable water supply without overexploitation of groundwater resources.
- Provide designated locations for municipal solid waste collection.
- Incorporate energy-efficient street lighting and public facilities.
- Prepare a traffic circulation plan with adequate road widths and parking areas.
- Ensure universal accessibility and emergency vehicle access throughout the housing scheme.
- Promote building designs that maximize natural lighting and ventilation.

4.3 Land Acquisition and Site Preparation

The developer shall:

- Restrict vegetation clearing to areas required for construction activities.
- Clearly demarcate construction boundaries before site clearing.
- Protect trees identified for retention.
- Strip and stockpile fertile topsoil for reuse during landscaping.
- Sprinkle water on exposed surfaces to suppress dust emissions.
- Restrict noisy activities to daytime working hours.
- Install temporary fencing around construction areas.
- Implement erosion and sediment control measures such as silt fences and temporary drains.
- Properly dispose of cleared vegetation and construction debris at approved locations.
- Restore disturbed areas as early as practicable.

4.4 Earthworks and Excavation

The developer shall:

- Schedule excavation works during dry weather where feasible.
- Cover trucks transporting excavated materials.
- Sprinkle water regularly on haul roads and excavation areas to control dust.
- Stabilize exposed slopes to prevent erosion.

- Install temporary drainage channels around excavation sites.
- Store fuels and lubricants in designated impermeable storage areas.
- Maintain spill response materials at construction sites.
- Dispose of surplus excavated material only at approved disposal sites.
- Maintain construction equipment to prevent fuel and lubricant leakage.
- Provide appropriate Personal Protective Equipment (PPE) to workers.
- Install warning signs, barricades, and adequate lighting around excavation sites.

4.5 Construction Phase

i. Air Quality

The developer shall:

- Sprinkle water regularly on construction areas and access roads.
- Cover stockpiles of sand, soil, and other fine construction materials.
- Cover trucks transporting loose materials.
- Maintain construction machinery to minimize exhaust emissions.
- Avoid unnecessary idling of construction vehicles.
- Enforce speed limits for vehicles operating within the construction site.

ii Noise and Vibration

The developer shall:

- Use properly maintained construction equipment fitted with silencers.
- Restrict high-noise activities to daytime hours.
- Install temporary noise barriers where construction activities are close to sensitive receptors.
- Notify nearby residents before undertaking particularly noisy operations.
- Maintain equipment regularly to minimize vibration.

iii. Water Resources

The developer shall:

- Minimize water consumption through efficient construction practices.
- Prevent discharge of untreated wastewater into natural water bodies or drainage channels.
- Construct temporary sedimentation pits to control sediment-laden runoff.
- Store fuels and chemicals away from drainage systems and watercourses.
- Inspect fuel storage areas regularly for leaks.
- Develop and implement spill prevention and emergency response procedures.

iv. Soil Protection

The developer shall:

- Store fuels, oils, and chemicals on impermeable surfaces with secondary containment.
- Clean up fuel and oil spills immediately.

- Prevent mixing of construction waste with excavated soil.
- Minimize unnecessary movement of heavy construction equipment.

v. Waste Management

The developer shall:

- Segregate construction waste at the source.
- Reuse and recycle construction materials wherever practicable.
- Dispose of waste only at approved disposal facilities.
- Store hazardous waste separately in properly labeled containers.
- Maintain records of waste generation and disposal.

vi. Traffic Management

The developer shall:

- Prepare and implement a Construction Traffic Management Plan.
- Schedule movement of heavy vehicles during off-peak hours where practicable.
- Install warning signs and traffic diversion boards.
- Deploy trained flagmen at busy access points.
- Repair roads damaged by construction traffic.

vii. Occupational and Community Health and Safety

The developer shall:

- Provide appropriate PPE to all construction workers.
- Conduct regular occupational health and safety training.
- Install fencing and warning signage around hazardous work areas.
- Maintain first-aid facilities and emergency response equipment.
- Restrict unauthorized public access to construction areas.
- Establish a grievance redress mechanism for nearby communities.

4.6 Infrastructure Development

The developer shall:

- Coordinate utility installation with relevant service providers.
- Restore roads and pavements immediately after utility installation.
- Control dust during trenching through regular water spraying.
- Install erosion and sediment control measures.
- Minimize disruption to traffic through phased construction.
- Clearly mark excavation areas.
- Protect existing underground utilities during excavation.
- Inspect drainage systems before commissioning.
- Ensure drainage channels remain free of construction debris.

4.7 Landscaping Phase

i. Green Space Development

The developer shall:

- Plant indigenous and drought-tolerant tree species.
- Maximize green cover within parks and road medians.
- Preserve mature trees wherever feasible.
- Develop buffer plantations along the project boundary.

ii. Water Conservation

The developer shall:

- Use efficient irrigation systems such as drip irrigation along road side plantation and parks, where practicable.
- Irrigate landscaped areas during cooler hours.
- Utilize abolition water / treated wastewater for irrigation where available.

iii. Chemical Management

The developer shall:

- Minimize the use of fertilizers and pesticides.
- Adopt environmentally friendly pest management practices.
- Store landscaping chemicals safely.
- Dispose of empty chemical containers through approved methods.

iv. Landscape Maintenance

The developer shall:

- Regularly maintain landscaped areas.
- Replace dead or damaged plants promptly.
- Compost green waste wherever practicable.

4.8 Operation Phase

i. Water Resources

The developer or housing management authority shall:

- Promote water conservation among residents.
- Regularly inspect water supply and sewerage systems for leaks.
- Maintain sewage collection and treatment facilities.
- Monitor groundwater abstraction where applicable.

ii. Air Quality

The developer or housing management authority shall:

- Encourage the use of public transportation, walking, and cycling.

- Maintain roadside plantation programs.
- Properly maintain standby generators.
- Promote energy-efficient buildings and appliances.

iii. Noise Management

The developer or housing management authority shall:

- Enforce PEQS for community noise.
- Maintain generators and mechanical equipment.
- Develop green belts to reduce traffic noise.

iv. Solid Waste Management

The developer or housing management authority shall:

- Implement a door-to-door waste collection system.
- Promote segregation of biodegradable and recyclable waste.
- Provide adequate waste collection bins.
- Dispose of municipal waste through authorized service providers.
- Conduct environmental awareness programs for residents.

v. Stormwater Management

The developer or housing management authority shall:

- Clean stormwater drains regularly.
- Prevent dumping of waste into drainage channels.
- Maintain retention ponds and groundwater recharge structures.
- Inspect drainage systems before and during the monsoon season.

vi. Traffic Management

The developer or housing management authority shall:

- Maintain road signs and traffic markings.
- Provide adequate parking facilities.
- Install speed control measures within the housing scheme.
- Maintain pedestrian walkways and crossings.

viii. Public Health

The developer or housing management authority shall:

- Implement mosquito and vector control measures.
- Maintain cleanliness of public areas.
- Ensure adequate street lighting.
- Maintain reliable sanitation services.

ix. Community Development

The developer or housing management authority shall:

- Maintain parks and recreational facilities.
- Encourage community participation in environmental management.
- Operate an effective complaint handling system.
- Promote environmental awareness among residents.

4.9 Maintenance Phase

The developer or housing management authority shall:

- Prepare preventive maintenance schedules for infrastructure.
- Repair damaged roads, drainage systems, and utilities promptly.
- Control dust during maintenance activities.
- Segregate and properly dispose of maintenance waste.
- Minimize traffic disruption through advance planning.
- Conduct regular inspections of utilities.
- Maintain records of maintenance activities.
- Ensure maintenance personnel use appropriate PPE.

4.10 Emergency Situations

The developer or housing management authority shall:

- Prepare and implement an Emergency Response Plan.
- Install fire detection and firefighting systems.
- Provide clearly marked emergency exits and assembly points.
- Keep emergency access routes unobstructed at all times.
- Conduct periodic emergency drills.
- Display emergency contact numbers prominently.
- Regularly inspect electrical systems to minimize fire risks.
- Develop flood preparedness and stormwater emergency procedures.
- Maintain emergency power supply for critical infrastructure.
- Coordinate emergency response with local authorities and rescue services.
- Maintain fire extinguishers, first-aid kits, emergency pumps, and communication equipment in operational condition.

Environmental Assessment Checklist

Section I: Project Description

File No _____ (To be filled by EPA)

Date _____

General Information

1. Project Name or Title _____
2. Project Proponent (Department, organization, or owner) _____
3. Address _____
4. Telephone _____
5. Fax _____
6. E-mail _____
7. Representative of the Proponent _____
8. Designation _____
9. Name of the person who conducted this assessment _____
10. Designation _____
11. Qualification _____

Project Information

12. Project Location _____
13. Cost of the Project _____
14. Period of construction (start and end dates) _____
15. Scheme type
☐ Government Sponsored ☐ Private
16. The developer will provide:
☐ Constructed houses ☐ Housing Plots
17. Number of housing units in the proposed scheme _____
18. Brief Project Description _____

Please attach a map of the proposed project area

19. Area of the housing scheme

- Total _____ m²
Proposed covered _____ m²
Open space _____ m²
20. Indicate what facilities will be provided in the scheme and the land use: Housing units _____ m²
Mosque _____ m²
Paved roads _____ m²
Unpaved roads _____ m²
Parking lots _____ m²
Community centers _____ m²
Shopping areas _____ m²
Parks _____ m²
Other _____ m²
21. The total construction material that will be utilized? _____

22. Land acquisition
The total area: _____
Present ownership of land _____
What is the present use of the land? _____
How the land will be acquired (Through Land Acquisition Act or Direct Purchase)? _____
When the compensation will be paid? _____
23. In case of state land, are there any squatter settlements on the land? _____
If yes, please specify
Number of settlements _____
Will any compensation be paid? _____
When the compensation will be paid? _____
24. Is construction work during the night planned? _____
25. How many trees will be removed for the construction of the scheme? _____
26. How many new trees will be planted? _____
27. Will the developer undertake landscaping and plant grass and ornamental plants for the entire scheme? _____

28. Number and type of major equipment and vehicle that will be used _____

29. Number and type of staff that will work on the project _____

30. Describe the proposed sewerage disposal scheme:

Expected quantity of wastewater _____

Length and type of sewers _____

Any treatment system for the sewer _____

Proposed final disposal _____

31. What will be the source of water for the scheme? _____

32. Will natural gas be supplied? _____

Section II: Screening

Is the proposed housing scheme or part of the proposed scheme located in an ecologically sensitive area? ☐ Yes ☐ No

Is the number of housing units in the scheme 100 or more? ☐ Yes ☐ No

If the answer to any of the above questions is yes, then the project would require an initial environmental examination or an environment impact assessment.

Refer to the Punjab Environmental Protection Agency Review of Initial Environmental Examination and Environment Impact Assessment Regulations, 2022 for appropriate category.

Section III: Environmental Profile

1. Describe the terrain of the proposed site of the housing scheme:

- ☐ Flat or Level (Slope < 3%)
- ☐ Level to moderately steep (Slope 3%-30%)
- ☐ Moderately steep to mountainous (Slope > 30%)

2. Is there any surface water body (river, canal, stream, lake, wetland) within 1,000 m of the proposed scheme?

- ☐ Yes
- ☐ No

If yes, describe each water body:

Name (including type, ie, river, canal or stream)	Dimensions	Status and Uses (Is it polluted? Is domestic or other wastewater discharged to it? What are its uses, eg, agriculture, domestic, industrial, washing, fishery)

3. Is there any site of cultural importance (graveyard, shrine, mosque, archeological site) within 1,000 m of the proposed scheme?

- ☐ Yes
- ☐ No

If yes, please describe? _____

4. Are there signs of soil erosion or landslide anywhere within 500 m of the project area?

- ☐ Yes
- ☐ No

If yes, please describe (where, nature) _____

5. Is there any groundwater well on the proposed site of the scheme or within 500 m of the proposed terminal site?

- ☐ Yes
- ☐ No

If yes, describe each well:

Type (Dug well, tube well, hand pump)	Location (Village, road, mohalla, etc. and distance from the site)	Depth and Yield	Uses (Drinking, agriculture, domestic, industrial, washing, livestock)

6. What is the present land use in the vicinity (roughly a radius of 500 m) of the proposed housing scheme?

Description	Residential (Thick, Moderate, Sparse)	Commercial (Office, Shops, Fuel Stations)	Open Land (Parks, Farmlands, unutilized plots, barren land)	Industrial	Other

(Please attach a map of the proposed project site and indicate roughly the area that you have considered for this evaluation)

7. Please provide the traffic count for all main roads adjacent to the proposed scheme or roads that will provide access to the scheme. The count should be based on data collected, for both directions, on at least three typical working days. Use the following format:

Road _____ Count Location _____

	6:00 am- 9:00 am	9:00 am- 12:00 noon	12:00 noon- 3:00 pm	3:00 pm- 6:00 pm	6:00 pm- 9:00 pm
Large vehicles (trucks, buses, tractor trolleys, Minibuses)					
Medium sized vehicles (Suzuki pickups, cars, jeeps, taxis)					
Small vehicles (Rickshaws, motorcycles, scooters)					
Slow vehicles (animal-driven carts, tongas)					
Others					

(Please add additional sheets for every road)

8. Based on the interview of the surrounding population or a wildlife expert, is any form of wildlife found on, or around the proposed site of the housing scheme?

☐ Yes

☐ No

If yes, please describe _____

9. For any agricultural farmland on the proposed site and a radius of 500 m around it, provide the following information:

Main crop(s) and average yield _____

Source of irrigation water _____

Area affected by salinity or water logging _____

Section IV: Impact Assessment

Potential Negative Environmental Impacts	Tick, if relevant	Mitigation Measures	Tick, if proposed	Monitoring
Loss of environmentally important land (forests, wetlands, habitats)	☐	Ecologically sensitive areas have been avoided	☐	
		Steep slopes have been avoided	☐	
		Prime agricultural areas have been avoided	☐	
Land and asset	☐	All landowners have been identified and a price negotiated, to the satisfaction of both parties	☐	
		Compensation for all assets on the land will be paid at acceptable market rates	☐	
Water Pollution	☐	Wastewater will be treated before disposal	☐	
		Disposal of waste material in the water bodies will be prohibited	☐	
		Lined sewer systems will be constructed to avoid seepage to the ground	☐	
		Material piles will be covered with plastic sheeting to prevent runoff	☐	
Air Pollution	☐	Water will be sprinkled to avoid dust dispersion	☐	
		Material piles will be covered with plastic sheeting to prevent dust emission	☐	
Solid Wastes	☐	Solid waste will not be disposed in open	☐	
		Solid waste collection system will be developed	☐	
		Solid waste produced during the construction will be collected and disposed off at a landfill	☐	
Erosion and siltation	☐	Vegetation cutting and damaging will be avoided as much as possible	☐	
		Recovered plants and local flora will be replanted as soon as possible	☐	
		Tress will be planted by the developer	☐	

Potential Negative Environmental Impacts	Tick, if relevant	Mitigation Measures	Tick, if proposed	Monitoring
Removal of vegetation	☐	Vegetation cutting and damaging will be avoided as much as possible	☐	
		Recovered plants and local flora will be replanted as soon as possible	☐	
		Tress will be planted by the developer	☐	
Noise	☐	Mufflers will be used on construction equipments to minimize noise	☐	
		Work timings will be scheduled in order to avoid nuisance to the communities	☐	
Congestions of the existing roads and access points/ Increased traffic	☐	Access to the housing scheme is planned to minimize impact on existing traffic	☐	
		Existing access road will be widened	☐	
		Access ramp and merge lanes will be provided on the main road	☐	
Shortages and wasteful exploitation of natural resources	☐	Workers will be trained about the efficient use of the raw materials to avoid wastages	☐	
Construction of houses		Temporary sanitation facility will be provided for workers	☐	
		Construction material will not be dumped on streets	☐	
		Construction work will be avoided during the night	☐	
Labor	☐	Use of local labor will be maximized	☐	

Section V: Undertaking

I, _____ (*full name and address*) as proponent for
_____ (*name, description and location of project*) do hereby solemnly affirm and declare:

1. The information on the proposed project and the environment provided in Forms I, II and III are correct to the best of my knowledge
2. I fully understand and accept the conditions contained in the Guidelines for _____ (*name, number and version of the guidelines*)
3. I undertake to design, construct and operate the project strictly in accordance with the project described in Form I, submitted with this undertaking.
4. I undertake to implement all mitigation measures and undertake monitoring stated in Form IV, submitted with this undertaking.

Date _____

Signature _____

Name _____

Designation _____

(with official stamp/seal)

Witnesses:

	Signature	Name	Address
1	_____	_____	_____
2	_____	_____	_____