SFG1584 REV

World Bank-financed Ningbo Sustainable Urbanization Demonstration Project (Phase 1)

Social Assessment Report

National Research Center for Resettlement, Hohai University (NRCR) December 2015

1	Introduction ······1
	1.1 Background and Overview of the Project
	1.2 Purpose of SA ······3
	1.3 Survey Process ·······3
	1.4 SA Methods······3
	1.5 Key Concerns of SA4
2	Socioeconomic Profile of the Project Area
	2.1 Administrative Divisions ····································
	2.2 Population ····································
	2.3 Ethnic Minorities ······7
	2.4 Social and Economic Development ······7
	2.5 Urbanization Level ······7
	2.6 Tourism ······8
	2.7 Traffic
3	Stakeholder Identification and Demand Analysis9
	3.1 Beneficiary Area ·····9
	3.2 Stakeholder Identification ·····9
	3.3 Demand Analysis
4	Local Poverty
	4.1 MLS Population 18
	4.2 Floating Population
	4.2.1 Floating Working Population18
	4.2.2 Population Inflow 19
	4.3 Local Poor Population 21
5	Social Impact Analysis
	5.1 Urban Livability Component
	5.1.1 Positive Impacts
	5.1.2 Negative Impacts ······26

Contents

	5.2 Public Transportation Component
	5.2.1 Positive Impacts 26
	5.2.2 Negative Impacts
	5.3 Social benefits for main beneficiary groups of the Project and special groups
6	Social Gender and Development
	6.1 Overview of Local Women ······ 31
	6.1.1 Population
	6.1.2 Conditions of Local Women
	6.2 Project Impacts on Women ······ 32
	6.2.1 Positive Impacts
	6.2.2 Potential Risks
	6.3 Women's Needs and Expectations
	6.4 Women's Social Status
	6.5 Relations between Women and Traffic
	6.6 Social Gender Action Plan
7	Public Participation 38
	7.1 Participation at the Preparation Stage
	7.2 Participation at Subsequent Stages
	7.3 Public Participation Mechanism and Strategy
	7.3.1 Past Traffic Safety Activities in Xiangshan County
	7.3.2 Traffic safety publicity and training on the community level and at schools
8	Risks of the Project43
	8.1 Risks in Project Design
	8.2 Risks in Project Construction
	8.3 Risks in Subsequent Project Operation and Management
Арр	pendixes ······48
	Appendix 1: FGD Minutes
	Appendix 2: Interview Minutes
	Appendix 3: Fieldwork Photos

List of Tables

Table 1-1 Summary of SA Methods 4	
Table 2-1 Administrative Divisions (2013) 6	
Table 2-2 Population and Composition by Administrative Division (2013)6	
Table 2-3 Population Birth, Death and Natural Growth Rates (2013)	
Table 2-4 GDP and Composition (2014) 7	
Table 2-5 Disposable Income of Urban Residents and Net Income of Rural Residents (2014)	7
Table 2-6 Tourism Income and Visitors Received (2014)	
Table 3-1 Perceived Traffic Problems (%) 10	
Table 3-2 Evaluation of Local Traffic Problems (%) 11	
Table 3-3 Evaluation of Local Traffic Infrastructure (%)······11	
Table 3-4 Needs for Improvement of Local Traffic Infrastructure (%)11	
Table 3-5 Evaluation of Road Maintenance (%)······12	
Table 3-6 Evaluation of Local Traffic Safety (%)······12	
Table 3-7 Evaluation of Local Traffic Safety Problems (%) 13	
Table 3-8 Needs for Improvement of Local Traffic Safety (%)13	
Table 3-9 Evaluation of Local Bus Problems (%) 15	
Table 3-10 Evaluation of Bus Service (%)	
Table 3-11 Traffic Modes of Residents by Educational Level (%)16	
Table 3-12 Bus Taking Frequency of Residents by Educational Level (%)16	
Table 3-13 Evaluation of Deficiencies in Bus Stops (%)17	
Table 3-14 Evaluation of Deficiencies in Bus Interiors (%)17	
Table 4-1 MLS Statistics by Administrative Division18	
Table 4-2 Floating Population of Xiangshan County (2013)	
Table 4-3 Floating Working Population in Industrial Parks	
Table 4-4 Floating Population of Dandong Sub-district and Poverty 19	
Table 4-5 Floating Population of Danxi Sub-district and Poverty	
Table 4-6 Poor Population of Dandong Sub-district 21	
Table 4-7 Poor Population of Danxi Sub-district 22	
Table 5-1 Needs for Traffic Improvement (%) 24	
Table 5-2 Evaluation of Accessibility to Public Facilities (%)24	
Table 5-3 No.1 Perceived Positive Impacts of the Project by Occupation (%)25	
Table 5-4 No.1 Perceived Negative Impacts of the Project by Occupation (%)26	
Table 5-5 Evaluation of Disadvantages of Taking Bus (%)······27	
Table 5-6 Bus Waiting Time (%) 27	
Table 6-1 Local Female Population (2013) 31	
Table 6-2 Age Distribution of Samples by Gender ······31	
Table 6-3 Educational Level Distribution of Samples by Gender	
Table 6-4 Occupation Distribution of Samples by Gender ······32	
Table 6-5 Annual Income Distribution of Samples by Gender	
Table 6-6 Public Participation of Samples ······32	
Table 6-7 Public Participation of Samples by Activity Type (%)32	
Table 6-8 No.1 Traffic Mode Distribution of Samples by Gender (%)	
Table 6-9 Attitudes to the Project of Samples by Gender (%)	
Table 6-10 Perceived Importance of the Project of Samples by Gender (%)	

Table 6-11 Willingness of the Samples for Employment under the Project (%)35
Table 6-12 Necessity for Public Participation Perceived by the Samples (%)35
Table 6-13 Attitudes to Improved Public Participation Awareness of the Samples (%) \cdots 35
Table 6-14 Social Gender Action Plan 37
Table 7-1 Summary of Public Participation Activities at the Preparation Stage38
Table 7-2 Whole-process Participation Plan of the Traffic Safety Action Team40
Table 8-1 Summary of Project Risks and Proposed Actions45

List of Figures

Figure 1-1 Schematic Map of the Project	2
Figure 3-1 Road junctions near the Flower Market	
Figure 3-2 Current Situation of Huancheng West Road	
Figure 3-3 Entrance of Wenchang Street	
Figure 3-4 Shops on Wenchang Street	14
Figure 3-5 Gate of Nandan Road Experimental Primary School	
Figure 3-6 South Gate of Fengrao Road Experimental Primary School	
Figure 3-7 Bus Stop near Happy Garden Community	
Figure 3-8 Bus Interiors	
Figure 4-1 Distribution of Poor Population in Registered Population in D	andong and Danxi Sub-districts
Figure 4-2 Distribution of Poor Population in Floating Population in Da	andong and Danxi Sub-districts
Figure 7-1 Project Information Disclosure	
Figure 7-2 Outcomes of Public Participation	41

ABBREVIATIONS

AH	-	Affected Household
AP	-	Affected Person
FGD	-	Focus Group Discussion
IA	-	Implementing Agency
M&E	-	Monitoring and Evaluation
MLS	-	Minimum Living Security
PMO	-	Project Management Office
SA	-	Social Assessment

Units

Currency unit	=	Yuan (RMB)
US\$1.00	=	RMB6.00
1 hectare	=	15 mu

Abstract

A. Overview of the Project

The Ningbo Sustainable Urbanization Demonstration Project (Phase 1) (hereinafter referred to as the "Project") consists of 4 components – Urban Livability, Public Transportation, Flood Risk Management, and Technical Assistance and Capacity Building. The Project aims to build a safe and convenient integrated traffic system, improve the layout of urban public spaces and the public transportation system, relieve traffic congestion, and improve urban road traffic safety, and build a peaceful, harmonious, livable and environment-friendly urban environment.

B. Purpose and methods of SA

The purpose of social assessment (SA) is to identify primary stakeholders and their needs, opportunities and risks arising from project construction and operation for stakeholders, avoid or mitigate social risks by developing an action plan, help improve the project design, and involve individuals and groups who may be most directly affected by the Project in project activities.

In order to prepare this report, the task force conducted a social survey in 20 villages/communities in Xiangshan County with the support of the PMO, and development and reform bureau from October 2014 to June 2015, using such methods as FGD, key informant interview, in-depth interview, observation, questionnaire survey and literature review. ①FGD: 21 FGDs were held with 128 local residents, including 41 women, accounting for 31%, and 30 poor and disabled persons, accounting for 23%; ②Key informant interview: 50 men-times of key informants from the county women's federation, ethnic and religious affairs bureau, civil affairs bureau, social security bureau, transport bureau, planning bureau, housing construction bureau, schools, sub-district offices, village/community committees were interviewed; ③In-depth interview: 40 men-times of residents from 20 villages/communities in the project area were interviewed; ④Questionnaire survey: 253 copies of the questionnaire were distributed in 6 sampled villages/communities, where 58.1% of the respondents are women and 54.5% rural residents.

C. Needs of primary stakeholders

The task force identified primary stakeholders and learned their needs during the fieldwork:

a) Affected local residents: ①mproving traffic safety, convenience and efficiency, saving and traffic time costs, especially for women, old people and the disabled; ②mproving road infrastructure and road crossing safety, and relieving traffic pressure; and ③mproving public transportation convenience, and offering more choices of daily traffic modes to residents.

b) Local enterprises and stores: ①reducing transport costs of local industrial enterprises, and ensuring the timely supply of raw materials; ②mproving public spaces on commercial streets; and ③promoting local economic growth through commerce introduction.

c) Local educational institutions: ①mproving road and pavement quality, and building supporting facilities; ②mproving public spaces and building infrastructure for safety assurance; ③upgrading bus infrastructure near schools.

D. Poverty

a) MLS population : In 2014, the MLS population of Xiangshan County was 9,377, including a rural MLS population of 8,970. The MLS populations of Dandong and Danxi Sub-districts were 170 and 260 respectively.

b) Floating population: At the end of 2013, the floating population of Xiangshan County was 136,400, that of Dandong Sub-district 20,400, and that of Danxi Sub-district 43,100. Most floating population was employed in Industrial Demonstration Park, Dongchen New Zone, Coastal Industrial Park and the Renyitu area. The Project will facilitate residence and traffic for employed population.

c) **Poor population**: The poverty line of Xiangshan County is per capita income of 7,240 yuan, and the poor populations of Dandong and Danxi Sub-districts are 21,735 and 14,636 respectively.

E. Social impacts

Urban Livability

Positive impacts: 1) relieving traffic pressure, improving road quality and shortening traffic times; 2) improving the urban traffic network; 3) improving road safety and accessibility; 4) improving the urban commercial environment and public facilities; 5) developing the local economy; and 6) promoting the employment of local residents, especially vulnerable groups, and improving their living standard.

Negative impacts: 1) 268.91 mu of land will be acquired permanently for the Urban Livability component, affecting 126 households with 537 persons; 2) construction impacts on operations of nearby plants; 3) construction impacts on the traffic efficiency and safety of residents and students; and 4) construction impacts on school operations and nearby residents' daily lives.

Public Transportation

Positive impacts: 1) improving urban public transportation facilities, including bus stations, platforms and interiors for the convenience of public transportation, especially old people, women, the disabled and other vulnerable groups; 2) relieving urban traffic pressure, and reducing the frequency of private car runs; and 3) improving the layout of bus routes and public transportation efficiency.

Negative impacts: 1) LA and HD impacts: 12.52 mu of land will be acquired permanently for the Public Transportation component, affecting 17 households with 51 persons in one village; 2) potential traffic safety risks; 3) construction impacts on nearby stores' operations; 4) construction impacts on traffic efficiency and safety; and 5) construction impacts on nearby residents' daily lives.

F. Social Gender and Development

The female respondents have mostly received junior high school education. Their occupations mainly include individual business, enterprise employee, self-employer, etc. Most women do housework, and take care of old people and children at home, and their income and public participation levels are lower than those of men.

The Project's positive impacts on women mainly include improving women's traffic environment and safety, offering more jobs to them, increasing their income, and creating a comfortable living environment for women, while the main negative impacts are reducing their income due to land loss, and affecting their health and traffic safety.

Women's needs: 1) need for improved public transportation; 2) need for jobs under the Project; and 3) need for improved public participation awareness.

G. Social risks

1. Risks at the design stage: 1) Traffic infrastructure, bus stations and bus interiors are designed not in consultation with local residents and vulnerable groups; and 2) Public spaces are reconstructed not in consultation with stores, local residents, parents and teachers.

2. Risks at the implementation stage: 1) LA and HD risks; 2) external risks, such as natural disasters and construction accidents; 3) impacts on traffic safety and daily lives; and 4) impacts on nearby stores' operations.

3. Risks in at the operation and management stage: 1) maintenance risk of traffic, road and commercial infrastructure; 2) risk of road aging and damage; and 3) risk of lack of traffic safety knowledge among residents.

1 Introduction

1.1 Background and Overview of the Project

Ningbo City is located on the southeast coast of China, with a land area of 9,816 km², a sea area of 8,232.9 km² and a coastline of 1,594.4km. In 2013, the city's resident population was 7.663 million, registered population 5.801 million, urbanization rate among resident population 69.8%, urbanization rate among registered population 36.9%, and the income ratio of urban to rural residents 2.03:1. 5.82%, 60.63% and 33.55% of floating population is engaged in primary, secondary and tertiary industries respectively, and skilled labor force accounts for 27.05% of migrant labor force. With the further implementation of the industry adjustment strategy, enterprises are turning from labor-intensive ones to technology-intensive ones. Since 2000, the city's population employed in primary industries has been dropping, while that in secondary and tertiary industries has been rising, indicating an increasingly significant urbanization trend.

Xiangshan County, governed by Ningbo City, has a land area of 175 km² and a sea area of 5,350 km². The growth rate of primary industries in Xiangshan County has been lower than that of secondary and tertiary industries, and dropping year by year. During the implementation of the new-type urbanization strategy, the county has encountered such problems as backward urban infrastructure, and non-sustainability of industrial development. At the end of 2013, the county had a large floating working population of 136400, mostly in the industrial parks in the county town. The county labor and social security bureau is taking measures to promote the employment floating population, and has enacted a social security policy for floating population, and the county education bureau is also managing to solve the education problem for children of migrant workers. Traffic and road improvement, and urban space upgrading in the project area will benefit both local residents and floating working population.

In order to improve urban livability and public transportation infrastructure, increase the capacity of the urban road network, and strengthen institutional capacity to meet future challenges in urban planning and management brought by rapid urbanization and motorization, relieve traffic congestion, and improve urban road traffic safety, and build a peaceful, harmonious, livable and environment-friendly urban environment, the Xiangshan County Government has applied for a Bank loan of USD150 million for the Project, including USD50 million for Phase 1.

Figure 1-1 Schematic Map of the Project

According to the project proposal, the Project consists of 4 components – Urban Livability, Public Transportation, Flood Risk Management, and Technical Assistance and Capacity Building.

1. Urban Livability: public space upgrading (facility upgrading and structural optimization of Tian'an Road and Dannan Road), intelligent traffic systems, and road network improvement, including the construction of Baohai Road (Xinyi Road-Laixun Road), 730m long, 24m wide, and Huancheng West Road (Danshan Road-Binhai Avenue), 3,152.28m long, 36m wide

2. Public transportation: construction of bus stations (construction of Tashan bus terminal, Jiuqing integrated bus station and new town hub); and bus infrastructure and equipment upgrading

3. Flood Risk Management aims to reduce the vulnerability of the Xiangshan urban area to floods, including protection of natural water systems, reduction of storm water runoff and peak flows, protection of water quality and ecosystem by increasing filtration and retention, and upgrade of flood protection and drainage infrastructure. The subcomponent will also assist in the emergency preparedness and response systems, urban planning and protection of green space.

4. Technical Assistance and Capacity Building: sustainable local development and planning; capital investment and asset management; innovative financial mechanisms for public service

delivery; and project management and supervision

1.2 Purpose of SA

The Project aims to build a safe and convenient integrated traffic system, improve the layout of urban public spaces and the public transportation system, relieve traffic congestion, and improve urban road traffic safety, and build a peaceful, harmonious, livable and environment-friendly urban environment.

This SA aims to learn different stakeholders' expectations and needs, identify the Project's positive and negative impacts, and take a series of measures to ensure that all stakeholders participate extensively in and benefit equally from the Project. In view of this, the main objectives of this SA are:

1. Identifying the Project's primary stakeholders, learning their perceptions of and needs for the Project, and collecting their comments on the Project;

2. Identifying the Project's impacts on and potential risks to stakeholders, especially women, the poor and other vulnerable groups;

3. Strengthening the understanding of local knowledge, promoting extensive public participation, especially women, the poor and other vulnerable groups, and proposing traffic management modes and public participation strategies suited to local conditions;

4. Learning impacts of local traffic and infrastructure on local economic and social development, and urban and rural residents; and

5. Developing a social action plan based on extensive participation and consultation to improve the project design, evade project risks, and promote the realization of the project objectives.

According to the data supplied by the county ethnic and religious affairs bureau, the minority population of Xiangshan County accounted for 0.09% of registered population in 2013. In addition, there is no hereditary minority population in the project area, so the Project does not trigger the Bank's OP4.10, and it is not necessary to prepare an ethnic minority development plan.

281.43mu of collective land will be acquired permanently, and rural residential houses of 2000 m² demolished for the Urban Livability and Public Transportation components of the Project, affecting 143 households with 588 persons. According to the Bank's OP4.12 and BP4.12, a resettlement action plan should be prepared for the Project.

1.3 Survey Process

From October 2014 to June 2015, the task force conducted a socioeconomic survey and a supplementary survey with the support of the Xiangshan PMO, county development and reform bureau, housing construction bureau, transport bureau, etc., and communicated project changes and survey findings with the feasibility study agency adequately. During the survey, the task force visited the proposed sites, conducted a questionnaire survey with 253 samples; 40 men-times of in-depth interviews, and 50 men-times of key informant interviews, and held 21 FGDs, including 7 FGDs with women.

1.4 SA Methods

1. FGD

21 FGDs were held with 128 local residents to learn needs for the Project, impacts of the Project and suggestions on the Project, including 41 women, accounting for 31%, and 30 poor and disabled persons, accounting for 23%.

2. Key informant interview

50 men-times of key informants from the county women's federation, ethnic and religious affairs bureau, civil affairs bureau, social security bureau, transport bureau, planning bureau, housing construction bureau, schools, sub-district offices, village/community committees were interviewed to learn the Project's impacts and potential risks, needs for and suggestions on the Project, etc.

3. In-depth interview

40 men-times of residents from 20 villages/communities in the project area were interviewed to learn attitudes to and needs for the Project, the Project's impacts and potential risks, etc.

4. Observation

Local road traffic and public transportation infrastructure conditions, and proposed sites were

observed to obtain an intuitive understanding of local conditions.

5. Questionnaire survey

253 copies of the questionnaire were distributed in 6 sampled villages/communities to learn local traffic conditions, traffic infrastructure, traffic safety and management, public space upgrading, public transportation system, and relevant needs and attitudes. Among the samples, 58.1% are females and 54.5% rural residents; those aged 41-50 years account for 31.2%; 69.6% of the samples have received junior high school or above education, 2.8% have received junior college or above education, and 30.5% have received primary school or below education.

6. Literature review

Local social, economic and demographic reports and bulletins, policies and regulations, and other information were collected from the county social security bureau, civil affairs bureau, women's federation, urban construction bureau, transport bureau, planning bureau, PMO, ethnic and religious affairs bureau, and sub-district offices.

1.5 Key Concerns of SA

This report describes the socioeconomic profile and the current situation of urbanization of the project area, and existing infrastructure issues; identifies primary stakeholders, and analyzes their needs and impacts; identifies the Project's positive and negative impacts, and social risks; analyzes women's development, the Project's impacts on women and their needs for the Project; identifies the Project's impacts on women and their needs for the Project; identifies the Project's impacts on ethnic minorities; analyzes how to involve stakeholders into the Project effective, and proposes a public participation plan; and incorporates relevant social factors into the project design, and proposes measures to avoid or reduce negative impacts.

The main social concerns of this SA are:

1. Traffic safety: local traffic safety awareness, traffic publicity and training, and effective measures for traffic safety after project completion;

2. Public participation: local residents' participation in the Project, potential issues, and relevant mechanisms and strategies, especially the participation of old people, women, the poor, etc.;

3. Social gender: participation of women in project design, construction and implementation, and programs that enable women to play an effective role in improving project sustainability; and

4. Poor population: participation of floating population and poor population, the Project's impacts on them, and ways that enable them to benefit from the Project.

Method	Duration	Range	Participants	Key topics
FGD	Oct. 23, 2014 – Jun. 10, 2015	21 FGDs in 20 villages/communities, including 7 with women	9 members of the task force; 128 residents, including 40 women, 45 old people, and 20 poor and disabled	1) Local public transportation conditions and public spaces to be upgraded; 2) attitudes to and needs for traffic infrastructure and safety improvement, and public space upgrading
Key informant interview	Oct. 23, 2014 – Jun. 10, 2015	Heads of county women's federation, ethnic and religious affairs bureau, civil affairs bureau, social security bureau, transport bureau, housing construction bureau, schools, sub-district offices, community committees	9 members of the task force; 50 officials from the PMO, agencies concerned and village committees	 Local demographic, economic, environmental and rural insurance conditions; impacts of traffic conditions on residents, existing issues, and suggestions on the Project; 3) conditions, needs and comments of women and the poor
In-depth interview	Oct. 23, 2014 – Jun. 10, 2015	Representatives of local residents	9 members of the task force; 40 men-times of representatives of residents in 20 villages/communities	1) Affected area of the Project; 2) attitudes to and needs for the Project; 3) the Project's impacts and potential risks
Observation	Oct. 23, 2014 – Jun. 10, 2015	20 affected villages/communities	9 members of the task force; 3 staff members of the PMO	1) Living conditions of local residents; 2) local road traffic and public transportation infrastructure conditions, and proposed sites
Questionnai re survey	Oct. 23, 2014 – Jun. 10, 2015	6 communities in Danxi and Dandong Sub-districts	9 members of the task force; 253 samples, including 147 females, accounting for	1) Basic information of local residents; 2) local traffic conditions, traffic infrastructure, traffic safety and management, public space

Table 1-1 Summary of SA Methods

			58.1%	upgrading, public transportation system, and
				relevant needs and attitudes
Litoroturo	Oct. 23,	/	9 members of the task force	Local social, economic and demographic
Literature	2014 – Jun.			reports and bulletins, policies and regulations,
review	10, 2015			and other information

2 Socioeconomic Profile of the Project Area

2.1 Administrative Divisions

Zhejiang Province, located in the southern part of the Yangtze River Delta, has a land area of 105,500 km² and a sea area of 260,000 km², and governs 11 cities and 90 county-level administrative divisions, including 34 urban districts, 21 county-level cities, 34 counties and an autonomous county.

Ningbo City, located on the southeast coast of China, has a land area of 9,816 km² and a sea area of 8,232.9 km², and governs 6 districts, two counties, 3 county-level cities, 7 towns, 11 Xiangs, 64 sub-district offices, 663 communities and 2,556 villages.

Xiangshan County, governed by Ningbo City, has a land area of 175 km² and a sea area of 5,350 km², and governs 3 sub-districts, 10 towns, 5 Xiangs, 12 communities, 43 settlements and 713 administrative villages.

Division	Sub-districts	Townships	Communities	Villages
China	7566	32929	\	\
Zhejiang Province	421	903	\	\
Ningbo City	64	88	663	2556
Xiangshan County	3	15	45	490

Table 2-1Administrative Divisions ((2013)
-------------------------------------	--------

Source: Statistical Yearbooks 2014 of China, Zhejiang Province, Ningbo City and Xiangshan County

2.2 Population

At the end of 2013, Zhejiang Province had a registered population of 48.2689 million, a year-on-year growth of 275,500 or 0.57%, including a female population of 21.3886 million, accounting for 44.31%; an urban population of 15.4541 million, accounting for 32.02%; and an elderly population (65+ years) of 5.639 million, accounting for 10.26%.

At the end of 2013, Ningbo City had a registered population 5.8015 million, including a female population of 2.9099 million, accounting for 50.16%; and an urban population of 2.1435 million, accounting for 36.95%.

At the end of 2013, Xiangshan County had a registered population 543,825, including a female population of 267,068, accounting for 49.1%; and an urban population of 115,245, accounting for 21.2%. Population birth rate was 11.38‰, death rate6.14‰, and natural growth rate 5.24‰. In 2013, the county's floating working population was 136,400.

Division	Population (0,000)	Gender (0,000)		Household registration (0,000)		Old people (0,000)	
Division		Females	Percent (%)	Urban population	Percent (%)	Aged 65+ years	Percent (%)
China	136072	66344	48.76	73111	53.73	13161	9.7
Zhejiang Province	4826.89	2138.86	44.31	1545.41	32.02	563.9	10.26
Ningbo City	580.15	290.99	50.2	214.35	36.9	/	/
Xiangshan County	54.3825	26.7068	49.1	11.5245	21.2	/	/
o o,							

Table 2-2 Population and Composition by Administrative Division (2013)

Source: Statistical Yearbooks 2014 of China, Zhejiang Province, Ningbo City and Xiangshan County

100					(2010)	
	Birt	h	Deat	th	Natural g	growth
Division	Population (0,000)	‰	Population (0,000)	‰	Population (0,000)	‰
China	1640	12.08	972	7.16	667.9	4.92
Zhejiang Province	54.9	10.01	29.9	5.45	25	4.56
Ningbo City	4.93	8.53	3.55	6.15	1.38	2.38
Xiangshan County	0.62	11.38	0.33	6.14	0.28	5.24

Table 2-3 Population Birth, Death and Natural Growth Rates (2013)

Source: Statistical Yearbooks 2014 of China, Zhejiang Province, Ningbo City and Xiangshan County

2.3 Ethnic Minorities

At the end of 2013, Xiangshan County had a minority population of 498, composed mainly of She and Miao people, accounting for 0.09% of registered population. Danxi Sub-district had a minority population of 72, accounting for 0.12% of registered population; Dandong Sub-district had a minority population of 10, accounting for 0.02% registered population. The minority residents in the two sub-districts are Manchurian and Hui people mainly, and are scattered.

Division	HHs	Population	Minority population	Percent (%)
Xiangshan County	186169	543825	498	0.09
Dandong Sub-district	١	60254	72	0.12
Danxi Sub-district	١	47133	10	0.02

Table 2- 4 Minority	/ Population	in Xiangshan	County	(2013)
---------------------	--------------	--------------	--------	--------

Source: Xiangshan County Ethnic and Religious Affairs Bureau

2.4 Social and Economic Development

In 2014, Zhejiang Province's GDP was 4.0154 trillion yuan, in which the added value of primary industries was 177.9 billion yuan, accounting for 4.4%, up 1.4%; that of secondary industries 1.9153 trillion yuan, accounting for 47.7%, up 7.1%; and that of tertiary industries 1.9222 trillion yuan, accounting for 47.9%, up 8.7%. Urban residents' per capita disposable income was 40,393 yuan and rural residents' per capita net income 19,373 yuan.

In 2014, Ningbo City's GDP was 760.251 billion yuan. The percentage of primary industries was lower than the national and provincial averages, while growth rate higher than the provincial average but lower than the national average; the percentage of secondary industries was higher than the national and provincial averages, while growth rate higher than the national and provincial averages, while growth rate higher than the national and provincial averages, while growth rate higher than the national and provincial averages, while growth rate higher than the national and provincial averages, averages; the percentage of tertiary industries was lower than the national and provincial averages, and growth rate lower than the national and provincial averages.

In 2014, the percentage and growth rate of primary industries in Xiangshan County were lower than the national, provincial and municipal averages, and rural residents' per capita net income higher than the national and provincial averages, but lower than the municipal average.

					()			
Division	GDP (00	Primary i (00 millio	ndustries on yuan)	Secondary (00 millic	industries on yuan)	Tertiary in (00 millio	dustries n yuan)	Ratio (%)
Division		Output	0/	Output	0/	Output	0/	
	yuan)	value	70	value	%	value	%	
China	636463	58332	9.2	271392	42.6	306739	48.2	4.1:7.3:8.1
Zhejiang Province	40154	1779	4.4	19153	47.8	19222	47.9	1.4:7.1:8.7
Ningbo City	7602.51	275.18	3.6	3935.57	51.8	3391.76	44.6	1.9:7.9:7.6
Xiangshan County	388.7	57.97	14.9	176.01	45.3	154.72	39.8	1.6:7.4:6.1

Table 2-4 GDP and Composition (2014)

Source: National Economic and Social Development Statistical Bulletins 2014 of China, Zhejiang Province, Ningbo City and Xiangshan County

Table 2-5 Disposable Income of Urban Residents and Net Income of Rural Residents (2014)

Division	Urban residents' per capita disposable income (yuan)	Rural residents' per capita net income (yuan)
China	28844	10489
Zhejiang Province	40393	10373
Ningbo City	44155	24283
Xiangshan County	40189	22146

Source: National Economic and Social Development Statistical Bulletins 2014 of China, Zhejiang Province, Ningbo City and Xiangshan County

2.5 Urbanization Level

In 2014, Zhejiang Province's urbanization rate was 64.87%, up 0.87%. 1.439 million children of migrant workers received compulsory education locally.

In 2014, Ningbo City's urbanization rate was 70.3%, up 0.5%. 275,800 children of migrant

workers received compulsory education locally.

In 2014, Xiangshan County's urbanization rate was 36%. 98% of children of migrant workers received compulsory education locally.

2.6 Tourism

In 2014, Zhejiang Province received 479 million men-times of domestic tourists, up 10.2%, with tourism income of 594.7 billion yuan, up 14.3%; and 9.31 million men-times of overseas tourists, up 7.5%, with tourism income of USD5.75 billion, up 6.7%.

In 2014, Ningbo City's tourism income was 106.81 billion yuan, 12%. The city received 68.746 million men-times of domestic tourists, up 10.4%; with tourism income of 102.03 billion yuan, up 12.8%, and 1.397 million men-times of overseas tourists, up 9.7%.

In 2014, Xiangshan County received 15.26 million men-times of tourists in total, up 19.2%, including 140,400 men-times of overseas tourists, up 6.4%, with tourism income of 14.5 billion yuan, up 20%.

	Tourism income	Tourists	received
Division	(00 million yuan)	Domestic (0,000 men-times)	Overseas (0,000 men-times)
Zhejiang Province	6300	46969	931
Ningbo City	1068.1	6874.6	139.7
Xiangshan County	145	1511.96	14.04

Table 2-6 Tourism Income and Visitors Received (2014)

Source: National Economic and Social Development Statistical Bulletins 2014 of Zhejiang Province, Ningbo City and Xiangshan County

2.7 Traffic

In 2013, Zhejiang Province's highway traffic mileage was 115,426km, up 1.7%, including Class-1 highways of 5,310km, Class-2 highways of 9,610km and Class-3 highways of 3,787km, freight volume 1.87885 billion tons, freight turnover 894.957 billion tons-kilometers, passenger volume 1.3679 billion men-times, and passenger turnover 102.51 billion men-kilometers. There were 14,230,747 civil vehicles and 29,260 buses.

In 2013, Ningbo City's highway traffic mileage was 10,891.66km, freight volume 354.09 million tons, freight turnover 223,071 billion tons-kilometers, passenger volume 247.93 million men-times, and passenger turnover 12.42765 billion men-kilometers. There were 1,420,578 civil vehicles and 7,149 buses.

In 2013, Xiangshan County's highway traffic mileage was 1,300.6km, freight volume 32.86 million tons, up 7.7%, freight turnover 27.07 billion tons-kilometers, down 2.5%.passenger volume 21.04 million men-times, down 9.7%, and passenger turnover 1.064 billion men-kilometers, down 10%. There were 61,825 civil vehicles and 154 buses.

3 Stakeholder Identification and Demand Analysis

3.1 Beneficiary Area

The direct beneficiary area of the Project is Danxi and Dandong Sub-districts, covering about 80km², with a beneficiary population of 172,725, including 121,099 urban residents and 51,626 rural residents. The indirect beneficiary area is the whole of Xiangshan County.

3.2 Stakeholder Identification

Stakeholders refer to individuals or groups that can affect or be affected by the realization of the project objectives. The Project's primary stakeholders as identified in the fieldwork include: 1) affected local residents, especially women, children, old people, the disabled and other vulnerable groups; 2) local industrial enterprises and stores; and 3) local educational institutions. Secondary stakeholders include: 1) the PMO, owner, design agency and other project agencies; and 2) government departments concerned.

1. Affected local residents

Affected local residents are primary stakeholders, including residents in affected villages or communities, and residents near bus stations.

After project completion, residents near roads will enjoy greater traffic safety and convenience, and reduced traffic times and costs. In addition, improved infrastructure will improve the living quality of old people, the disabled and women.

During construction, machinery operation and material transport will occupy roads, and noise, wastewater and slag produced will affect residents' physical health and living environment. However, the Project's advantages are greater than its disadvantages, and such adverse impacts will be temporary.

Therefore, affected local residents' main needs for the Project are: 1) daily traffic safety and convenience; 2) improved road infrastructure; and 3) improved public transportation convenience.

2. Local enterprises and stores

There are many small textile enterprises and large industrial enterprises in the project area. Convenient access to the urban area will reduce their transport costs and improve logistics speed greatly.

The Project will promote local business development and economic growth, thereby generating more job opportunities and increasing income.

During construction, roads will be occupied, and noise and dust will affect nearby stores' operations, thereby reducing their income temporarily or even resulting in business suspension. However, such losses are temporary.

Therefore, the main needs of local enterprises and stores for the Project are: 1) reducing transport costs and ensuring the timely supply of raw materials; 2) improving public spaces on commercial streets; 3) promoting local economic growth through commerce introduction.

3. Local educational institutions

Affected educational institutions are kindergartens, primary schools and high schools mainly. Roads near schools are narrow and out of repair, posing safety risks to children. Therefore, improving road and pavement quality and building supporting facilities will undoubtedly benefit children greatly.

Therefore, the main needs of local educational institutions for the Project are improving road and pavement quality, and building supporting facilities; improving public spaces and building infrastructure for safety assurance; and upgrading bus infrastructure near schools.

4. PMO, owner, design agency and other project agencies

The Xiangshan Project Leading Group and PMO have been established, responsible for coordinating relations among all agencies concerned, and directing and supervising project preparation and implementation. The implementing agencies of the Project are the Xiangshan County Transport Bureau, and Housing Construction Bureau. Their main need for the Project is to complete the Project as soon as possible through joint efforts.

5. Government departments concerned

Government departments related to project construction and resettlement also include the county development and reform bureau, land and resources bureau, land acquisition and house demolition management office, etc. The Project will also involve village/community committees.

Therefore, their main needs for the Project are to complete the Project as soon as possible through joint efforts, improve the traffic network of Xiangshan County, promote local economic development, and improve residents' living standard.

3.3 Demand Analysis

Local residents' needs for the Project are mainly traffic infrastructure and pavement quality improvement, public space and public transportation infrastructure upgrading, etc.

1. Traffic infrastructure

The existing local traffic infrastructure has the following problems:

i) The road network of the old urban area is unsound and has limited capacity, giving rise to traffic congestion in peak hours;

ii) Pavements are seriously damaged, such as the segments of Huancheng West Road along Luxialin and Zhushuixi Villages.

iii) Traffic infrastructure is irrational or insufficient, such as the absence of traffic signals or crosswalks at some road junctions, and irrationally set timing of traffic signals.

iv) Residents have weak traffic safety awareness, and their traffic safety behavior is bad, such as running red lights.

11.6% of the respondents choose "poor road conditions", 30.9% choose "pavement damage by overloaded trucks", 47% choose "traffic congestion", 42.2% choose "difficulty in taking a bus", 19.7% choose "lack of supervision and management", 16.1% choose "safety issues", 3.2% choose "bad landscaping", and 5.1% choose "other" (see Table 3-1).

Traffic problem	Male	Female	Total
Poor road conditions	16.5	8.2	11.6
Pavement damage by overloaded trucks	27.2	33.6	30.9
Traffic congestion	49.5	45.2	47.0
Difficulty in taking a bus	42.7	41.8	42.2
Lack of supervision and management	20.4	19.2	19.7
Safety issues	12.6	18.5	16.1
Bad landscaping	3.9	2.7	3.2
Other	8.7	2.7	5.2

Table 3-1 Perceived Traffic Problems (%)

Source: SA survey

Villager interview in Hexi Village, Dandong Sub-district (male, 52 years)

Road conditions are dissatisfactory. Some roads are narrow, and would be congested during peak hours. The road network is unsound, so access to hospitals, schools, markets, etc. is difficult. Road safety needs improvement, especially at branch roads and road junctions without traffic signals.



Table 3-1 Road junctions near the Flower Market

1) Urban traffic conditions

7.9% of the respondents choose "very serious", 29.2% choose "serious", 49% choose "neither, nor", 12.3% choose "Not serious", and 1.6% choose "not serious at all", indicating that near half of residents think existing urban traffic problems are serious.

Traffic problems	Male	Female	Total
Very serious	11.3	5.4	7.9
Serious	26.4	31.3	29.2
Neither, nor	42.5	53.7	49.0
Not serious	16.0	9.5	12.3
Not serious at all	3.8	\	1.6

Table 3-2 Evaluation of Local Traffic Problems (%)

Source: SA survey

2) Evaluation of local traffic infrastructure

Only 2.4% of the respondents are "very satisfied" with the traffic infrastructure of Xiangshan County, 29.6% "satisfied", 40.3% "neither satisfied nor dissatisfied", 25.3% "dissatisfied", and 2.4% "very dissatisfied" (see Table 3-3).

		ic minastructure (70)	
Attitude to traffic infrastructure	Male	Female	Total
Very satisfied	3.8	1.4	2.4
Satisfied	32.1	27.9	29.6
Neither, nor	39.6	40.8	40.3
Dissatisfied	20.8	28.6	25.3
Very dissatisfied	3.8	1.4	2.4

Table 3-3 Evaluation of Local Traffic Infrastructure (%)

Source: SA survey

FGD in Yaolin Community, Danxi Sub-district

The interval of the traffic signals at the junction of Laixun and Xiangshangang Roads is too short for pedestrians. Roads near schools are very congested. All roads in the old urban area are narrow, and some roads are one-way. Streetlamps on Xiangshangang Road are too dark, posing safety risks at night.

3) Need for improved traffic infrastructure

The top 3 infrastructure items for which improvement is "very necessary" are traffic safety signs, crosswalks and drainage facilities, as chosen by 47.4%, 34.8% and 33.2% of the respondents respectively. Generally, residents have strong demand for the improvement of all infrastructure.

Traffic infrastructure	Very necessary	Necessary	Neither, nor	Unnecessary	Very unnecessary
Streetlamps	29.2	41.1	21.3	5.1	3.2
Crosswalks	34.8	45.8	11.5	4.7	3.2
Deceleration strip	28.9	49.4	13.4	5.5	2.8
Alley trees	18.6	45.8	23.3	10.3	2.0
Irrigation facilities	12.3	30.4	42.7	12.3	2.4
Drainage facilities	33.2	32.4	28.5	4.3	1.6
Traffic safety signs	47.4	37.2	11.5	2.4	1.6

Table 3-4 Needs for Improvement of Local Traffic Infrastructure (%)

Source: SA survey

2. Pavement quality improvement

The pavement of some roads is seriously damaged. For example, Huancheng West Road has a narrow stone pavement, making it inconvenient for heavy-duty trucks of nearby plants to drive. Local residents expect to improve pavement quality and broaden roads for traffic convenience.



Figure 3-2 Current Situation of Huancheng West Road

Resident interview in Yaolin Community, Danxi Sub-district (male, 60 years) Roads are maintained and improved every year, but are still not wide enough for increasing traffic. The road system in the county town is unsound, and many roads have been crushed by heavy traffic.

Only 3.2% of the respondents are "very satisfied" with road maintenance, 27.7% "satisfied", 49% "neither satisfied nor dissatisfied", 19.4% "dissatisfied", and 0.8% "very dissatisfied". It can be seen that only about 1/5 of residents are dissatisfied with road maintenance.

		()	
Road maintenance	Male	Female	Total
Very satisfied	4.7	2.0	3.2
Satisfied	36.8	21.1	27.7
Neither, nor	43.4	53.1	49.0
Dissatisfied	14.2	23.1	19.4
Very dissatisfied	0.9	0.7	0.8

Table 3-3 Lyaluation of Road Maintenance (70

Source: SA survey

3. Traffic safety

On key roads in the county town, automatic parking systems are available, controlling illegal parking to some extent, and traffic police and volunteers are on duty to alleviate traffic congestion. However, traffic congestion is still inevitable due to narrow roads and heavy vehicle traffic. In addition, some road junctions have no traffic signals or traffic signals are irrationally set, posing great safety risks to pedestrians.

1) Evaluation of traffic safety

Only 0.4% of the respondents are "very satisfied" with traffic safety, 27.3% "satisfied", 53.8% "neither satisfied nor dissatisfied", 16.6% "dissatisfied", and 2.0% "very dissatisfied" (see Table 3-6).

Evaluation of traffic safety	Male	Female	Total			
Very satisfied	0.9	\	0.4			
Satisfied	31.1	24.5	27.3			
Neither, nor	49.1	57.1	53.8			
Dissatisfied	15.1	17.7	16.6			
Very dissatisfied	3.8	0.7	2.0			

Table 3-6 Evaluation of Local Traffic Safety (%)

Source: SA survey

2) Evaluation of traffic safety problems

The respondents generally think that local traffic safety problems are serious. The top 3 "very serious" traffic safety problems are driving too fast, running red lights and disorderly vehicle traffic at road junctions, as chosen by 15%, 14.6% and 14.6% of the respondents. Only nearly 1/5 of the

respondents think existing traffic safety problems are not serious.

Traffic safety problem	Very serious	Serious	Neither, nor	Not serious	Not serious at all
Weak safety awareness	9.1	43.1	35.6	11.9	0.4
Lack of traffic knowledge	7.5	46.6	35.2	9.1	1.6
Running red lights	14.6	35.2	34.0	14.6	1.6
Disorderly vehicle traffic at road junctions	14.6	38.3	30.4	13.0	3.6
Vehicles not driving on designated lanes	11.9	38.7	31.6	15.8	2.0
Driving too fast	15.0	41.5	32.0	9.9	1.6
Mixed passenger and vehicle traffic	12.3	40.3	34.0	11.5	2.0
Road occupation by stalls	9.9	22.9	47.8	18.2	1.2
Inadequate regulation	8.3	24.5	53.8	11.9	1.6

Table 3-7 Evaluation of Local Traffic Safety Problems (%)

Source: SA survey

GD in Shangyu Village, Dandong Sub-district

Roads should be broadened and traffic publicity strengthened to reduce traffic congestion and accidents, because local residents have weak safety awareness, especially old people and children.

3) Need for traffic safety improvement

Among traffic safety improvement measures, 56.6% of the respondents choose "strengthening traffic safety education", 25.5% choose "establishing traffic safety supervision teams", 33.9% choose "strengthening traffic management", 19.1% choose "setting up non-motor vehicle lanes", 69.7% choose "improving road infrastructure", and 2% choose "other" (see Table 3-8).

•		,	
Traffic safety improvement measure	Male	Female	Total
Strengthening traffic safety education	58.7	55.1	56.6
Establishing traffic safety supervision teams	26.0	25.2	25.5
Strengthening traffic management	28.8	37.4	33.9
Setting up non-motor vehicle lanes	17.3	20.4	19.1
Improving road infrastructure	65.4	72.8	69.7
Other measures	1.9	2.0	2.0

Table 3-8 Needs for Improvement of Local Traffic Safety (%)

Source: SA survey

4. Public space upgrading

Wenchang Street and Tian'an Road are narrow, disorderly and out of repair. Dannan Road (experimental primary school) has no safe crossing facility and is seriously occupied.

1) Need for improved commercial spaces

Old Wenchang Street has many problems, such as seriously damaged pavement, narrowness, road occupation by stalls, disorderly vehicle parking, and appearance affected by self-built canopies. Storekeepers expect regulated parking, improved pavement quality, and unified management of stalls and stores.

Interview with a storekeeper on Wenchang Street (female, 60 years)

Disorderly stalls affect my business, and passenger and vehicle traffic. Electric bicycles running on this narrow road are likely to collide against people, especially children coming with their parents to buy children's clothing. Self-built canopies intended to protect commodities affect street appearance. Motor vehicles are parked disorderly on the street.



Figure 3-3 Entrance of Wenchang Street



Figure 3-4 Shops on Wenchang Street

2) Need for space improvement of Dannan Road



Figure 3-5 Gate of Nandan Road Experimental Primary School

There is only a small car park around the north gate of Xiangshan Experimental Primary School on Dannan Road, so that some parents have to park their cars on roads when school is over. The road is also occupied by stalls. There is neither traffic signal nor deceleration strip at the crosswalk, posing safety risks to pedestrians. The respondents suggest that the green belts be reduced to make the sidewalks wider and the layout of the car park be improved.

The south gate of the experimental primary school is located on Fengrao Road, which is often occupied by private cars, especially when students go to and from school. The respondents suggest that the 2-meter-wide open spaces between the road and the roadside enclosing walls be utilized to separate motor vehicles, non-motor vehicles and pedestrians, thereby improving traffic convenience and safety.



Figure 3-6 South Gate of Fengrao Road Experimental Primary School

Interview with a parent of a student of experimental primary school (male, 35 years) In the morning and evening, a traffic warden is at the gate to direct traffic. Traffic signals and warning signs should be provided here for the sake of safety. There is a car park nearby, but it should be expanded.

5. Need for improved public transportation infrastructure

The overall service level of the public transportation system of Xiangshan County is good, but there are still some problems:

- i) Bus stops are shabby, and have no canopy or seat.
- ii) Transfer is usually needed for those taking a bus to hospitals, schools, etc.
- iii) Buses are crowded and have limited seats.
- iv) Bus routes are irrationally designed, and running frequency is low.

Among local bus problems, 30.7% of the respondents choose "irrational routing", 16.3% choose "irrational bus allocation", 2.8% choose "irrational fares", 29.9% choose "irrational bus network", 30.7% choose "bad connection for transfer", 21.9% choose "insufficient station and terminal facilities", 8% choose "weak awareness of bus priority", and 4% choose other (see Table 3-9).

Bus problem	Male	Female	Total		
Irrational routing	35.6	27.2	30.7		
Irrational bus allocation	18.3	15.0	16.3		
Irrational fares	3.8	2.0	2.8		
Irrational bus network	23.1	34.7	29.9		
Bad connection for transfer	20.2	38.1	30.7		
Insufficient station and terminal facilities	25.0	19.7	21.9		
weak awareness of bus priority	9.6	6.8	8.0		
Other	4.8	3.4	4.0		

Table 3-9 Evaluation of Local Bus Problems (%)

Source: SA survey

FGD in Happy Garden, Dandong Sub-district

Buses are too small and limited seats, though quite clean. Bus intervals are too long for everyday commuters. A bus from Shipu to Juexi Sub-district is preferred, because we have to make a transfer at East Coach Station. Bus stops are distant from communities and have no seat, which is very inconvenient for old people.

1) Evaluation of bus service

3.6% of the respondents think local bus service is "very convenient", 24.1% choose

"convenient", 39.5% choose "neither, nor", 29.2% choose "inconvenient", and 3.6% choose "very inconvenient". It can be seen that about 1/3 of the respondents think bus service is inconvenient.

Bus service	Male	Female	Total
Very convenient	8.5	\	3.6
Convenient	21.7	25.9	24.1
Neither, nor	31.1	45.6	39.5
Inconvenient	33.0	26.5	29.2
Very inconvenient	5.7	2.0	3.6
0.1			

Table 3-10 Evaluation of Bus Service (%)

Source: SA survey

Villager interview in Zhangshuxia Village, Danxi Sub-district (female, 49 years) I'm very dissatisfied with the bus system. There is only one route that runs through villages. Intervals of bus stops are too large, waiting times are too long and buses are very crowded.

2) Traffic modes of residents

i) The top 3 traffic modes are electric bicycle, private car and bus, as chosen by 43.1%, 19.4% and 14.6% of the respondents. Bus is chosen most by those having received primary school and junior high school education (see Table 3-11).

No.1 traffic mode	Illiterate	Primary school	Junior high school	Senior high or secondary technical school	Above junior college	Total
Walk	١	14.9	14.0	7.3	14.3	12.3
Bicycle	\	4.5	١	3.6	14.3	2.4
Bus	40.0	20.9	12.3	9.1	\	14.6
Taxi	\	\	2.6	\	\	1.2
Electric bicycle	60.0	53.7	41.2	36.4	\	43.1
Motorcycle	١	1.5	7.9	10.9	\	6.3
Private car	\	4.5	20.2	32.7	71.4	19.4
Shuttle bus	\	\	1.8	\	\	0.8

Table 3-11 Traffic Modes of Residents by Educational Level (%)

Source: SA survey

ii) 31.3% and 21.1% of the respondents having received primary school and junior high school education take a bus at least once a day.

Frequency	Illiterate	Primary school	Junior high school	Senior high or secondary technical school	Above junior college	Total
At least once a day	30.0	31.3	21.1	14.5	14.3	22.5
Once every 2-3 days	10.0	9.0	11.4	5.5	14.3	9.5
Once a week	60.0	14.9	21.9	25.5	١	21.7
Once every 2 weeks	\	7.5	14.0	12.7	14.3	11.5
Once a month	\	25.4	19.3	21.8	14.3	20.6
Other	\	11.9	12.3	20.0	42.9	14.2

Table 3-12 Bus Taking Frequency of Residents by Educational Level (%)

Source: SA survey

3) Evaluation of deficiencies in bus stops

Among deficiencies in bus stops, 43.1% of the respondents choose "too large spacing", 8.9% choose "too small spacing", 48.8% choose "insufficient platform", 25.4% choose "insufficient facilities", and 10.9% choose "inconvenient position" (see Table 3-13).



Figure 3-7 Bus Stop near Happy Garden Community

Deficiency	Male	Female	Total
Too large spacing	43.7	42.8	43.1
Too small spacing	11.7	6.9	8.9
Insufficient platform	41.7	53.8	48.8
Insufficient facilities	27.2	24.1	25.4
Inconvenient position	10.7	11.0	10.9

Table 3-13 Evaluation of Deficiencies in Bus Stops (%)

Source: SA survey

4) Evaluation of deficiencies in bus interiors



Figure 3-8 Bus Interiors

Among deficiencies in bus interiors, 28.5% of the respondents choose "too few seats for the weak", 68.7% choose "insufficient seats", 3.6% choose "unclear stop reporting", 6.8% choose "no air conditioning", 20.1% choose "inconvenient access", 1.6% choose "inconvenient card swiping", 2% choose "unstable parking", and 2% choose other.

			()
Deficiency	Male	Female	Total
Too few seats for the weak	28.2	28.8	28.5
Insufficient seats	70.9	67.1	68.7
Unclear stop reporting	2.9	4.1	3.6
No air conditioning	6.8	6.8	6.8
Inconvenient access	20.4	19.9	20.1
Inconvenient card swiping	2.9	0.7	1.6
Unstable parking	3.9	0.7	2.0
Other	2.9	1.4	2.0

			_		
Table 3-14	Evaluation of	Deficiencies i	in Rus	Interiors	(%)
				Interioro -	(/0 /

Source: SA survey

4 Local Poverty

4.1 MLS Population

At the end of 2014, Zhejiang Province's MLS population was 605,000, including 64,000 urban residents and 541,000 rural residents. The average urban and rural MLS standards are 587 yuan and 487 yuan per capita per month respectively. At the end of 2014, Ningbo City's MLS population was 51,300, and the average urban MLS standard was 660 yuan per capita per month. In 2014, the MLS population of Xiangshan County was 9,377, including a rural MLS population of 8,970, the average urban and rural MLS standard was 540 yuan per capita per month, and urban and rural MLS coverage was 100%. The MLS populations of Dandong and Danxi Sub-districts were 170 and 260 respectively.

Division	Rural MLS population (0,000)	Rural MLS standard (yuan/person-month)	Urban MLS population (0,000)	Urban MLS standard (yuan/person-month)
China	5207.2	223	1877	411
Zhejiang Province	54.1	487	6.4	587
Ningbo City	١	660	١	660
Xiangshan County	0.897	540	0.0407	540
Dandong Sub-district	١	540	١	540
Danxi Sub-district	١	540	١	540

Table 4-1 MLS Statistics by Administrative Division

Source: Social Service Development Statistical Bulletin 2014 of China; National Economic and Social Development Statistical Bulletins 2014 of Zhejiang Province, Ningbo City and Xiangshan County; statistics of the Xiangshan County Civil Affairs Bureau

4.2 Floating Population

4.2.1 Floating Working Population

1. Statistics of floating working population

At the end of 2013, Zhejiang Province's floating working population was 6.7111 million and Ningbo City's floating working population 1.8016 million. At the end of 2013, the floating population of Xiangshan County was 136,400, that of Dandong Sub-district 20,400, and that of Danxi Sub-district 43,100.

Division	Floating population (0,000)	Floating population with temporary residence permit (0,000)
Xiangshan County	13.64	/
Dandong Sub-district	2.04	1.09
Danxi Sub-district	4.31	2.13
Juexi Sub-district	2.02	1.43

Table 4-2 Floating Population of Xiangshan County (2013)

Source: county migrant working office, public security bureau

2. Industrial parks in Xiangshan County and employed population

1) Industrial Demonstration Park: with 17,500 people and over 150 enterprises, focusing on electromechanics (over 30%), textile, automobile parts, etc

2) Dongchen New Zone: planned to accommodate 30,000 people, focusing on commerce, industry, automobile trading, enterprise headquarters, R&D, etc., with 20 enterprises and 14 4S stores

3) Coastal Industrial Park: planned to accommodate 30,000 people, focusing on electromechanics and electric appliances, with 90 enterprises

ectromechanics and electric appliances, with 90 enterprises

4) Renyitu area: with a planned area of 3.5 km², planned to accommodate 23,000 people

Table 4-3 Floating Working Population in Industrial Parks

	Name	Nature	Beginning	Planned	Current employed	Remarks
--	------	--------	-----------	---------	------------------	---------

		year of construction	population (0,000)	population (0,000)	
Industrial Demonstration Park	Electromechanics (over 30%), textile, automobile parts, etc	1993	1.75	1.75	Completed
Dongchen New Zone	Commerce, industry, automobile trading, enterprise headquarters, R&D, etc.	2003	3	1	Completed by 1/3
Coastal Industrial Park	Electromechanics and electric appliances	2005	3	1.5	Completed
Renyitu area	Under planning	2014	2.3	/	Under construction
Subtotal	/	/	10.05	4.25	

Source: key informant interview

3. Impacts of the Project on industrial parks

1) Residence and traffic of employed population

Forefront workers are mostly floating population, and also include a considerable number of local farmers, including women. Management jobs are mostly done by local people. About 5% of workers live in dormitories. This means that about 95% of workers commute every day by motorcycle, private car and bus mainly.

2) Cargo transport: All goods are transported by land, and traffic pressure near the industrial parks is heavy.

Project impacts: 1) The road network should be improved to relieve traffic pressure; 2) Traffic safety should be enhanced to reduce the incidence of traffic accidents; 3) Logistical and time costs should be reduced.

4.2.2 Population Inflow

At the end of 2014, Dandong Sub-district's registered population was 61,615, resident population 92,615 and population inflow 31,000. Jinqiu Community had the largest population inflow.

O a martin i ta	Registered	Resident	Floating	Percent of floating	Poor	Percent of poor
Community	population	population	population	population to resident	floating	population to floating
	p op anation	p op anation	p op anadion	population (%)	population	population (%)
Dongjie Community	2399	5430	3031	56	1212	40
Gongyuan Community	3101	5676	2575	45	979	38
Jinqiu Community	4117	9985	5868	59	1819	31
Danfeng Community	7474	11300	3826	34	1607	42
Xinhua Community	3449	5392	1943	36	622	32
Wenfeng Community	5168	5501	333	6	107	32
Tashan Community	7193	10156	2963	29	1037	35
Meiyuan Community	2999	5100	2101	41	882	42
Danhe Community	2588	6874	4286	62	1800	42
Zhuangmujing Village	1131	1131	0	0	0	0
Xiabanhe Village	1195	1797	602	34	277	46
Meixi Village	1768	2093	325	16	163	50
Houshan Village	1743	2022	279	14	145	52
Shangjin Village	486	486	0	0	0	0
Aoli Village	1116	1050	-66	-6	0	0
Chengdong Village	660	660	0	0	0	0
Dongmenwai Village	1119	1119	0	0	0	0
Tianyangli Village	712	1012	300	30	156	52
Lujia Village	736	640	-96	-15	0	0
Qichun Village	343	490	147	30	68	46
Daqitou Village	1445	1445	0	0	0	0
Hedong Village	862	1439	577	40	242	42

Table 4-4 Floating Population of Dandong Sub-district and Poverty

Houyang Village	1038	2338	1300	56	598	46
Qiaotoulin Village	992	1392	400	29	172	43
Qiaotouhu Village	681	673	-8	-1	0	0
Jiangjia Village	577	572	-5	-1	0	0
Xilin Village	540	523	-17	-3	0	0
Shangyu Village	1394	1412	18	1	5	30
Xiayu Village	1112	1193	81	7	26	32
Chikan Village	603	580	-23	-4	0	0
Zhaimei Village	595	535	-60	-11	0	0
Donghuan Village	583	701	118	17	52	44
Xingsheng Village	597	735	138	19	59	43
Chengxin Village	412	412	0	0	0	0
Nanmen Village	687	751	64	9	27	42
Total	61615	92615	31000	33	12055	39

Source: The registered and resident population figures are supplied by the Dandong Sub-district Office; floating population is the difference between registered and resident populations. The percent of poor population to floating population is based on the Bank's relatively poverty line (below 40% of per capita income), namely 7,240 yuan. **Note**: Population without a temporary residence permit is not included here. This figure differs from that published by the migrant working office.

At the end of 2014, Danxi Sub-district's registered population was 49,570, resident population 80,110 and population inflow 30,540. Yueyin Community had the largest population inflow.

Community	Registered population	Resident population	Floating population	Percent of floating population to resident population (%)	Poor floating population	Percent of poor population to floating population (%)
Xinjian Community	2341	3900	1559	40	655	42
Beilu Community	3518	7000	3482	50	1776	51
Wenchang Community	4886	9987	5101	51	2193	43
Penglai Community	5404	11500	6096	53	2865	47
Baihe Community	1298	1298	0	0	0	
Yaolin Community	4394	12000	7606	63	4259	56
Yueyin Community	3304	10000	6696	67		53
Yangjia Village	903	903	0	0	0	0
Hengqiangnong Village	560	560	0	0	0	0
Hengtang'ou Village	261	261	0	0	3549	0
Xiaohetou Village	556	556	0	0	0	0
Linghetou Village	478	478	0	0	0	0
Shangjietou Village	723	723	0	0	0	0
Zhangshuxia Village	537	537	0	0	0	0
Liusheng Village	978	978	0	0	0	0
Xiaoting Village	730	730	0	0	0	0
Xiaodongyang Village	274	274	0	0	0	0
Yangxin Village	1546	1546	0	0	0	0
Hanjia Village	346	346	0	0	0	0
Choujiashan Village	1432	1432	0	0	0	0
Nansha Village	626	626	0	0	0	0
Jiuqing Village	2338	2338	0	0	0	0
Beimen Village	715	715	0	0	0	0
Ximen Village	948	948	0	0	0	0
Yangpeng'ao Village	392	392	0	0	0	0
Fangjingtou Village	1182	1182	0	0	0	0
Sanchalu Village	494	494	0	0	0	0
Yangtiantou Village	805	805	0	0	0	0
Wufeng Village	917	917	0	0	0	0

Table 4-5 Floating Population of Danxi Sub-district and Poverty

Xigang Village	677	677	0	0	0	0
Xinqitou Village	632	632	0	0	0	0
Luxialin Village	704	704	0	0	0	0
Baishi Village	1462	1462	0	0	0	0
Zhushuixi Village	712	712	0	0	0	0
Shangwu Village	768	768	0	0	0	0
Dongheqi Village	1729	1729	0	0	0	0
Total	49570	80110	30540	38	0	0

Source: The registered and resident population figures are supplied by the Danxi Sub-district Office; floating population is the difference between registered and resident populations. The percent of poor population to floating population is based on the Bank's relatively poverty line (below 40% of per capita income), namely 7,240 yuan.

Note: Population without a temporary residence permit is not included here. This figure differs from that published by the migrant working office.

4.3 Local Poor Population

Xiangshan County ranked 99th among the top 100 counties of China in 20014. However, its internal economic development is highly unbalanced. According to the Bank's approach to determine the "bottom 40%" in China, the poverty line of Xiangshan County is per capita income of 7,240 yuan. This has been used to estimate the poor population of each village/community.¹

At the end of 2014, Dandong Sub-district's poor population was 21,735, accounting for 35% of registered population. Happy Garden Community has the highest proportion of poor population because it is a community of low-rent and affordable housing. See Table 4-6 and Figure 4-1.

	Desistent	During -	
Community	Registered	Poor	Percent of poor population to gross
	population	population	population (%)
Dongjie Community	2399	480	20
Gongyuan Community	3101	558	18
Jinqiu Community	4117	453	11
Danfeng Community	7474	1271	17
Xinhua Community	3449	690	20
Wenfeng Community	5168	1034	20
Tashan Community	7193	1439	20
Meiyuan Community	2999	900	30
Happy Garden Community	7140	5712	80
Danhe Community	2588	466	18
Zhuangmujing Village	1131	452	40
Xiabanhe Village	1195	430	36
Meixi Village	1768	707	40
Houshan Village	1743	523	30
Shangjin Village	486	146	30
Aoli Village	1116	391	35
Chengdong Village	660	198	30
Dongmenwai Village	1119	224	20
Tianyangli Village	712	320	45
Lujia Village	736	250	34
Qichun Village	343	123	36
Daqitou Village	1445	578	40
Hedong Village	862	405	47
Houyang Village	1038	374	36
Qiaotoulin Village	992	476	48
Qiaotouhu Village	681	204	30
Jiangjia Village	577	237	41
Xilin Village	540	221	41
Shangyu Village	1394	655	47

Table 4-6 Poor Population of Dandong Sub-district

¹It should be noted that the estimate here is not an actual statistic, but based on local data and fieldwork.

Xiayu Village	1112	467	42
Chikan Village	603	253	42
Zhaimei Village	595	250	42
Donghuan Village	583	251	43
Xingsheng Village	597	179	30
Chengxin Village	412	144	35
Nanmen Village	687	275	40
Total	61615	21735	35

Note: *X*The county's poverty line is the Bank's relatively poverty line (below 40% of per capita income), namely 7,240 yuan. ▼The Happy Garden community is governed by Meiyuan Community.



Figure 4-1 Distribution of Poor Population in Registered Population in Dandong and Danxi Sub-districts

At the end of 2014, Danxi Sub-district's poor population was 14,636, accounting for 30% of registered population. See Table 4-7 and Figure 4-1.

Community	Registered population	Poor population [*]	Percent of poor population to gross population (%)
Xinjian Community	2341	468	20
Beilu Community	3518	598	17
Wenchang Community	4886	537	11
Penglai Community	5404	648	12
Baihe Community	1298	234	18
Yaolin Community	4394	483	11
Yueyin Community	3304	396	12
Yangjia Village	903	280	31
Henggiangnong Village	560	179	32

Table 4-7 Poor Population of Danxi Sub-district

Hengtang'ou Village	261	94	36
Xiaohetou Village	556	234	42
Linghetou Village	478	215	45
Shangjietou Village	723	362	50
Zhangshuxia Village	537	161	30
Liusheng Village	978	469	48
Xiaoting Village	730	372	51
Xiaodongyang Village	274	137	50
Yangxin Village	1546	835	54
Hanjia Village	346	145	42
Choujiashan Village	1432	831	58
Nansha Village	626	332	53
Jiuqing Village	2338	959	41
Beimen Village	715	272	38
Ximen Village	948	398	42
Yangpeng'ao Village	392	220	56
Fangjingtou Village	1182	615	52
Sanchalu Village	494	272	55
Yangtiantou Village	805	427	53
Wufeng Village	917	495	54
Xigang Village	677	217	32
Xinqitou Village	632	253	40
Luxialin Village	704	268	38
Baishi Village	1462	424	29
Zhushuixi Village	712	356	50
Shangwu Village	768	415	54
Dongheqi Village	1729	1037	60
Total	49570	14636	30

Note: %The county's poverty line is the Bank's relatively poverty line (below 40% of per capita income), namely 7,240 yuan.



Figure 4-2 Distribution of Poor Population in Floating Population in Dandong and Danxi Sub-districts

5 Social Impact Analysis

5.1 Urban Livability Component

5.1.1 Positive Impacts

1. Relieving traffic pressure

Current, traffic in the urban center of Xiangshan County is mainly on Xiangshangang Road, Xinfeng Road, Tian'an Road, etc., and the morning and evening peak times are very busy, while traffic is quite smooth in the remaining part.

It is learned that the morning peak time of motor vehicles in the Xiangshan urban area is 7:45-8:45, where hourly traffic accounts for 11.0% of 12-hour traffic (7:00-19:00); and the evening peak time is 16:30-17:30, where hourly traffic accounts for 10.9% of 12-hour traffic (7:00-19:00). The morning peak time of non-motor vehicles is 7:00-8:00 and the evening peak time 16:30-7:30. This shows that Xiangshan County has a long traffic peak time and is faced with serious traffic congestion.

The top 3 needs for traffic improvement of local residents are "developing the public transportation system", "constructing new roads and improving the traffic network", and "broadening urban roads", as chosen by 42.2%, 37.3% and 34.5% of the respondents. The Project will relieve local traffic congestion, shorten traffic times and improve road quality, thereby meeting these needs effectively.

Need for traffic improvement	Male	Female	Total
Broadening urban roads	35.9	33.6	34.5
Constructing new roads and improving the traffic network	54.4	25.3	37.3
Developing the public transportation system	37.9	45.2	42.2
Strengthening supervision and management	20.4	15.1	17.3
Improving road quality	17.5	20.5	19.3
Other	4.9	0.7	2.4

Table 5-1	Needs	for	Traffic	Improvement	(%)
-----------	-------	-----	---------	-------------	-----

Source: SA survey

Villager interview in Shangyu Village, Dandong Sub-district (male, 55 years) It is inconvenient to go to town by bus or taxi. Urban roads are narrow and likely to be congested. It is also inconvenient to drive a car there, because parking spaces are limited.

2. Improving the urban traffic network

Currently, the Xiangshan urban area has a total traffic mileage of 77.3km, with density of 4.79km/km², but the density of branch roads of 1.22km/km² is much lower than the standard value of 3-5km/km². The existing traffic network is insufficient for the already densely populated old urban area.

37.3% of the respondents think it necessary to construct new roads and improve the traffic network (see Table 5-1). The Project will ensure rational road density, shorten traffic times, improve urban land utilization, and relieve congestion.

3. Improving road safety and accessibility

Only 6.3% of the respondents think it "very convenient" to go to public places like hospitals and schools, 23.3% choose "convenient", 37.5% choose "neither, nor", 28.9% choose "inconvenient", and 4% choose "very inconvenient". It can be seen that only 1/3 of the respondents think it convenient to go to public places (see Table 5-2).

Convenience	Male	Female	Total
Very convenient	9.4	4.1	6.3
Convenient	29.2	19.0	23.3
Neither, nor	29.2	43.5	37.5

Table 5-2 Evaluation of Accessibility	to Public Facilities (%)
---------------------------------------	------------------------	----

Inconvenient	26.4	30.6	28.9
Very inconvenient	5.7	2.7	4.0

Resident interview in Shangyu Village, Dandong Sub-district (male, 42 years)

It is very inconvenient to shop or see a doctor in town. Detouring is inevitable. Many old rural residents don't know how to cross the road in town.

4. Improving the urban commercial environment and public facilities

Wenchang Street has many problems, such as seriously damaged pavement, narrowness, road occupation by stalls, disorderly vehicle parking, and appearance affected by self-built canopies. Tian'an and Dannan Roads are also affected by parked vehicles and stalls. There is neither traffic signal nor deceleration strip to ensure the safety of pedestrians.

The Project will provide sidewalks, non-motor vehicle lanes, car parks, street furniture and green spaces, improve street appearance, and ensure the safety of road crossing.

Interview with the headmaster of the experimental primary school (male, 55 years) Traffic around the north gate is relatively good, because there is a car park there. However, when most parents drive private cars on rainy days, this place would be very congested. The green belts on Dannan Road should be narrowed and the sidewalks broadened.

Storekeeper of a grocery on Wenchang Street (female, 42 years)

There are parking spaces indicated by white lines on the street, but vehicles are parked disorderly, because no one is in charge here. A guardrail is provided in the center to park bicycles and electric bicycles only, but some cars are also parked here.

5. Developing the local economy

The Project will further promote urban economic development, attract investment into commercial centers, rationalize urban spatial layout, improve traffic management, and create a comfortable living and working environment.

6. Promoting the employment of local residents, especially vulnerable groups, and improving residents' living quality

Temporary and permanent jobs will be generated by the Project, including cleaning, painting and handling jobs at the construction stage, and cleaning and management jobs at the operation stage. Through consultation with the PMO, most of these jobs will be first made available to local women, poor population and other vulnerable groups. By improving public infrastructure, the Project will offer more shopping and leisure options to nearby residents, thereby improving their living comfort and convenience.

Among No.1 positive impacts, 45.8% of the respondents choose "improving the urban environment", 7.9% choose "offering public leisure spaces, and 1.6% choose "offering job opportunities" (see Table 5-3).

	•	•	• • • • •	
No.1 positive impact	Improving the urban environment	Offering public leisure spaces	Offering job opportunities	Don't know
Civil servant	1.7	\	\	/
Institution staff	3.4	\	50.0	\
Enterprise employee	6.0	20.0	\	\
Individual operator	12.1	10.0	\	\
Freelancer	16.4	15.0	25.0	\
Unemployed	10.3	\	١	١
Retired	18.1	20.0		100

Table 5-3 No.1 P	Perceived Positive	Impacts of the Pro	ject by Occu	pation (%)
			1	

Farmer	18.1	10.0	25.0	\
Fisherman	/	\	١	\
Other	13.8	25.0	\	\
Total	45.8	7.9	1.6	1.2

Source: SA survey

5.1.2 Negative Impacts

1. LA and HD impacts

268.91 mu of land will be acquired permanently, and rural residential houses of 2000 m² and non-residential properties of 84 m² demolished for the Urban Livability component, affecting 126 households with 537 persons. The income and livelihood patterns of these households will be affected to varying degrees. The IAs should conduct resettlement and livelihood restoration properly, and pay all compensation to the APs timely and fully.

2. Construction impacts on operations of nearby stores and plants

During construction, roads will be occupied, and noise and dust will affect nearby stores' operations, thereby reducing their income temporarily or even resulting in business suspension.

Storekeeper of a clothing store on Wenchang Street (female, 35 years)

Construction should be preferably conducted in the slack season. Daily store rental is about 200 yuan. Construction will certainly affect our business, so compensation is expected.

3. Construction impacts on the traffic efficiency and safety of residents and students

Since existing roads are narrow and will be inevitably occupied during construction, the personal safety of local residents, will be threatened, especially old people, children and women.

Construction noise and dust will cause inconvenience to students going to and from school by foot, and private cars that they take will suffer from traffic congestion due to construction.

4. Construction impacts on school operations and nearby residents' daily lives

During construction, machinery operation and material transport will occupy roads, and noise, wastewater and slag produced will affect residents' physical health and living environment, especially old people, children and women.

The owner will attach great importance to this during construction, conduct publicity on construction safety, and take measures to reduce negative impacts.

Among No.1 negative impacts, 34.5%, 15.3% and 10.8% of the respondents choose "inconvenient traffic", "pollution", and "loss of land" respectively (see Table 5-4).

No.1 negative impact	Loss of land	Relocation	Reduced income	Unempl ovment	inconvenient traffic	Pollution	Other	Don't know
Civil servant	١	\	\	١	2.3	2.6	\	\
Institution staff	7.4	\	\	١	5.8	7.9	33.3	2.1
Enterprise employee	١	١	8.0	١	11.6	10.5	\	4.3
Individual operator	22.2	28.6	16.0	33.3	8.1	15.8	33.2	2.1
Freelancer	18.5	14.3	28.0	11.1	9.3	13.2	١	12.8
Unemployed	11.1	14.3	\	11.1	15.1	\	\	4.3
Retired	3.7	7.1	24.0	33.3	15.1	21.1	\	25.5
Farmer	29.6	14.3	16.0	11.1	19.8	23.7	33.3	25.5
Fisherman	١	\	\	\	١	2.6	\	\
Other	7.4	21.4	8.0	١	12.8	2.6	\	23.4
Total	10.8	5.6	10.0	3.6	34.5	15.3	1.2	18.9

Table 5-4 No.1 Perceived Negative Impacts of the Project by Occupation (%)

Source: SA survey

5.2 Public Transportation Component

5.2.1 Positive Impacts

1. Improving urban public transportation facilities

Currently, the urban center of Xiangshan County has a resident population of about 189,900.

There are 5.33 buses per 10,000 people, lower than the national standard of 6.7-8.3 buses per 10,000 people. Currently, the coach station is shared by urban and rural buses, and coaches, resulting in disorderly dispatching, operation and parking.

Bus stops in Xiangshan County are relatively small. Some bus stops have no seat or canopy, causing inconvenience to waiting passengers. Steps on buses are too narrow, there is no handrail, compartments are too small, and seats are limited. During peak times, compartments are very crowded.

Among disadvantages of taking bus, 45.1% of the respondents choose "crowded", 28.9% choose "time-consuming", 32.8% choose "non-punctual", 3.6% choose "unsafe", 32.4% choose "inconvenient", and 0.4% choose "other". The Project will improve infrastructure of public transportation, with the addition of designated seats on buses for the elderly, children, people with disability, and pregnant women. The improved public transportation will directly benefit women, poor population and migrant workers who are the majority of bus riders.

Disadvantage	Male	Female	Total
Crowded	42.5	46.9	45.1
Time-consuming	23.6	32.7	28.9
Non-punctual	37.7	29.3	32.8
Unsafe	5.7	2.0	3.6
Inconvenient	35.8	29.9	32.4
Other	\	0.7	0.4

T .L.L. E E	–				(0/)
Table 5-5	Evaluation	of Disadvan	tages of	laking Bus	S (%)

Source: SA survey

Resident interview in Happy Garden, Dandong Sub-district (male, 73 years) We go out by bus mainly, but the nearest bus stop is too far away. There is no rain shelter at the bus stop. Bus waiting times are long, usually 20-30 minutes. A round trip to the county town takes 4 yuan.

2. Relieving urban traffic pressure

As of April 2013, Xiangshan County had 105,000 motor vehicles, including 63,000 cars. The average growth rate of motor vehicles in the past 3 years is about 15%. With the rapid growth of motor vehicles, Xiangshan County is faced with great traffic pressure. The Project will play an important role in meeting this challenge.

3. Improving the layout of bus routes

Over 1/3 of the respondents think that the layout of the bus network is irrational (see Table 3-9). In addition, 51.8% of the respondents choose bus waiting times of 10-20 minutes. The Project will improve local public transportation, and make more people willing to take bus.

Waiting time	Male	Female	Total			
=<5 minutes	4.7	2.0	3.2			
5-10 minutes	26.4	32.0	29.6			
10-20 minutes	45.3	56.5	51.8			
20-30 minutes	20.8	9.5	14.2			
>30 minutes	2.8	/	1.2			

Table	5-6	Bus	Waiting	Time	(%)
-------	-----	-----	---------	------	-----

Source: SA survey

5.2.2 Negative Impacts

1. LA and HD impacts

12.52 mu of land will be acquired permanently, and non-residential properties of 2,764 m² demolished for the Public Transportation component, affecting 17 households with 51 persons in one village. The income and livelihood patterns of these households will be affected to varying degrees. The IAs should conduct resettlement and livelihood restoration properly, and pay all compensation to the APs timely and fully.

2. Potential traffic safety risks

After project completion, local traffic efficiency will be improved greatly. However, fast driving will increase the probability of traffic accidents. Faster buses will make passengers unstable, especially old people, women and children.

U Villager interview in Hexi Village, Dandong Sub-district (female, 40 years)

Many old people cross roads hurriedly because they don't know the traffic rules. There has never been any public activity like traffic safety education. Lanes of urban roads are disorderly, so traffic accidents are likely to occur when people cross roads.

3. Construction impacts on nearby stores

Noise from construction machinery and vehicles will affect nearby stores to some extent, including their transport, operations and operations, thereby affecting their income.

4. Construction impacts on traffic efficiency and safety

During the construction of bus stations, regular bus runs will be affected or even closed, causing inconvenience to residents going out by bus and aggravating traffic pressure. Traffic accidents are also likely to occur on roads under construction.

5. Construction impacts on nearby residents' daily lives

During construction, machinery operation and material transport will occupy roads, and noise, wastewater and slag produced will affect residents' physical health and living environment, especially old people, children and women.

The owner will attach great importance to this during construction, conduct publicity on construction safety, and take measures to reduce negative impacts.

5.3 Social benefits for main beneficiary groups of the Project and special groups

1. Local residents

The Public Transportation Component will improve road quality and the accessibility of bus routes, thereby saving traveling times for nearby residents. In addition, improved traffic management and intelligent traffic facilities will ensure their traffic safety and convenience. It is learned that some segments of Huancheng West Road are in poor condition, bumpy and narrow due to the absence of timely maintenance. This situation will be changed after the implementation of this component.

The bus is the most important public means of transport in daily life, and is closely associated with people's daily activities, such as shopping, visiting relatives, and handling affairs. It is learned that in Shangyu Village, Dandong Sub-district, most villagers go to Dancheng Town by bus. However, existing buses are small, and have limited seats and long running times. This component will offer more convenient public transport to local residents.

In general, 420 jobs will be generated at the implementation and operation stages, in which 320 unskilled jobs will be first made available to women, MLS population, etc. In addition, since different special groups have different needs for the Project, the Project's impacts on them are also different:

First, most women prefer taking a bus to buy food, and taking children to and from school. It is learned that most old people and women in Happy Garden Community go out by bus. However, the

bus routes are irrationally set, so that women spend more traveling times, and existing buses are small, so that many passengers cannot take a seat. In this component, the bus routes will be adjusted and buses will be provided with more seats, so that women can take buses more comfortably, safely and efficiently.

Second, most old people who move slowly prefer taking a bus. It is learned that most old people in Happy Garden Community say that the nearest bus stop is distant (over 500 meters away) from the community and has no rain shelter, and bus stairways are high and have no handrail, making it unsafe for old people to get on and off buses. This component will provide safer and more convenient bus services to old people.

Third, MLS residents in some villages/communities think that their traffic modes are restricted by their income. Most of them prefer taking a bus, but fares are relatively high for them. At the construction and operation stages, a relevant policy will be enacted in consideration of their special needs.

Finally, floating population lives locally for work and also prefers taking a bus, because they change their jobs and temporary residences frequently. This component will make it more convenient for them to look for jobs and go out.

2. Local enterprises and stores

The Public Transportation Component will improve logistics efficiency and save transport costs for local enterprises, thereby improving their economic efficiency and attracting more external investment.

The reconstruction of urban commercial centers will extend walking spaces on old streets and improve the aesthetics of existing street furniture. It is learned that on Tian'an Road and Wenchang Street, private cars and non-motor vehicles are parked at will without regulation, and there are also many peddlers, causing inconvenience to delivery vehicles and shoppers, and affecting local stores' business. In addition, street appearance is affected by self-built signs and canopies. Therefore, the Urban Livability Component will improve local walking spaces and street appearance, thereby attracting more customers.

In addition, this component will benefit local women, old people and floating population to some extent.

First, most women focus on housework every day and are short of leisure activities. It is learned that for some women in Hexi and Shangyu Villages, the only daily leisure activity is to going to town to buy food or other necessities. The existing old shopping centers cannot meet their leisure needs well due to old infrastructure. Therefore, this component will provide more leisure spaces to women.

Second, the improved shopping centers will also offer more leisure spaces to old people.

Finally, the improved shopping centers will meet shopping needs of floating population more conveniently.

3. Local educational institutions

Nandan Road Experimental Primary School has limited parking spaces and street-crossing facilities, so that students and parents would occupy nearby pavements during the peak hours, affecting vehicular traffic greatly and posing risks to students' personal safety. The Project will put an end to this situation completely.

The improvement of public spaces on Dannan Road will also ensure the traffic safety of women, old people and floating population taking children to and from school, and make room for passing

vehicles. In addition, children of some migrant workers who work in suburban industrial parks will also enjoy greater traffic safety because their parents cannot take them to and from school.

6 Social Gender and Development

6.1 Overview of Local Women

6.1.1 Population

At the end of 2013, Ningbo City's population was 5.801 million, including 2.8915 million males, accounting for 49.8%; and 2.9099 million females, accounting for 50.2%. Gender ratio dropped from 99.8 in 2011 to 99.4.

At the end of 2013, Xiangshan County's population was 543,800, including 276,800 males, accounting for 50.9%; and 267,000 females, accounting for 49.1%. Gender ratio was 103.7. See Table 6-1.

Table 0-1 Local Female Fopulation (2013)						
Division	Population (0,000)	Female population (0,000)	Percent (%)	Gender ratio		
Ningbo City	580.15	290.99	50.2	99.4		
Xiangshan County	54.38	26.7	49.1	103.7		

Table 6-1 Local Female Population (2013)

Source: Statistical Yearbooks 2014 of Ningbo City and Xiangshan County

6.1.2 Conditions of Local Women

In order to learn local women's development, 147 women were covered by the questionnaire survey or interviewed, accounting for 58.10% of sample size.

1. Age

Among the female samples, those aged 31-59 years are the most, followed by those aged over 60 years and 30 years or less.

٨٥٥	Female		Male		Total	
Age	Population	Percent (%)	Population	Percent (%)	Population	Percent (%)
30 years or less	14	9.5	6	5.7	20	7.9
31-59 years	107	72.8	68	64.1	175	69.2
60+ years	26	17.7	32	30.2	58	22.9

Table 6-2 Age Distribution of Samples by Gender

Source: SA survey

2. Educational level

There is no significant gender difference in terms of educational level, where 90.5% and 97.2% of the female and male respondents have received primary school, junior high school, or senior high or secondary technical school education.

Gender	Female		Male		
Educational level	Population	Percent (%)	Population	Percent (%)	
Illiterate	8	5.4	2	1.9	
Primary school	49	33.3	18	17.0	
Junior high school	57	38.8	57	53.8	
Senior high or secondary technical school	27	18.4	28	26.4	
Junior college or above	6	4.1	1	0.9	
Total	147	100.00	106	100.00	

Table 6-3 Educational Level Distribution of Samples by Gender

Source: SA survey

3. Occupation

The proportions of the female respondents who are civil servants, institution staff members, individual operators, and unemployed are slightly lower than those of the males, while proportions of the female respondents who are enterprise employees, freelancers and retirees are slightly higher than those of the males, showing an insignificant gender difference in division of labor.

According to interviews, women do farm work and take care of children at home mainly, and those working outside mostly work in the urban area of Ningbo City.

Gender	Female		Male		
Occupation	Population	Percent (%)	Population	Percent (%)	
Civil servant	1	0.7	2	1.9	
Institution staff	5	3.4	7	6.6	
Enterprise employee	12	8.2	6	5.7	
Individual operator	17	11.6	15	14.2	
Freelancer	21	14.3	13	12.3	
Unemployed	12	8.2	9	8.5	
Retiree	28	19.0	17	16.0	
Farmer	25	17.0	31	29.2	
Fisherman	26	17.7	6	5.6	
Other	147	100	106	100	

Table 6-4 Occupation Distribution of Samples by Gender

Source: SA survey

4. Income

34.69% of the female respondents have annual income of 2,300-10,000, and the average income of the males is much higher than that of the females.

Annual income	Female		Male		Total	
	Population	Percent (%)	Population	Percent (%)	Population	Percent (%)
<2,300 yuan	28	19.04	11	10.38	39	15.42
2,300-10,000 yuan	51	34.69	23	21.70	74	29.25
10,001-30,000 yuan	45	30.61	30	28.30	75	29.64
30,001-50,000 yuan	20	13.62	31	29.24	51	20.16
≥50,000 yuan	3	2.04	11	10.38	14	5.53

Table 6-5 Annual Income Distribution of Samples by Gender

Source: SA survey

5. Public participation

68% of the female respondents have participated in public activities, such as urban planning and river protection, lower than the proportion of 78.1% among the males (see Tables 6-6 and 6-7). This shows that more opportunities should be provided to women, especially old women, to participate in public activities.

Table 0-01 ubile 1 anticipation of Samples						
Туре	Young man	Young woman	Old man	Old woman	Whoever is free	Total
Percent (%)	11.2	10.3	20.7	14.7	43.1	100
Sources SA survey						

Table 6-6 Public Participation of Samples

Source: SA survey

Table 6-7 Public Participation of Samples by Activity Type (%)

	I		()
Туре	Female	Male	Total
Urban planning	1.4	9.7	4.9
River protection	4.9	12.6	8.1
Fare hearing	6.9	8.7	7.7
Health service/publicity	38.2	36.9	37.7
Other	2.1	1.0	1.6
None	54.9	52.4	53.8

Source: SA survey

6.2 Project Impacts on Women

6.2.1 Positive Impacts

1. Improving the traffic environment and women's traffic safety

16.3% of the female respondents choose walk, 42.9% choose electric bicycle, and 19.7% choose private car. This calls for the improvement of women's traffic environment and safety.

No.1 traffic mode	Female	Male	Total
Walk	16.3	6.6	12.3
Bicycle	2.0	2.8	2.4
Bus	16.3	12.3	14.6
Taxi	1.4	0.9	1.2
Electric bicycle	42.9	43.4	43.1
Motorcycle	1.4	13.2	6.3
Private car	19.7	18.9	19.4
Shuttle bus	1	1.9	0.8

Table 6-8 No.1 Traffic Mode Distribution of Samples by Gender (%)

Source: SA survey

FGD in Yueyin Community, Danxi Sub-district

There are too many vehicles in peak times, resulting in serious congestion. Some roads are rugged and streetlamps are not bright enough, making driving at night very dangerous.

2. Making it more convenient for women to take bus

The Project will improve the bus network, bus interiors and bus station facilities, and make bus transfer smoother, thereby shortening women's bus waiting times, improving their safety and comfort, and reducing their traffic costs.

GD in Zhangshuxia Village, Danxi Sub-district

Most bus passengers are old people, students and women. However, bus waiting times are too long (20-30 minutes); and buses are too small and have limited seats, forcing some people to go out by electric bicycle.

3. Generating jobs for women to increase their income

Some unskilled jobs will be generated at the construction and operation stages, and will be first made available to women, the poor and other vulnerable groups. In addition, the Project will promote the development of local commerce and industry, so that women can do such jobs as waiter, sales assistant, cleaner and operator. The Project will also promote the development of local tourism and tertiary industries, thereby generating more jobs for women. During project construction, it is estimated that there will be 240 non-technical jobs, and over 70 of these will be provided to women. During operation and maintenance period, about 24 positions could be provided to local women.

4. Creating a comfortable living environment to improve women's physical and mental health

The Project will improve the public infrastructure of the old urban area and offer leisure places, thereby creating a comfortable living environment for women, offering more leisure options to them, and helping improve their physical and mental health.

6.2.2 Potential Risks

Although the Project will benefit women in the above ways, such benefits will be reduced and women exposed to risks if gender activity is inadequate in project design, implementation and management, and women's needs and suggestions are neglected. Such potential risks include:

1. Land acquisition may affect the living standard of women in directly affected households. If they are not properly resettled or employed, their income will be reduced.

2. At the construction and operation stages, the rights and interests of women employed under the Project may not be well protected. In addition, some jobs are temporary, and women may be faced with unemployment.

3. Construction noise and dust will affect the physical and mental health of women, especially pregnant and lactation women, and may increase their medical expenses.

4. After project completion, fast driving will threaten women's personal safety, and faster buses will pose risks to female passengers.

6.3 Women's Needs and Expectations

1. Attitude to the Project

93.2% and 86.8% of the female and male respondents support the Project (see Table 6-9), It can be see that more women support the Project than men, and think the Project can improve the living environment, living quality, and traffic conditions.

Attitude	Female	Male	Total
Supporting	93.2	86.8	90.5
Objecting	1.4	/	0.8
Don't care	5.4	13.2	8.7

Table 6-9 Attitudes to the Project of Samples by Gender (%)

Source: SA survey

U Villager interview in Hexi Village, Dandong Sub-district (female, 42 years)

I think the Project is certainly good and support it generally, because it will help relieve traffic pressure. I don't know any adverse impact yet.

19.0% and 69.4% of the female respondents think the Project is very important and important respectively, while these figures are 12.3% and 77.4% among the males (see Table 6-10), showing little gender difference.

Importance	Female	Male	Total
Very important	19.0	12.3	16.2
Important	69.4	77.4	72.7
Don't care	8.2	7.5	7.9
Unimportant	2.7	2.8	2.8
Not important at all	0.7	١	0.4

Table 6-10 Perceived Importance of the Project of Samples by Gender (%)

Source: SA survey

2. Need for improved public transportation

15.9% of the female respondents think bus routing is irrational, 22.3% think bus connection for transfer is bad, and 11.5% think bus station facilities are insufficient (see Table 3-9). These figures are higher than those of the males, because more women go out by bus. Most local women expect to improve bus interiors and routing to shorten traffic times and ensure traffic safety.

Ullager interview in Hexi Village, Dandong Sub-district (female, 42 years)

Roads in the village are narrow, and bus stops are available on wide roads only, but bus intervals are usually 20-30 minutes, and buses do not arrive punctually. We go out usually by bicycle and rarely by bus. People's safety awareness is weak, and there has been no relevant training. Traffic accidents There is no traffic signal at road junctions. A crash occurred last year.

3. Need for jobs under the Project

Some temporary jobs will be generated at the construction and operation stages. Since the construction sites are close to residential areas, and working hours are relatively flexible, local

residents expect to receive such jobs.

76.5% of the female respondents are willing to get employed under the Project, higher than that of the males (63%). Women expect that workplaces are close to homes, so that they can take care of their families while working.

Willingness	Female	Male	Total		
Willing	76.5	63	68.2		
Unwilling	23.5	37	31.8		

Table 6-11	Willingness	of the Sam	ples for Em	ployment	under the I	Project (%)
			1			, ,	

Source: SA survey

4. Need for improved public participation awareness

29.3% and 51.7% of the female respondents think it very necessary and necessary to improve public participation awareness respectively, higher than 33% and 49.3% among the males (see Table 6-12). Some women expect to participate in more public activities, learn more knowledge, and improve safety and environmental awareness to promote environmental improvement and harmonious community building.

Table 6-12 Necessity for Public Participation Perceived by the Samples (%)

Attitude	Female	Male	Total
Very necessary	29.3	33.0	30.8
Necessary	51.7	49.3	50.6
Neither, nor	18.4	17.9	18.2
Unnecessary	0.7	\	0.4

Source: SA survey

Table 6-13 Attitudes to Improved Public Participation Awareness of the Samples (%)

Activity	Female	Male	Total
Training	12.9	15.1	13.8
Brochure study	14.3	17.9	15.8
Reading newspaper / watching TV	32.7	39.6	35.6
Watching bulletin board	10.2	10.4	10.3
Community activity	53.7	48.1	51.4
Employer's activity	8.2	0.9	5.1
Other	0.7	١	0.4

Source: SA survey

Resident interview in Yaolin Community, Danxi Sub-district (female, 52 years)

I would participate in public activities in which I'm interests, but I'm very dissatisfied with the implementation of such activities, mainly because decisions are usually made by community officials. For this reason, public activities have little or even no effect.

6.4 Women's Social Status

There are slight differences in educational level and occupation (see Tables 6-3 and 6-4). 11.6% of the female respondents and 14.2% of the males are individual operators, showing that the independent business startup awareness and independence of women is improving. 46.27% of the female respondents and 55.31% of the males have annual income of over 10,000 yuan (see Table 6-5), showing little difference. 49.4% of the female respondents and 56.8% of the males participate in public activities (see Table 6-6). It can be seen that gender differences are not significant, and women's social status is improving.

GD in Zhangshuxia Village, Danxi Sub-district

Women in our village usually work at the textile factory in the village, and are paid about 3,000 yuan per month. Women with children usually work at home, and are paid about 2,000 yuan per month. All village affairs involve women's representatives, and their opinions and suggestions are well adopted.

6.5 Relations between Women and Traffic

1. Current situation

5.4% and 31.3% of the female respondents think local traffic problems are "very serious" and "serious" respectively (see Table 3-2), and 4.1% and 19% think it very convenient and convenient to go to public places respectively (see Table 5-2). 56.5% of the female respondents choose bus waiting times of 10-20 minutes. It can be seen that traffic conditions should be improved to meet women's needs.

GD in Shangyu Village, Dandong Sub-district

Women's status is very high. Most women work, some running stores and some working at enterprises, such as Tian'an Group in Dancheng Industrial Park. Their monthly pays are over 3,000 yuan. All of them go to and from work by electric bicycle.

2. Problems

42.9% and 19.7% of the female respondents prefer going out by electric bicycle and private car, and only 16.3% prefer bus (see Table 6-8). Only 25.9% of the female respondents think it convenient to go out by bus (see Table 3-10). This shows that women think public transportation is inconvenient. However, for women going out by electric bicycle, there are such problems as rugged pavement, insufficient night lighting, and improperly designed traffic signals and bus stops. Therefore, more attention should be paid to women's attitudes, needs and suggestions to improve the project design.

3. Traffic safety

32% of the female respondents are satisfied with local traffic safety, differing slightly from that of the males (24.5%) (see Table 3-6). 72.8% and 55.1% choose improving road infrastructure and strengthening safety education as measures to improve traffic safety (see Table 3-8). Some women think that more training and education on traffic safety should be offered in communities and villages to improve their traffic safety awareness.

6.6 Social Gender Action Plan

The Project will help improve local traffic and public facilities, and promote the development of local secondary and tertiary industries. Local women will benefit from the Project by labor input. In addition, the Project may pose some potential risks to women. Therefore, gender-sensitive measures should be taken to enhance positive impacts and minimize negative impacts, thereby promoting women's development.

The gender action plan of the Project has been developed through adequate consultation with the Xiangshan PMO, IAs, women's federation and other agencies. See Table 6-14.

Action	Target	Implemented by	Stage	Details	Funding	M&E indicators
1. Paying attention to women's needs to improve the project design	Local women	Design agency, construction agency, owner, PMO, county housing construction	Construction	 Public Transportation component— Bus stop facilities should be improved, such as seats, canopies and emergency exits. Bus interiors should be designed to meet needs of women, children and old people, such as seats for the weak, handrail height, stop reporting, and signs. More convenient access of bus routes to public places should be provided. Urban Livability component— Traffic signals, road passes and streetlamps should be designed in consultation with women and old people. Traffic safety signs and roadside safety facilities should be designed in consultation with women and old people. Deceleration strips should be provided where appropriate to control speed, and ensure the safety of women and old people. 	Project budget	Needs and suggestions of women and old people, and design feedback
2. Promoting women's participation at all stages and improving their status	Local women	federation, transport bureau, bus company, sub-district offices, village/	Construction & operation	 Not less than 40% of participants on meetings at all stages should be women. Times, venues and forms of information disclosure and training should meet women's needs. It should be ensured that women may sign to receive compensation. 	Project budget	 Number of FGDs, number of women involved, and minutes Times, venues and forms of disclosure and training Percentage of women signing to receive compensation
3. Making jobs first available to women	Local women	community committees cal nen	Construction	 30% of unskilled jobs generated at the construction stage should be first made available to vulnerable groups including women. 30% of unskilled jobs generated at the operation stage should be first made available to vulnerable groups including women. 	Project budget, contracto r budget	 1) Number of women receiving unskilled jobs at the construction stage 2) Number of women receiving unskilled jobs at the operation stage
4. Offering traffic safety and skills training to women	Women in affecte d HHs		Construction & operation	 Times, venues and forms of skills training for women should meet women's needs. Skills training should include traffic safety, and traffic safety publicity and training in diverse forms should be conducted on the community level. 	Contract or budget	 Times, venues and forms of training, and percentage of women involved Forms of traffic safety publicity and training on the community level

Table 6-14 Social Gender Action Plan

7 Public Participation

7.1 Participation at the Preparation Stage

Since September 2014, the Xiangshan PMO has conducted a series of surveys, and public participation and consultation stages to collect needs and suggestions, and improve the project design. This report has been prepared based on such public participation activities as FGD, in-depth interview, stakeholder discussion, and key informant interview.

1. Project information disclosure

1) During 2014-2015, the feasibility study agency introduced the background and objectives of the Project to the APs, village officials, technicians, etc., collected their comments, and visited the sites in order to prepare the feasibility study report.

2) From October 2014 to June 2015, the task force conducted public consultation to learn stakeholders' needs and attitudes, expected resettlement modes, and the Project's social impacts and benefits.

3) From August 2013 to April 2015, the county development and reform bureau, municipal radio and TV stations, and newspapers disclosed project information.

象曲县发	· · · · · · · · · · · · · · · · · · ·	象曲县《	
	The same same same same same same same		
	ит - лити влучи влучу влавныма «понитик» - Алин	NEAL COLOR	NEW - KRAN - Kray NEW 95-1203 - Kran EN-Martine - Kau
	ていたいましたころからない、そうでは、このでしたい、このでしたい、このでは、このでしたい、このでは、このでは、このでは、このでは、このでは、このでは、このでは、このでは	annes Grann Internet References	1月21日本代、中心世界的時期、世界時期、日本代、日本市、東京市、東京市、日本市、日本市、日本市、日本市、日本市、日本市、日本市、日本市、日本市、日本

Figure 7-1 Project Information Disclosure

2. Questionnaire survey

From October 2014 to June 2015, the task force conducted a questionnaire survey in 6 villages and communities. 253 copies of the questionnaire were distributed to learn local traffic conditions, traffic infrastructure, traffic safety and management, public space upgrading, public transportation system, and relevant needs and attitudes.

3. FGD

In October 2014, 21 FGDs were held with 128 local residents to learn needs for the Project, impacts of the Project and suggestions on the Project, including 41 women and 45 old people.

4. Key informant interview

50 men-times of key informants from the county women's federation, ethnic and religious affairs bureau, civil affairs bureau, social security bureau, transport bureau, planning bureau, housing construction bureau, schools, sub-district offices, village/community committees were interviewed to learn the Project's impacts and potential risks, needs for and suggestions on the Project, etc.

5. Stakeholder discussion

At the preparation stage, discussions where held with stakeholders, including women, old people, the poor, IAs, PMO, design agency, and government departments concerned.

Table 7 T Bannary of Table Tattelpation Advises at the Treparation Blage					
Туре	Organizations	Participants	Remarks		
Project information disclosure	Affected villages/ communities	Design agency, APs, village officials, technicians	Introducing the background and objectives of the Project, and collecting comments in order to prepare the feasibility study report		
	Affected villages/ communities Task force, PMO, affected households		Learning stakeholders' needs and attitudes, expected resettlement modes		
	Official website, radio/TV stations	APs	Disclosing project information		
Questionnaire survey	6 villages/ communities	Nearby residents	Collecting relevant needs and attitudes		

Table 7-1 Summary of Public Participation Activities at the Preparation Stage

FGD	20 villages/	128 residents, including 40 women, 45	Learning attitudes to and needs for the Project,
	communities	old people, and 20 poor and disabled	especially women, old people and the poor
Key informant interview	PMO, agencies concerned and village committees	Heads of county women's federation, ethnic and religious affairs bureau, civil affairs bureau, social security bureau, transport bureau, housing construction bureau, schools, sub-district offices,	Learning impacts of traffic conditions on residents, existing issues, and suggestions on the Project
		Stakeholders, including local residents,	Learning relevant policies and collecting
Stakeholder discussion	PMO, agencies concerned	IAs, PMO, design agency, government departments concerned	suggestions

At the preparation stage, all issues related to the Project were further defined on the basis of public participation, such as road network improvement (road management, involuntary resettlement, construction safety, etc.), public space upgrading (construction safety, construction impacts, etc.), public transportation system upgrading (involuntary resettlement, construction environmental impacts, construction safety, etc.), and traffic safety publicity (publicity for women and the poor, etc.). Through public participation, all stakeholders expressed suggestions and expectations, thereby facilitating the improvement of the project design.

7.2 Participation at Subsequent Stages

At the preparation stage, the task force, PMO, feasibility study agency, etc. conducted adequate informed consultation and public participation to collect attitudes, needs and suggestions from local residents, and communicated with the county transport bureau, bus company, development and reform bureau, women's federation, poverty reduction office, civil affairs bureau, sub-district offices, and community committees. In this process, local residents' needs and suggestions suggestions were incorporated into the project design.

These public participation activities aim to minimize the Project's potential negative impacts and risks, and make it easier for local residents to benefit from the Project. See Table 7-2.

7.3 Public Participation Mechanism and Strategy

7.3.1 Past Traffic Safety Activities in Xiangshan County

In order to promote traffic safety management and prevent traffic accidents, the county transport bureau, public security bureau, housing construction bureau, and other departments concerned have conducted the following activities:

1. Establishing the Xiangshan County Youth Traffic Education and Practice Base

With the rapid economic, social and traffic development of Xiangshan County, youth traffic safety has become a great concern of citizens and parents. In order to strengthen traffic safety education for youth and strengthen their civilized traffic awareness, the county traffic police brigade established the Xiangshan County Youth Traffic Education and Practice Base was established formally at the county student social practice base on June 10, 2015. The base provides live simulations of real traffic environments, so that students can learn traffic laws and regulations, and traffic safety knowledge in a relaxing and pleasant atmosphere.

2. Offering volunteer services on civilized traffic

In order to maintain traffic order, and improve the civilization and traffic safety levels of Xiangshan County, the county civilization office has initiated the civilized traffic volunteer service action together with the county public security bureau and volunteers' association. Traffic volunteers would maintain traffic order at designated road junctions, offer traffic publicity and education, and help citizens develop safe and civilized traffic practices.

3. Implementing the Civilized Traffic Action Plan

In order to improve the traffic civilization level of citizens, the county government has implemented the Civilized Traffic Action Plan together with the plan's member units, the county traffic police brigade and traffic police squadrons, including civilized traffic education for citizens, strict traffic management and law enforcement, volunteer services on civilized traffic, etc. 7.3.2 Traffic safety publicity and training on the community level and at schools

In order to ensure the orderly and smooth implementation of traffic safety management and publicity, and realize the objectives of the Project, local residents (especially women, old people and

the poor), students and parents should participate extensively in the design, organization, implementation, management and supervision of traffic safety activities.

A participation plan across different stages of the Project has been developed for Traffic Safety Action Team in consultation with the agencies concerned. See Table 7-2.

Stage	Activity	Description	Mode	Remarks
		①Disclosing project information;	Questionnaire	PMO, IAs, transport
Desig	Design	③Collecting local residents' comments and suggestions	interview	company, feasibility
	optimization	on the Project		study agency
n	•	Reflecting residents' comments and suggestions to the	Interview;	
		PMO, feasibility study agency, transport bureau, etc.	written report	
		①Assisting the construction agency in disclosing	Observation,	
		construction information, and supervising construction to	mass media,	
		eliminate potential risks;	brochure,	
		(2) Involving local residents in project construction, and	leaflet	
_	Construction	making 30% of jobs first available to vulnerable groups;		
Š		③Responding to comments and suggestions, and		
nst		disclosing the contact information for grievance redress		
Z		Reflecting residents' comments and suggestions on	Interview;	PMO, IAs,
cti		construction to the owner and construction agency	written report	construction agency
n	Traffic safety	①Conducting school-based traffic safety knowledge	Workshop,	County women's
	and	contest and publicity;	brochure;	federation, transport
	knowledge	②Giving traffic safety knowledge publicity to local	poster, leaflet,	bureau, traffic police
	publicity and	drivers of motor vehicles;	contest, mass	brigade, education
	training	⁽³⁾ Offering traffic safety training in diverse forms to local	media,	bureau, traffic safety
	, , , , , , , , , , , , , , , , , , ,	residents, especially for women	meeting	supervision teams
•	Desident	UMaintenance and management of traffic and public	١	PMO, IAS, traffic
b b	Project	Intrastructure constructed under the Project;		safety supervision
era	management	2 Oliening ongoing trainc salety publicity and training to		teams, frame Salety
tio	Crievence			
ń	Grievance	Establishing a grievance redress mechanism	Hotilne	PIVIO, IAS
	rearess			

Table 7-2 Whole-process Participation Plan of the Traffic Safety Action Team

Main activity		Time	Participants	Key opinions and suggestions	Outcome
	1. Learning residents' traffic	Oct. 2014	Task force, owner, PMO, CDRB,	Most residents think that the current situation	The project design will be optimized to
	needs, attitudes and comments	– Jun.	transport bureau, sub-district	of traffic is unsatisfactory, the urban traffic	improve traffic efficiency, and
	through interview	2015	offices	network should be improved, and supervision	supervision and management will be
				and management should be strengthened.	strengthened.
	2. Learning residents' attitudes to	Oct. 2014	Task force, owner, PMO, CDRB,	Residents are satisfied with rod maintenance,	Urban roads will be broadened to
	road conditions and pavement	– Jun.	transport bureau, sub-district	but expect that urban roads be broadened,	relieve traffic congestion and improve
	quality through interview	2015	offices	new roads constructed and pavement quality	pavement quality.
				improved to relieve traffic congestion.	-
	3. Learning residents' needs for	Oct. 2014	Task force, owner, PMO, CDRB,	Most residents think it necessary to improve	Such facilities will be improved,
Traffic	and suggestions on traffic	– Jun.	transport bureau, sub-district	traffic safety signs, deceleration strips,	especially at road junctions and on key
	infrastructure through interview	2015	offices	crosswalks, etc. to ensure safety.	road segments.
	4. Visiting Huancheng West and	Oct. –	Task force, owner, PMO, CDRB,	The broadening of Huancheng West and	An appropriate compensation and
infrastru	Baohai Roads, and interviewing	Dec.	transport bureau, housing	Baohai Roads will involve the demolition of	resettlement program will be
cture	nearby residents	2014	construction bureau, sub-district	many stores and residential houses.	implemented to minimize such impacts.
	_	0 1 0011	offices	Demolition impacts should be minimized.	T I DIO III III
	5. Learning residents' willingness	Oct. 2014	Task force, owner, PMO, CDRB,	Residents expect to participate in project	The PMO will mobilize women, old
	to participate in the Project	– Jun.	transport bureau, housing	construction and receive jobs generated by	people, etc. to attend relevant meetings,
	through FGD and interview	2015	construction bureau, women's	the Project, especially some women.	and jobs will be first made available to
			rederation, ethnic and religious		local residents, especially women.
	6 Learning construction imposts	Oct 2014	Track force, owner, DMO, CDDP	Desidents expect construction impacts he	The environmental management plan
	ond residents' concerns through	UCI. 2014	transport burgau, bousing	kept to a minimum, construction he patified in	will be implemented strictly during
	ECD and interview	- Jun. 2015	construction bureau, women's	advance and be conducted in stages	construction to minimize poise and dust
		2013	federation ethnic and religious	overnight construction be avoided, and safety	construction to minimize hoise and dust
			affairs bureau sub-district offices	publicity be conducted properly	notified in advance
	1. Learning current public	Oct. 2014	Task force, owner, PMO, CDRB,	Most residents think it is inconvenient to take	Bus routing, transfer and operation will
	transportation services and	– Jun.	transport bureau, bus company.	bus, and the main problems include irrational	be optimized, bus frequency increased.
	existing issues	2015	sub-district offices	routing, bad connection for transfer, long	and bus station and terminal
				waiting time, irrational bus network, and	infrastructure improved.
Public				insufficient station and terminal facilities.	
transpor	2. Learning deficiencies in bus	Oct. 2014	Task force, owner, PMO, CDRB,	Some residents say that some bus stops	Their comments will be incorporated
infractru	stops, and residents' opinions	– Jun.	transport bureau, bus company,	have no canopy or seat, and bus stops are	into the bus stop design.
cture	and needs through interview	2015	sub-district offices	irrationally spaced.	
cluie	3. Learning deficiencies in bus	Oct. 2014	Task force, owner, PMO, CDRB,	Some residents say that interiors have such	Buss will be properly sized to relieve
	interiors, and residents' opinions	– Jun.	transport bureau, bus company,	problems as narrow space, crowdedness,	crowdedness, and provided with
	and needs through interview	2015	sub-district offices	insufficient seats, and improper design.	handrails and more seats for the weak.
	4. Visiting the Tashan bus	Oct. 2014	Task force, owner, PMO, CDRB,	These bus stations involve the demolition of	An appropriate compensation and

Table 7-2 Outcomes of Public Participation

terminal liveing integrated hus	lum	transport burgay, bayaing	starsa and hausaa. Desidents evenest that	recettlement program will be
terminal, Juqing integrated bus	- Jun.	transport bureau, nousing	stores and houses. Residents expect that	
station and new town hub, and	2015	construction bureau, women's	demolition impacts be reduced.	implemented to minimize such impacts.
interviewing nearby residents		federation, ethnic and religious		
		affairs bureau, sub-district offices		
1. Learning the current situation	Oct. 2014	Task force, owner, PMO, CDRB,	Some roads have no crosswalk or traffic	The traffic management system will be
of urban traffic safety	– Jun.	transport bureau, sub-district	signal, or traffic signal timing is irrationally	rationally designed and upgraded to
management and existing issues	2015	offices	set, and road signs are unclear. Safety	improve the traffic safety of the old
through interview			protection measures should be taken to	urban area.
			improve traffic safety.	
2. Learning traffic safety	Oct. 2014	Task force, PMO, transport	Residents expect traffic safety publicity	Publicity traffic safety and management
awareness training, and	– Jun.	bureau, traffic police brigade,	training be offered in diverse forms, such as	will be conducted in diverse forms, and
residents' needs and comments	2015	education bureau. social security	leaflet, TV, broadcast, door-to-door and	traffic safety training offered along with
through interview		bureau civil affairs bureau	workshop to meet needs of different aroups	skills training or school education
an eagin mor now		women's federation	such as animation and school-based publicity	Publicity on traffic safety and civilization
		women's rederation	for children, and workshop and face to face	will be conducted on the community
			for children, and workshop and lace-to-lace	
		T / (DNO 0000	communication for old people.	
1. Learning the current situation	Jun. 2015	Task force, owner, PMO, CDRB,	Most residents expect that the pavement be	Non-motor vehicle lanes, public leisure
of Wenchang Street, and stores'		transport bureau, sub-district	improved, the disorderly parking problem	facilities and street furniture will be
needs and comments through		offices	solved, and store canopies unified.	provided, the pavement repaired, and
interview				store facade unified.
2. Learning public spaces near	Jun. 2015	Task force, owner, PMO, CDRB,	Most people expect that parking in peak	Safe road crossing facilities will be
Nandan Road Experimental		transport bureau, sub-district	times be improved, deceleration strips and	provided, parking spaces arranged
Primary School, and comments		offices	traffic signals provided at the crossroad, and	rationally, and stalls regulated.
of students and parents through			stalls that occupy the road regulated	<i>y,</i>
interview				
	terminal, Jiuqing integrated bus station and new town hub, and interviewing nearby residents 1. Learning the current situation of urban traffic safety management and existing issues through interview 2. Learning traffic safety awareness training, and residents' needs and comments through interview 1. Learning the current situation of Wenchang Street, and stores' needs and comments through interview 2. Learning public spaces near Nandan Road Experimental Primary School, and comments of students and parents through interview	terminal, Jiuqing integrated bus station and new town hub, and interviewing nearby residents– Jun. 20151. Learning the current situation of urban traffic safety management and existing issues through interviewOct. 2014 – Jun. 20152. Learning traffic safety awareness training, and residents' needs and comments through interviewOct. 2014 – Jun. 20151. Learning the current situation of Wenchang Street, and stores' needs and comments through interviewJun. 20152. Learning public spaces near Nandan Road Experimental Primary School, and comments of students and parents through interviewJun. 2015	terminal, Jiuqing integrated bus station and new town hub, and interviewing nearby residents– Jun. 2015transport bureau, housing construction bureau, women's federation, ethnic and religious affairs bureau, sub-district offices1. Learning the current situation of urban traffic safety management and existing issues through interviewOct. 2014 – Jun. 2015Task force, owner, PMO, CDRB, transport bureau, sub-district offices2. Learning traffic safety awareness training, and residents' needs and comments through interviewOct. 2014 – Jun. 2015Task force, PMO, transport bureau, traffic police brigade, education bureau, social security bureau, civil affairs bureau, women's federation1. Learning the current situation of Wenchang Street, and stores' needs and comments through interviewJun. 2015Task force, owner, PMO, CDRB, transport bureau, sub-district offices2. Learning public spaces near Nandan Road Experimental Primary School, and comments of students and parents through interviewJun. 2015Task force, owner, PMO, CDRB, transport bureau, sub-district offices	terminal, Jiuqing integrated bus station and new town hub, and interviewing nearby residents- Jun. 2015transport bureau, housing construction bureau, women's federation, ethnic and religious affairs bureau, sub-district officesstores and houses. Residents expect that demolition impacts be reduced.1. Learning the current situation of urban traffic safety management and existing issues through interviewOct. 2014 – Jun. 2015Task force, owner, PMO, CDRB, transport bureau, sub-district officesSome roads have no crosswalk or traffic signal, or traffic signal timing is irrationally set, and road signs are unclear. Safety protection measures should be taken to improve traffic safety.2. Learning traffic safety residents' needs and comments through interviewOct. 2014 – Jun. 2015Task force, PMO, transport bureau, social security bureau, social security bureau, social security bureau, civil affairs bureau, women's federationResidents expect traffic safety needs of different groups, such as animation and school-based publicity for children, and workshop and face-to-face communication for old people.1. Learning the current situation of Wenchang Street, and stores' needs and comments through interviewJun. 2015Task force, owner, PMO, CDRB, transport bureau, sub-district officesMost people expect that the pavement be improved, the disorderly parking problem solved, and store canopies unified.2. Learning public spaces near Nandan Road Experimental Primary School, and comments of students and parents through interviewJun. 2015Task force, owner, PMO, CDRB, transport bureau, sub-district officesMost people expect that the prossorad, and sta

CDRB = county development and reform bureau

8 Risks of the Project

8.1 Risks in Project Design

Local residents' needs must be incorporated into the design of traffic facilities to be constructed under the Project. However, some needs of women, children and old people may be neglected. The upgrading of public spaces for Wenchang Street, Tian'an Road and other commercial streets, and Nandan Road Experimental Primary School aims to create a better surrounding environment, and offer more leisure options to nearby residents. However, some needs of storekeepers, nearby residents, students and parents may be neglected if only considered from engineering perspectives.

Suggestions: 1) Not less than 40% of participants at meetings related to the Project should be women, old people and other vulnerable groups; 2) Attention should be paid to needs of women, old people and other vulnerable groups at relevant meetings; and 3) Needs of stores, nearby residents, students and parents should be considered in the design of public space upgrading.

8.2 Risks in Project Construction

1. Involuntary resettlement risks

The Project involves permanent land acquisition, and the demolition of residential houses and nonresidential properties. 476.871 mu of land will be acquired permanently, affecting 339 households with 1,055 persons, and demolition area will be 11,574 m², affecting 90 households with 310 persons. Land acquisition and house demolition will affect local residents' production and livelihoods to some extent. If the compensation rates are too low, or compensation is not paid timely and transparently, appeals and objections may arise, thereby affecting project construction.

Suggestions: 1) Land acquisition should be minimized in project design and implementation, and full compensation provided to the APs; and 2) Income and livelihood restoration measures should be taken in conjunction with local skills training activities, and the APs should be involved in detailed design to minimize resettlement.

2. External risks of construction

There will be risks arising from force majeure during construction: 1) Natural disasters such as lightning, rainstorm, typhoon, and unstable water and power supply may result in properties losses and personal injuries; and 2) Improper decisions made by competent authorities may affect construction progress.

Storekeeper of a clothing store on Wenchang Street (female, 28 years) The stores here mostly deal with retail, and stock goods by trolley and tricycle. If seats are provided on the street, the access of trolleys and tricycles will be affected.

Suggestions: 1) The construction agency will isolate risk sources both spatially and temporally to reduce losses and injuries; 2) Decisions must be based on cost-effectiveness analysis; and 3) The relevant staff will be educated on laws, regulations, operating procedures and safety skills, so that they are fully aware of project risks and ways to control such risks. A rational organizational structure and rational policies can also prevent or mitigate risks effectively.

3. Safety risks of construction

Construction safety risks include: 1) Noise and dust produced by construction vehicles and activities may threaten the health of local residents, especially old people, children and women; 2) Public space upgrading on Wenchang Street and near Nandan Road Experimental Primary School may threaten the personal safety of pedestrians and students; and 3) Construction workers may be injured due to inadequate skills or safety protection measures.

Suggestions: Although construction risk are temporary, effective measures should still be taken to reduce such risks: 1) Construction should be notified in advance and be conducted in stages, overnight construction be avoided, and safety protection measures taken; solid waste on the construction site should be cleaned up regularly; 2) Guide and safety signs should be provided on construction sites and key road segments; and 3) Construction safety management should be included in the construction contract, and safety awareness education for workers strengthened.

4. Risks to operations of stores and enterprises

Project activities will affect daily operations of nearby stores and enterprises: 1) Construction

vehicles will enter the already crowded streets, causing inconvenience to vehicles and pedestrians; and 2) Noise and dust produced by construction activities will affect operations of stores and enterprises.

Suggestions: 1) Construction should be conducted in stages, and a certain amount of space reserved for vehicles and pedestrians; 2) Construction should be scheduled rationally to mitigate negative impacts; 3) Construction machinery should meet the noise standard and noise reduction measures should be taken; 4) During construction, environmental monitoring should be conducted to learn construction impacts and adjust the construction plan timely; and 5) Solid waste and dust should be cleaned up effectively.

8.3 Risks in Subsequent Project Operation and Management

1. Risk of maintenance of public infrastructure

The public infrastructure constructed under the Project has to be maintained and managed properly to function sustainably.

Suggestions: 1) A sound management system should be established; and 2) Local residents should be involved in maintenance and management.

Storekeeper of a grocery on Wenchang Street (female, 55 years)

The monthly cleaning charge of a store is only 10 yuan. The annual rental of a store is 70,000 yuan, which has remained stable and even dropped slightly this year due to market depression. Construction will certainly affect our business, and compensation will be negotiated.

Storekeeper of a children's clothing store on Wenchang Street (female, 35 years) Seats at bus stops are good, but must be maintained, otherwise they cannot function properly. There are parking spaces indicated by white lines on the street, but vehicles are parked disorderly, because no one is in charge here.

Ullager interview in Zhangshuxia Village, Danxi Sub-district (male, 31 years)

This road has been repaired and improved every year, but with the growth of population, it should be broadened. A segment near the school is being repaired, where traffic is affected. The pavement is likely to be damaged by overloaded trucks.

2. Risk of road aging and damage

The improved road network will serve not only urban vehicles, but also rural vehicles and trucks. These roads will be damaged due to aging or prolonged service, which will be likely to result in congestion during maintenance.

Suggestions: 1) A normative management system for road maintenance should be established to inspect and maintain road quality regularly; 2) Preventive maintenance should be conducted timely.

3. Risk of shortage of traffic safety knowledge among local residents

Although local residents pay attention o traffic safety at ordinary times, some of them have low traffic safety awareness, and do not understand traffic signals very well, especially old people, women and children. Further traffic safety training should be conducted to prevent accidents.

Suggestions: 1) Traffic safety publicity should be strengthened for local residents to improve their traffic safety awareness; and 2) Innovative training modes should be applied, such as lecture, poster, video and live demonstration.

The task force has developed a feasible social action plan in consultation with the PMO, owner, IAs and design agency, as shown in Table 8-1.

Resident interview in Yueyin Community, Danxi Sub-district (male, 54 years)

Some people run red lights, so traffic supervision by the police should be strengthened. Buses have too limited seats, and many passengers do not offer seats to the weak. This problem must be solved.

Stage	Risks	Actions	Agencies	Time frame	Budget	Monitoring indicators
Design	 Unsound design of infrastructure without fully considering needs of nearby residents, especially women, old people, floating population and other vulnerable groups Design of public spaces on Wenchang Street, Tian'an Road and Dannan Road without fully considering needs of stores, nearby residents, women, students and teachers 	 ①Not less than 40% of participants in public participation activities should be women and old people; ②More attention should be paid to needs of those directly benefiting from the Project, especially old people, women and floating population; ③Public space design should be based on inputs from nearby stores, nearby residents, students, parents and teachers Specific implementation: ①Roads should be designed in considerable of pedestrian safety, and provided with safety facilities; ②Roads should be connected to major enterprises in nearby industrial parks; ③Bus stops should be provided in densely populated places, and have rain shelters and seats; ④Bus routes should be designed rationally and more bus runs should be available; ⑤Store facades on old commercial streets should be unified and renovated, and parking and peddling regulated; ⑥More parking spaces should be provided around Nandan Road Experimental Primary School, and safety measures taken to ensure the safety of street-crossing students. 	Design agency, contractor, PMO, owner, county bus company, housing construction bureau, women's federation, civil affairs bureau, transport bureau, education bureau, township governments, village committees, traffic safety action teams	Before and during construction	Project budget	 Time and venue of public participation meeting, number of participants, including number of vulnerable participants Collection and feedback of needs and suggestions on road and safety facility design Collection and feedback of needs and suggestions on bus infrastructure design Collection and feedback of needs and suggestions on bus infrastructure design Collection and feedback of needs and suggestions on facility design for commercial streets Collection and feedback of needs and suggestions on parking spaces and street-crossing facilities around Nandan Road Experimental Primary School Collection and feedback of needs and suggestions on the above aspects among women, old people

Table 8-1 Summary of Project Risks and Actions

		1		1		F
		For special groups:				and other special groups
		①Street-crossing facilities should be provided on high-traffic roads for the convenience of old people and children;				
		②Buses should be provided with a barrier-free passage and other user-friendly facilities, and more seats;				
		③Facilities for vulnerable groups should be provided in buses, such as dedicated seats and handrails;				
		(4) Bus fares should be reduced for MLS population and old people;				
		⁽⁵⁾ More leisure spaces should be offered to women and old people on commercial streets.				
	1 Permanent LA	①LA should be minimized in design and implementation, full	Design	1)Before	Project	1) See the RAP for details;
	and HD involved	compensation granted to the APs, and livelihood restoration	agency,	and during	budget	
	in construction;	measures taken;	owner, PMO,	construction,		2) Safety clauses and their
		©Cofety monoport of cyld be included in construction contracts	land and	during		performance;
		Salety management should be included in construction contracts,	resources	operation		3) Forms and frequency of
	construction	and safety education strengthened for workers,	bureau, LA	2 Before		communication;
	accidents	③Construction information and traffic guiding programs should be	and HD	and during		
	improper	communicated in many ways;	management	construction		4) Measures taken to
m	decisions and	Construction sofety management systems should be established:	office,	-		reduce trainc impacts;
ple	irrational		fodoration	③During		5) Noise reduction
me	management	5 Residents should be reminded of safety, and noise reduction and	civil affairs	construction		technique applied;
Pint	systems	dust control measures taken;	bureau	(4) During		
atio	© Construction	Construction should be conducted in stages, more appeal left for	transport	construction		6) Complaints on overnight
on	imports on daily	Construction should be conducted in stages, more spaces left for	bureau, bus			construction and handling,
	traffic and life	trucks, and hoise and environmental impacts controlled,	company,			7) No-horn and other signs;
		⑦No-horn and other signs should be set up in nearby communities	township			
	④Construction	to guide local traffic;	governments,			8) I raffic order maintenance
	impacts on	Managuran abould be taken to maintain traffic order during pack	village			ouring peaк nours;
	business	Sineasures should be taken to maintain trailic order during peak	committees			9) Advice given to old
	operations of					people and children;
	nearby stores and					
						10) Construction waste

		For special groups: ①Publicity should be given in communities and schools to warn old people and children off construction sites; ②Construction vehicles should drive slowly to ensure the safety of women and old people; ③Construction waste should be transported and disposed of properly so as not to affect local residents' health.		offer	Workin	transport and residents' comments; 11) Construction vehicle operation and residents' comments
	infrastructure maintenance and	local residents in maintenance and management extensively;	transport bureau, traffic	construction	g funds	residents' feedback;
perat	management	⁽²⁾ Road maintenance should be conducted normally and regularly;	police brigade,		relevant instituti	2) Residents' feedback on road maintenance;
tion a	and damage	innovative ways;	women's federation,		ons	3) Frequency of traffic safety publicity and residents'
nd n	③Lack of safety	(4)Violators should be punished; For special groups:	county bus company.			feedback;
nana	among the public	 Traffic safety training for old people, women and children 	PMO,			4) Punishment records;
gem		should be strengthened, and a special brochure prepared for	governments,			5) Brochure;
ent		 Traffic safety video should be played for women and old people at community activity centers to improve their traffic awareness. 	traffic safety action teams			6) Video

Appendixes

Appendix 1: FGD Minutes

FGD 1: FGD in Shangyu Village, Dandong Sub-district

Date: October 24, 2014 Venue: village old people's activity place Participants: 4 villagers of Shangyu Village Key points:

1. Public transportation system: Buses are limited and very small. Old people aged above 60 years may take a bus to Dancheng for free. Buses from Juexi to Danxi are too fast and unsafe, and there is almost no seat during the peak times. We take a bus to buy food, or take grandsons and granddaughters to and from school. The time of the last bus run is too early (6:00 pm). We usually wait for buses on the roadside, and get to the bus stop after 10-20 minutes of walk.

2. Roads: We are satisfied with the overall traffic situation, but overloaded trucks are likely to damage the pavement. Roads should be wide enough to prevent congestion. Traffic publicity should be strengthened in the future, because passengers are old people and children mainly who have weak safety awareness.

3. Women: Women's status is very high. Most women work, some running stores and some working at enterprises, such as Tian'an Group in Dancheng Industrial Park. Their monthly pays are over 3,000 yuan. All of them go to and from work by electric bicycle.

FGD 2: FGD in Danxi Sub-district Happy Garden

Date: October 24, 2014

Venue: community activity room

Participants: 4 community residents

Key points:

1. Roads: The overall traffic situation is okay, but several roads are too narrow and should be broadened. There is no crosswalk, which is very dangerous for those crossing the road. Taxies drive too fast. Those running red lights are mostly non-local people, while local people observe the traffic rules very well.

2. Buses: Buses are too small but quite clean. Bus waiting times are too long. Many people who work in Shipu have to spend about two hours on the road every day. A bus route from Shipu to Juexi Sub-district is preferred, which will eliminate the need for bus transfer at the East Coach Station. We take bus very frequently to buy food, almost once a day, because food here is very expensive. Buses are very crowded in the morning and evening peak times. The fare for a single trip is 4 yuan (transfer needed). The bus stop is too far away, and has no seat and canopy.

Appendix 2: Interview Minutes

Interview 1: Villager interview in Hexi Village, Dandong Sub-district

Venue: Hexi Village Committee

Date: October 24, 2014

Interviewee: village secretary

Key points:

Personal information: male, 49 years, village secretary

1. Basic information: Hexi Village has over 90 households with over 300 persons, and some irrigated land, used to grow vegetables. There is a collective plant.

2. Traffic: The overall traffic situation is okay. A school is next to the food market, where traffic is very congested when parents pick up students after school. The road should be broadened to relieve congestion. Traffic accidents are infrequent in general.

3. Public transportation system: I usually go out by electric bicycle, mainly because it is inconvenient to take a bus. I usually take a bus to visit relatives in Juexi Sub-district. Although taking a bus is troublesome and involves transfer, there was even no bus in the past. Although it is convenient to go out by electric bicycle, it is unsafe.

4. Personal background: I work at Tian'an Electric Company, which has a workforce of over 3,000, of which almost half are women. Most workers are from Dandong Sub-district and other parts of Xiangshan County, and there are also workers from other provinces. My monthly pay is 4,000-5,000 yuan.

5. Women's status: Currently, women enjoy the same or even slightly higher status as men, and better benefits, such as a gift and one day off on Women's Day.

Interview 2: Resident interview in Yaolin Community, Danxi Sub-district

Venue: Yaolin Community Committee Date: October 23, 2014 Interviewee: resident of Yaolin Community

Key points:

Personal information: female, 50 years, Han, primary school education, rural status, unemployed, annual household income 60,000 yuan (below the local average), not entitled to social security

1. Utilization of public transportation: Due to my age and my family's financial status, I go out by foot and bus mainly. The community has a hospital, a food market and other public infrastructure. I take a bus at least once a day to buy daily necessities and pick up my grandson from school. Bus waiting times are 10-20 minutes, and a single trip takes about 10 minutes. The bus route runs through urban truck and secondary truck roads, such as Tian'an Road, Danfeng Road, Laixun Road and Xinfeng Road.

2. Comments on public transportation: I'm quite satisfied with the current situation of urban public transportation, though my needs cannot be met sometimes. After all, urban public transportation does not serve any single one, and cannot meet everyone's needs.

The current road traffic condition is satisfactory, and congestion occurs in the morning and evening peak times only, so there is no need for road broadening.

There are many bus routes nearby, but it takes 15-20 minutes to walk to the nearest bus stop. In most cases, I cannot get to a destination without transfer. Bus runs are irregular and infrequent, and waiting times are long. Bus interiors are largely okay, and the compartment is congested in the peak times only.

3. Public participation: I have not heard of this project, because I have no time and interest to participate in public affairs. Information is usually communicated by the community committee. Most participants of community meetings are housewives like me, but our opinions are rarely taken seriously.

4. Comments on the Project: I support the Project, and expect that bus runs be more frequent and bus routes be rationalized.

Interview 3: Interview in Wenchang Street

Venue: Wenchang Street

Date: June 6, 2014

Interviewee: storekeeper of a store on Wenchang Street

Key points:

1. Introduction: Wenchang Street has not changed much in the past decade, and was repair 5 years ago. In the past, each store had to pay a management fee of tens to over 100 yuan per month to the business administration office. Currently, each store has only to pay a cleaning charge of 10 yuan per month. The annual rental of a store is 70,000 yuan, which has remained stable and even dropped slightly this year due to market depression.

2. Opinion on seats: Seats at bus stops are good, but must be maintained, otherwise they cannot function properly.

3. Opinion on non-motor vehicle parking: There are parking spaces indicated by white lines on the street, but vehicles are parked disorderly, because no one is in charge here.

4. Store operation: My store sells knitwear around the year, but the business has been stagnant in recent years due to the impact of online shopping. There are more customers at weekends only.

5. Goods supply: Goods are purchased from Yiwu City in Zhejiang Province, delivered here through the depot in Xiangshan County, and carried into stores by tricycle.

6. Needs: Canopies and sunshades should be preferably unified during road construction to create a beautiful appearance.

Interview 4: Interview with the headmaster of Nandan Road Experimental Primary School

Venue: Xiangshan Experimental Primary School Date: June 6, 2014 Interviewee: Headmaster Li Key points:

1. Basic information: Our school has 2,614 students and 128 teachers. There is an internal car park with about 60 parking spaces. Most teachers park their cars in the school, and the current parking spaces are slightly insufficient. Students of different grades leave school at different times, when the south and north gates are open simultaneously, and students are guided by security guards and traffic wardens. Both gates are congested when school is over.

2. South gate: The road beside the south gate is narrow, and there are other schools on this road, so traffic is very congested in the peak times.

3. North gate: Traffic around the north gate is relatively good, because there is a car park there. However, when most parents drive private cars on rainy days, this place would be very congested. The green belts on Dannan Road should be narrowed so that students can line up and parents can park their cars temporarily here.

4. Nearby schools: Binhai Kindergarten (private) is located east of the south gate, and Experimental Junior High School (public) west of the south gate. Binhai Junior High School (private) has rented a teaching building of Experimental Junior High School. There is no car park in Experimental Junior High School, so that its teachers can only park cars along the road or on the open space close to the south gate, thereby affecting vehicle traffic greatly. It is expected that the stadium of Experimental Junior High School will be rebuilt this summer, and its gate will be opened on Danyang Road, thereby making some land available for the construction of a car park. By then, Binhai Junior High School will be relocated back to its former campus. Afterwards, traffic pressure at the south gate of our school will be relieved to some extent.

5. Traffic safety publicity: Routine publicity activities include head teacher instruction, Monday assembly publicity, broadcast reminder ("One Minute Safety"), traffic safety knowledge contest, letter for parents, etc.

6. Suggestions: The green belts on Dannan Road should be narrowed and the sidewalks broadened.

Appendix 3: Fieldwork Photos





Fieldwork at Wenchang Street

Fieldwork at Wenchang Street