

EXECUTIVE SUMMARY

1 BACKGROUND

Roads and Buildings Department (RBD) of the Government of Andhra Pradesh (GoAP) has entrusted the responsibility of planning, construction and maintenance of the core state roads network to the Andhra Pradesh Road Development Corporation (APRDC). In order to improve the selected core roads network, APRDC has planned to provide better quality and safer roads to the road users on a sustainable basis. In this context, APRDC is seeking the World Bank funding for the proposed Andhra Pradesh Road Sector Project (APRSP). This is in continuation to the earlier loan from the Bank for improving the core network in the state. As part of this project preparation, APRDC engaged Feasibility consultants to prepare a detailed project report of about 900 km of road stretches which included undertaking social assessment and preparation of Resettlement Action Plan (RAP). As per the requirements of Andhra Pradesh Resettlement and Rehabilitation Policy (APRRP) 2005, an RAP is required to be prepared to assess the impacts resulting from the proposed road improvements. The document in hand deals about the Social Management Plan (SMP) of Kandi-Shadnagar (KS) road (about 69 km) and it is one of the sub-projects (also referred as package) proposed to be covered in the Year 1 of the project implementation.

2 ABOUT APRSP

The proposed project (APRSP) envisions following three components:

Component A - Road Improvement: Based on traffic studies, this road improvement component has been subdivided into the following sub-components

- (i) *Road improvement and up gradation*: Based on core network analysis, APRDC has selected about 900 km of road for widening, upgradation and strengthening purposes. These roads will be constructed by loan assistance from the World Bank.
- (ii) *Public- Private Partnership (PPP)*: APRDC has selected about 1200 km of high traffic density road on PPP mode involving private entrepreneurship
- (iii) *Output and Performance based Road Contracts (OPRC)* : About 6500 km of roads have been selected under this sub-component.

Component B - Institutional Strengthening component: This component will facilitate operationalization of APRDC, capacity building of APRDC.

Component C - Road safety component: This component will help APRDC/RBD towards better management of traffic and other road safety issues through improved technical solutions.

3 OBJECTIVES

The main objectives of the proposed SMP are the following:

- Avoid, if not minimize involuntary resettlement, exploring all viable project alternatives;
- Where involuntary resettlement is unavoidable, assess the magnitude of adverse social impacts and propose mitigation measures;
- Hold consultations with the project stakeholders and assimilate the outcome of these consultations in SMP;
- Develop institutional mechanism for planning, implementing and monitoring the process and the R&R activities;

- Address other social issues (resulting from the proposed project interventions) related to vulnerable groups (including tribal) and road safety; and
- Prepare a plan (SMP) to address all social issues associated with the project.

4 METHODOLOGY

The preparation of SMP has focused on detailed consultations and participation of project affected persons (PAPs) and other project stakeholders. It involved extensive field (census and socioeconomic) survey using structured questionnaires and guidelines for undertaking Focus Group discussions (FGD) and other stakeholders' consultation. The desk review, structured questionnaires, open ended formats, FGD guidelines, preparation of Village Diary etc. were the specific tools used to collect the required information. The data/information thus collected helped in understanding the social and economic features of the affected communities and in appreciating their issues and concerns. Identification of land to be acquired and inventory of structures coming within the corridor of impact were the main components of the census survey carried out among the identified potential project affected families (PAF).

5 PROJECT AREA

Kandi - Shadnagar road, the present sub-project road is a cluster of Major District Road (MDR) and Other District Road (ODR) Sections, located in Telangana Region of Andhra Pradesh. The Project road (PR) starts at km 0/0 in Kandi (Junction with NH-9 at km 496/0) in Medak district and runs south-east direction connecting Shankarpalli, Chevella, Shaabad towns (in Rangareddy District) and terminates at Shadnagar (Junction with NH-7 at km 47/6 through SH4 at km 3/000) in Mahboobnagar District. Cumulative length of this road is 65.50 km. The project road provides connectivity between NH-9 and NH-7, as a bypass to Hyderabad and is presently widely used by interstate traffic.

The proposed project road, by and large, has sufficient Right of Way (RoW) to accommodate the proposed improvement in road geometrics and upgrading of the road to two lane/four lane standard. However, at some locations it becomes necessary to acquire the land for proposed improvements, particularly for a bypass.

6 PROJECT IMPACTS

Proposed road improvement will require about 30 ha of land mainly for a bypass, geometric/curve and junction improvements. Besides, this will require acquisition of road side structures, which in turn, will displace about 80 families. There are 182 project affected families (PAFs) whose population is 1046, referred as project affected persons (PAPs). Out of the total 182 PAFs, 80 are titleholders, 22 encroachers (occupying public/RBD land), 42 squatters (within RoW), 1 tenant and 37 kiosks (mostly wooden cabins which could be easily moved). Social assessment of these PAFs has identified 132 PAFs as vulnerable including 19 Scheduled Caste (SC) and 18 Women Headed (WH) families. Among the PAFs majority (132 PAFs including SC and WH families) is reported to be below poverty level (BPL). In other words, there are 95 PAFs who do not belong to the socially disadvantaged groups (SC and WH) but are economically backward and are living below poverty level. These families are also considered as vulnerable PAFs. The distribution of vulnerable PAFs in different social groups is given in the Table 1. These families received focus attention during RAP preparation for their R&R entitlements and options.

Based on the stakeholders' consultation, a comprehensive study about physical displacement and land acquisition and social assessment undertaken, it has been established the proposed project interventions will result in low adverse impacts on the local population.

7 SOCIAL SAFEGUARD POLICIES TRIGGERED

While the proposed interventions for improvement of Kandi-Shadnagar (KS) road will necessitate some involuntary resettlement, the results of the social assessment established that this will not impact any tribal groups in the project area. More over, the assessment found that there are no tribal specific habitations along the proposed Kandi-Shadnagar (KS) road. In other words, this sub-project triggers the Bank's operational policy (OP 4.12) on involuntary resettlement but not OP 4.10 on Indigenous Peoples (referred as tribal in Indian context). While the present SMP includes a detailed Resettlement Action Plan (including measures for compensating loss of land and other assets, relocation of project displaced families and economic rehabilitation to restore livelihood), it also include measures to address other social issues related to women, prevention of HIV/AIDS and road safety (mainly awareness program) aspects.

8 STAKEHOLDERS' CONSULTATION

To ensure continued people participation during project preparation, a consultation mechanism was adopted which would continue during the project implementation. Local people were informed about the project and its activities and they were consulted in the project related decisions. This helped in understanding not only their perceptions about the project but also seek their opinion about the project, their preferences/options and their input in the project designs. These consultations were two-way communication where relevant information was shared with the project stakeholders including affected communities. The information shared with the stakeholders related to the extent of land acquisition and number of structures affected, physical displacement and relocation, economic rehabilitation, institutional mechanism for planning and implementation of the project, etc. The stakeholders' consultation were held at various levels - village, Mandal, District and Project.

The consultation has emphasized on involving primary stakeholders (project affected families) directly related to planning and implementing RAP and the project activities. During social assessment and RAP preparation, specific consultation strategy was adopted to consult with the vulnerable PAFs. This included sharing information on the specific measures to support these vulnerable PAFs in their R&R process. The SMP includes a consultation framework to be adopted during its implementation.

9 R&R POLICY FRAMEWORK

The R&R Policy 2005 of GoAP has a number of progressive measures to help those affected by the infrastructure projects in the state. However, a review of the policy revealed that the R&R issues related to road sector projects have not been adequately addressed. In this regard, a gap analysis of the state R&R policy was carried out to identify additional measures required to address R&R issues associated with road sector projects. Changes proposed in APRRP 2005, based on this gap analysis, have been included in the R&R entitlement framework for the present APRSP. Accordingly, the changes proposed by APRDC have been approved by GoAP. This R&R entitlement framework together with specific measures to address other social issues (HIV/AIDS, road safety) provides the base for the preparation of this SMP (including RAP as an important component). Important features of the policy framework for land acquisition and R&R entitlements under APRSP are as follow:

- Land acquisition (LA) will be as per LA Act 1894. The project will follow consent award (or mutual negotiations) and if this fails, normal LA process will be followed.
- A one time financial assistance equivalent to 750 days of minimum wages will be paid to a PAF who becomes landless due to loss of land for the project. For those becoming marginal

farmers and small farmers, this financial assistance will be equivalent to 500 man days and 350 man days respectively.

- Training will be organized to one member of each PAF eligible for R&R assistance under the R&R policy framework. Such families will also be helped in their rehabilitation process by dovetailing on-going economic programs (for income generation) of the Government.
- PAFs losing house site or businesses will be compensated at replacement value for lost structure. In addition, a house site or business site (free of cost) or cash in lieu thereof will be extended to eligible PAFs.
- Provisions have been made in the R&R policy for one-time grant for cattle shed and subsistence allowance (minimum wages equivalent to 240 man days) to each PDF.
- Special provision of a lump sum (Rs 40,000) is available for BPL and other vulnerable among PDFs towards construction of house in the new resettlement sites.
- Among vulnerable PDFs, residing or operating businesses within RoW, site will be given to construct alternate housing or work place.
- A transport allowance will be provided to all PDFs to shift their household belongings to the new resettlement site.
- Common properties will be replaced in consultation with the local communities.

A detailed R&R entitlement is presented in Table 2. The Policy framework describes the implementation, fund flow and monitoring mechanisms for RAP implementation.

Table 2: R&R Entitlement Framework

Type of Loss	Unit of Entitlement	R&R Entitlement Framework
Agricultural land	Titleholder Family	(i) Compensation as per the LA Act through consent award. (ii) If consent award fails to reach agreement the difference between replacement value and market value (approved by the Government) will be paid in the form of rehabilitation assistance. (iii) If alternate land is provided under section 6.4 of APRRP, the cost of land will be deducted from the compensation amount and the rehabilitation grant will be proportionately reduced, however other R&R entitlements will be extended as per APRRP 2005 (iv) At least 3 months notice will be given in advance of crop harvest, failing which compensation for crop lost will be paid. (v) A one time lump sum amount equal to 750 days, 500 days and 375 days of minimum agricultural wages will be paid to those (owner) PAFs who after LA become landless, marginal, small farmers respectively. Training will be arranged for income generation activities (IGA) to one member of such PAFs in suitable IG activities.
	Share Cropper	Special benefit to ST families <ul style="list-style-type: none"> • Preference in allotment of land • A lump sum amount equal to 500 days minimum wages for lost customary rights or use of forest produce (if any) An affected share cropper will get a sum equal to the un-expired lease period

Type of Loss	Unit of Entitlement	R&R Entitlement Framework
Homestead (or non-agril. land)	Titleholder	<p>(i) Compensation as per LA Act for the loss of homestead land</p> <p>(ii) If more than 25% of the structure is lost, such affected people will be categorized as ‘displaced’</p> <p>(iii) Those affected but not displaced will get compensation for the portion of homestead land and structure affected by the project and permission to salvage construction material.</p> <p>(iv) Those displaced will get</p> <ul style="list-style-type: none"> • Compensation for the structure affected (part or full) computed at BSR without deducting depreciation • Permission to salvage construction material • Alternate house site (to a maximum extent of 150 sqm in rural areas and 75 sqm. in urban areas) or cash in lieu of site to those getting physically displaced. • A sum total of Rs 40,000 as one time financial assistance to BPL for house construction. • Subsistence allowances equal to 240 days of minimum agriculture wages. • Grant for a cattle shed equivalent to a sum total of Rs 3000. • IGA grant to affected artisans, small traders, and self employed persons at Rs 25,000 per PDF • Grant for transporting materials at Rs 5,000 per PDF
	Tenant/ Lease holder	<p>Only displaced tenant will get:</p> <ul style="list-style-type: none"> • A sum equal to two months rental in consideration of the disruption caused. • Transportation allowance of Rs. 5,000 towards shifting household materials.

Type of Loss	Unit of Entitlement	R&R Entitlement Framework
Land under commercial use	Titleholder (Owner and occupier)	<p>(i) Compensation for the loss of land (commercial).</p> <p>(ii) For the structure affected (part or full), compensation will be computed at BSR without deducting depreciation</p> <p>(iii) Permission to salvage construction material</p> <p>(iv) If more than 25% of the structure is lost, the affected business/work place will be categorized as ‘displaced’.</p> <p>(v) PAFs affected but not displaced will get compensation for the portion of land lost and the structure (at BSR without depreciation) affected by the project.</p> <p>(vi) Those displaced will get</p> <ul style="list-style-type: none"> • An alternate site (40 sq.mtr in rural areas or 25 sq.mtr. in urban areas) free of cost or cash equivalent in lieu there of. • A construction assistance of Rs 10,000 for each PDF <p>(v) If alternate shop/work place is allotted by the project, those displaced will not be eligible for alternate site and construction assistance.</p> <p>(v) Other assistance:</p> <ul style="list-style-type: none"> • Subsistence allowances equal to 240 days of minimum agriculture wages. • A transportation allowance of Rs 7,000 to Residence cum commercial. • A transportation allowance of Rs 2,000 to commercial units.
	Titleholder (Absentee Land Lord)	<p>(i) Only compensation for both land and structure (owned)</p> <p>(ii) Permission to salvage materials from demolished structure.</p>
	Tenant/Lease holder	<p>Only displaced tenant will get:</p> <ul style="list-style-type: none"> • A sum equal to two months rental in consideration of the disruption caused. • Transportation allowance of Rs. 1,000 towards shifting.
Other assets	Owner affected family	Loss of other assets (including wells, trees) will be compensated equivalent to their replacement value.
Encroachers (Agril. land)	Family	If a PAF is dependent on the public land required for the project for the livelihood and belongs to ‘vulnerable’ groups he/she will get assistance to take up self-employment activities by dovetailing government programs or providing an assistance of Rs 25,000 to take up IG Activity.
Encroachers (Non-agril. land)	Family	If encroached land is used for housing and/or commercial purpose and if the affected person loses more than 25% of the built up structure (including one’s own portion) and if physically displaced will be given the same R&R assistance as available to a displaced family. However, such PAFs will not get the compensation for the encroached land.

Type of Loss	Unit of Entitlement	R&R Entitlement Framework
Squatters (for homestead purpose)	Vulnerable Family	<p>If the public land is occupied for homestead purpose and if the affected person has no alternate housing he/she will get:</p> <ul style="list-style-type: none"> • Notice to remove the structure • An alternate site of 150 sq.mtr. in rural areas or 75 sq.mtr. in urban areas or cash equivalent and compensation for lost structure without depreciation. If the family is allotted alternate weaker section housing, he/she will not be eligible for compensation and assistance or alternate housing equivalent to IAY. • House construction grant Rs 10,000 • A transportation assistance of Rs 2,000
Squatters (for commercial)	Vulnerable Family	<p>If the PDF has no alternate place, he/she will get:</p> <ul style="list-style-type: none"> • Notice to remove the structure • An alternate site of 40 sq.mtr in rural areas or 25 sq.mtr. in urban areas or cash equivalent and compensation for lost structure without depreciation. If the project allots an alternate commercial place developed by it, the PDF will not be eligible for neither compensation nor house construction assistance or Rs 10,000 for shop construction as per amended policy for APRSP. • A transportation assistance of Rs 1,000 • A maintenance allowance of Rs 2,000 • PAFs from vulnerable sections will be provided training to take up self employment activity by dovetailing ongoing Government schemes
Kiosks	Vendor	<p>Ambulatory vendors licensed for fixed locations will be considered as kiosks and each affected vendor will get</p> <ul style="list-style-type: none"> • Alternate site for kiosks or a sum of Rs.5000 for self relocation <p>NOTE: Vendors in groups (of more than 50) will be considered for relocating in a commercial complex, if developed by the project. Those allotted space there will not get any assistance.</p>
Common infrastructure and common Property Resources	Community	<ul style="list-style-type: none"> • Common properties will be replaced in consultation with the community • Civic infrastructure will be replaced in consultation with the affected community and the local administration
Any Unforeseen Impacts	Affected community and/persons	Any unforeseen impact would be mitigated/enhance as per the APRRP 2005 or through any additional measures as may be required

10 LAND ACQUISITION

The project requires about 30 ha private land which land will be acquired in accordance with the Land Acquisition (LA) Act 1894 mainly using the provisions of 'consent award' or through mutual negotiations. LA and resettlement activities will be completed before handing over the site for construction. Possession of land by the project will be taken over only after disbursement of compensation and R&R assistance.

Land acquisition procedures will be initiated with the section 4(1) notification under LA Act indicating the intention to acquire land for the project. Determination of compensation and its payment is expected to start from 1st August 2009 as indicated below.

Table 1: LA Plan Schedule

Sl. No.	Activity	Timeline
1	Publication of notification under section 4(1) of the LA Act – intention to acquire land	25 th April 2009
2	Receipt of objections from public	25 th May 2009
3	Hearing of objection by LAO	15 ^h June 2009
4	Publication of notification under section 6(1) – declaration of acquisition (in phases)	15 th July 2009 onwards.
5	Determination of compensation and issue of award by the competent authority (in phases)	1 st Aug 2009 onwards.
6	Payment of compensation for land and structures to PAPs	15 th Aug 2009 onward

In terms of the actual built up area, the project entails acquisition/appropriation of about 1945 sq. mtr. of structures which will be demolished for the project interventions. Compensation for structures will be computed at the Basic Schedule of Rates (BSR) adopted by RBD. However, no deduction will be made towards depreciation. Affected families will be permitted to carry the construction material that they can salvage from the site. Other assets like crops, trees, etc if affected will be compensated as per the procedures laid out in the RAP document.

11 RESETTLEMENT

The proposed Kandi-Shadnagar (KS) project has planned for resettling all eligible PDFs within the framework of APRRP 2005 together with amendments for the road sector approved by GoAP. The relocation sites proposed to be developed are near the place of displacement along the road. These resettlement sites are mainly proposed in RBD land. Relocation sites have been proposed along the road, keeping in view the proposed technical designs and ensuring adequate safety measures. At locations where R&B land is not available, the District Administration will provide land for resettlement site subject to availability of Government land. In this process, the District R&R Committee will help in identification of suitable government land for resettlement sites. PAFs not getting alternate land or if they do not prefer the project identified site will be eligible for cash in lieu of the land.

The procedures to be followed by the implementing functionaries have been detailed out in SMP. Essentially, these include verification and updating the list of PAFs; public disclosure of this list and their (on individual basis) R&R entitlements; issuance of ID Cards along with their photos, losses and entitlements; compensation for loss of land and other assets; disbursement of relocation assistance including house construction assistance and subsistence allowance; development of resettlement sites and allotment of house sites, etc. No family will be deprived of their land/structure unless compensated. No construction will be initiated unless PAFs are compensated and they receive their R&R assistance. Similarly, no construction will be permitted unless all PDFs are properly resettled. As indicated in Table 2, displaced families under project will get a free house site, a house construction grant for BPL families, grant for cattle shed, transport assistance and subsistence allowance.

12 REHABILITATION

The over all approach of the project towards the economic rehabilitation of PAFs is to ensure that they enhance, if not at least regain their pre-project level of economic livelihood. Towards

this end, the R&R policy framework agreed for the project includes allotment of government land (where available and agreed by the eligible PAF) together with the financial assistance towards land development and adjustment of compensation towards the cost of land allotted. Financial assistance to eligible PAFs is provided if they become landless, marginal and small farmers after LA for the project. Such families are also supported to access on-going income generation schemes of the government as complementary to their eligibilities. Government programs for income generation are available to vulnerable families (BPL and SC) on subsidy-loan schemes. The Package NGO (selected for Kandi-Shadnagar road) will help such vulnerable PAFs to access government programs. The rehabilitation assistance provided to PAFs along with subsidy will help them to enhance their living conditions. One member from each of such eligible PAFs will be given training either to impart new skill or improve the existing ones to help them take up alternate income generating schemes and supplement their household income.

All efforts will be made to ensure that the interested (and willing to take-up the government schemes) PAFs are covered under the on-going government schemes. The Package NGO has a major role in helping PAFs in not only getting their R&R entitlements on time but also in ensuring their proper use. The NGO, with the help of the Package Manager (in charge of Kandi-Shadnagar road), will approach the concerned government departments/agencies and ensure their coverage under Government programs, particularly the Indira Kranthi Patham.

Vulnerable families will be preferred in the allotment of sites for businesses/shops. Concerted efforts will be made to help such vulnerable PAFs to access government schemes for their socio-economic development.

13 OTHER SOCIAL ISSUES

Vulnerable Groups

There are no indigenous peoples (referred locally as tribal) in the project area and therefore the adverse impacts on the tribal under this project does not arise. The vulnerable among PAFs include the BPL (including WH households and SC families). During implementation, all vulnerable if interested will be given preference for wage employment in the project construction activities.

Gender Issues

Women are categorized as vulnerable if they are affected by the project on individual basis. Such families are eligible for additional support in their R&R process. Women will get wages, under the project, at par with men on 'equal work equal payment' basis. Where ever available and active women Self Help Groups, if interested will be involved in project implementation. Package NGO has an important role to involve women members through out the project period.

Child Labour

No child labour will be involved in the construction work. This is an important clause of the contractual agreement with the Construction agency. This will be strictly monitored by the project during implementation.

Road Safety Education

During social assessment and stakeholders' consultation, road safety has emerged an important issue and local communities and other road users expressed their concerns, particularly on completion of project which would significantly increase the vehicle speed and traffic flow. In this regard, the project provides for road safety measures in the construction plan. However, to educate the local communities on the use of road, following traffic rules and ensuring safety, a program on road safety education has been included in the present SMP. Since the Package

NGO would be developing a good rapport with the local communities and other road users, road safety education and awareness campaigns will be one of its important activities of the assignment.

Prevention HIV/AIDS Transmission

It is well established that because of proposed improvements in the road, mobility of Commercial Sex Workers and truckers and other road users will also increase and hence increased chances of transmission and spread of HIV/AIDS. Prevention and control of HIV/AIDS transmission will be one of the important social responsibilities of the project. An action plan for the prevention and control of HIV/AIDS has been prepared in close coordination with the Andhra Pradesh AIDS Control Society (APSACS) for the entire AP Road sector project, of which this JM road is also included. This Plan will be implemented by the Package NGO, closely working with APSACS local functionaries and supported by the Package Manager.

14 IMPLEMENTATION MECHANISM

In this comprehensive SMP, RAP is the most important component. Other components of SMP include prevention and control of HIV/AIDS and Road Safety Action Plan. This SMP, therefore, has a variety of project stakeholders, target groups and implementing agencies. The most important and significant R&R component will be implemented by the Package Manager (or the Engineer in-charge of the Package) in close coordination with the District Administration and this will be closely monitored by the District R&R Committee. RAP implementation will be facilitated by the Package NGO. HIV/AIDS plan will be implemented by involving APSACS directly. Road safety measures will be implemented with the help of Transport Department where Package NGO will be undertaking education and awareness programs among the local/road side communities and other road users.

Therefore, the agreed framework for SMP implementation is as follows.

- The SMP including RAP will be approved by GoAP
- Besides the project PMU, monitoring of RAP will be done by the District level R&R Committee and Nodal NGO
- LA and R&R activities will be implemented through District Administration
- Package Manager will be implementing other components of SMP (HIV/AIDS Action Plan and Road safety program) with the help of the Package NGO and support from respective government agencies (APSACS and Transport Department).

15 BUDGET

The budget for this Social Management Plan (including land acquisition and R&R activities) works out to Rs. **Rs. 184.7 millions**. The budget provides for compensating land and other assets required for the project, R&R assistance, and development of resettlement sites. This also provides for capacity building and training, cost of engaging Package NGO and administrative expenses at the Package level. Budget required for HIV/AIDS and Road Safety measures will come from the respective plans prepared at the project level.

Table 3 Existing and Proposed RoW

Sr. No.	Name of Village/ Settlement	Chainage (km)		Existing RoW (m)	Proposed RoW (m)	Reason for Realignment
		From	To			
1	Kandi	0/000	1/000	20.0	20.0	Geometric improvement

Sr. No.	Name of Village/ Settlement	Chainage (km)		Existing RoW (m)	Proposed RoW (m)	Reason for Realignment
		From	To			
2	Cheryal	5/000	6/000	20.0	20.0	Geometric improvement
3	Julkal	8/300	10/230	20.0	25.0	Geometric improvement
4	Eddumailaram	10/450	11/700	20.0	25.0	Geometric improvement
5	Singapur	12/000	13/000	20.0	25.0	Geometric improvement
6	Fathepur	13/000	16/000	20.0	25.0	Bypass, Grade separator/Flyover
7	Ramanthapur	17/500	19/100	22.0	25.0	Geometric improvement
8	Yellawarhi	19/100	20/500	22.0	25.0	Geometric improvement
9	Kammeta	28/700	30/000	30.0	30.0	Geometric improvement
10	Gollapally	30/500	30/600	30.0	30.0	Geometric improvement
11	Allawada	42/000	43/000	30.0	30.0	Geometric improvement
12	Sitharampuram	49/800	54/000	30.0	30.0	Geometric improvement
13	Kakloor	54/300	54/550	30.0	30.0	Geometric improvement
14	Shabad	55/800	56/400	30.0	30.0	Geometric improvement
15	Shadnagar	62/000	62/300	30.0	24.0	Geometric improvement
16	Ellakatta	64/100	64/500	30.0	30.0	Turning improvement

Table 4 Basis of Vulnerability

Ownership of Structure	Types of Structure to be Losses	SC	BPL	WHH	Total Vulnerable*
Encroacher	Agricultural	5	53	8	59
	Residential		1		1
	Commercial	1	8		8
	R & C		4		4
Squatter	Residential		20	5	20
	Commercial	2	7		7
	R & C	4	5		6
Kiosk	Kiosk	7	25	5	27
	Total	19	123	18	132