

**Shandong Hai River Basin Pollution Control
ADB-financed Project**

**Pilot and Demonstration Activities of
Community Action in Hygiene Promotion**

Mid-term Report

Shandong Provincial Project Management Office, P.R.C.

Shandong Provincial Construction Development Research Institute

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1. Background

Both Chinese Government and Shandong Provincial Government pay much attention to the Hai River Basin pollution control. The Shandong Hai River Basin pollution control project under implementation is one important part of a series of ADB-supported Hai River Basin pollution control activities, totaling 9 subproject components, composed of Binzhou WWTP, Gaotang WWTP, Shanghe WWTP and Linqing WWTP; Linyi Solid Waste Management, Zouping Solid Waste Management, Linqing Solid Waste Management; Gaotang Quanlin Paper Group WWTP and Linyi Changyuan Paper Co., Ltd. WWTP.

This project shall solve the water pollution problem caused by domestic wastewater, solid wastes and papermaking industry in 6 counties (cities) of Shandong. To implement the project can protect the drinking water sources; improve the polluted water control of Shandong Hai River Basin area, improve the water quality of Hai River Basin; reduce the impact of solid wastes on environment; increase the wastewater reuse capability, improve the urban environment and promote the economic development capacity of the area.

In order to maximize the health benefit from the Shandong Hai River Basin pollution control project, especially improve the public health awareness and environmental protection ability of the residents of the communities in the project areas. With the assistance of Asian Development Bank, Shandong Provincial Project Management Office has organized the implementation of the Pilot and demonstration activities of community action in hygiene promotion, which main objective is to choose 10 communities of Zouping, Shanghe and Gaotang counties from the Shandong Hai River Basin pollution control project to launch the pilot and demonstration activities; in line with the concrete conditions of three pilot counties and different characteristics of the project, train the communities' leaders and people in the project areas and conduct the awareness campaign with respect of public hygiene on a planned basis, raise the public hygiene and environmental protection awareness of community residents, encourage them to participate in the community's public health practice actively, improve the environmental hygiene control condition of the project areas and realize the health benefits from the implementation of the Shandong Hai River Basin pollution control project. Through the pilot and demonstration activities, one complete set of working experiences and innovative mechanism for encouraging the community residents to participate in the public health practice actively and improving the environmental hygiene status of the project areas is developed and established, so as to be replicated and implemented.

2. Setting up of leading organization

In order to strengthen the organization leadership, define clearly division of responsibility and guarantee the smooth implementation of the pilot demonstration activity, Shandong Construction Department and Shandong Provincial Project Management Office has set up the leading group, the panel of experts and the work team for the pilot & demonstration activities. They are responsible for the organization and coordination, technological guidance and implementation of the activities respectively. Three pilot counties established the leading

group for the pilot demonstration activities and fixed the implementing organizations and staff members, with the details as follows:

2.1 Provincial leading group of pilot and demonstration activities

It is responsible for integrated planning and coordination of the project, with a list of members as follows:

Position	Name	Unit
Group leader	Lu Xiaodong	Director of General Finance Division, Shandong Construction Bureau Deputy director of Shandong Provincial Project Management Office
Deputy group leader	Meng Daming	Deputy director of General Finance Division, Shandong Construction Bureau
Deputy group leader	Zhu Hongxiang	President of Shandong Construction Development Research Institute
Member	Zhao Huaichen	Deputy chief executive of Zouping County
Member	Tao Jiaqiang	Deputy chief executive of Shanghe County
Member	Zang libang	Deputy chief executive of Gaotang County

2.2 Provincial Panel of experts for pilot and demonstration activities

It is in charge of technical guidance of program design, health service training and monitoring and evaluation of the project, with a list of personnel as follows:

Position	Name	Unit and occupation
Leader	Li Bo	Director-level officer of Shandong Project Management Office
Social development expert	Li Shanfeng	Director, Sociology Institute of Shandong Academy of Social Sciences
Health service training expert	Lei Jie	Section chief of Operation Section of Shandong Provincial Center for Disease Control and Prevention
Monitoring & evaluation expert	Zuo Zhenhua	Deputy director general of Shandong Statistics Bureau

2.3 Provincial Work team of pilot and demonstration activities

Shandong Construction Development Research Institute as cooperative partner, entrusted by Shandong Provincial Project Management Office, undertakes the organization and

implementation of the pilot and demonstration activities. It appoints the personnel concerned to set up the work team of project specially, with a list of members and division of work below:

Position	Name	Unit and occupation post	Responsibility
Group leader	Zhu Hongxiang	President, Shandong Construction Development Research Institute	Officiating at coordination
Standing deputy group leader	Zhang Yuzhao	Section chief, General Finance Division of Shandong Construction Department	Organizing coordination
Deputy group leader	Sun Zenggui	Deputy president, Shandong Construction Development Research Institute	Organizing implementation
Member	Lei Gang	Section chief, Shandong Construction Development Research Institute	Writing out reports
Member	Fan Xueping	Section chief, Shandong Construction Development Research Institute	Field investigation
Member	Ji Ming	Engineer, Shandong Construction Development Research Institute	Field investigation and interpretation
Member	Wu Xianhua	Engineer, Shandong Construction Development Research Institute	Field investigation and monitoring & evaluation
Member	Wang Zhiyan	Engineer, Shandong Construction Development Research Institute	Field investigation and training and publicity

2.4 Organizations of the pilot counties

a) Zouping County

Position	Name	Unit and occupation
Group leader	Zhao Huaichen	Deputy chief executive of Zouping County
Deputy group leader	Miu Wenqing	Chief executive assistant of Zouping County
Member	Han Xiangshui	Director of Zouping County Construction Bureau
Member	Jia Xuegang	Director of Zouping County Administrative Law Enforcement Bureau of City Management
Member	Ma Xingwu	Director of Zouping County Health Bureau
Member	Cui Yunxiao	Director of Zouping County Environmental Protection Bureau
Member	Zhang Hongjian	Director of Zouping County Development and Reform Bureau
Member	Teng Zhigang	Director of Zouping County Civil Administration Bureau
Member	Zhang Baowu	Party branch secretary, Daixi Subdistrict Office

Member	Li Luwei	Party branch secretary, Huangshan Subdistrict Office
Member	Li Ming	Party branch secretary, Gaoxin Subdistrict Office

The leading group has an office, based in the Zouping County Administrative Law Enforcement Bureau of City Management. The director of the office is held concurrently by Jia Xuegang.

b) Shanghe County

Position	Name	Unit and occupation
Group leader	Tao Jiaqiang	Deputy chief executive of Shanghe County
Deputy group leader	Cheng Xiulin	Vice director, Administrative Office of Shanghe County Government
Deputy group leader	Han Fujie	Vice director, Administrative Office of Shanghe County Government
Member	Zhao Guangren	Vice director of Shanghe County Construction and Management Bureau
Member	Wang Jinye	Vice director of Shanghe Water Resources County
Member	Xia Rongbao	Vice director of Shanghe County Environmental Protection Bureau
Member	Duan Guanglei	Vice director of Shanghe County Health Bureau
Member	Wang Duguo	Vice director of Shanghe County Environmental Sanitation Administration Bureau
Member	Zong Yijun	Vice director of Shanghe County Comprehensive Urban Management Enforcement Bureau
Member	Li Shouqi	Vice director of Shanghe County Radio and TV Bureau
Member	Zhang Yuanxiang	Vice director of Shanghe County Statistics Bureau

The leading group is based in the Preparation Office of Wastewater Treatment Project of the county. The director of the office is held concurrently by Cheng Xiulin.

c) Gaotang County

Position	Name	Unit and occupation
Group leader	Zhang Libang	Deputy chief executive of Gaotang County
Deputy group leader	Yin Zuozheng	Director of Gaotang County Environmental Protection Bureau
Member	Xu Chuantong	Deputy director of Gaotang County Environmental Protection Bureau
Member	Zhang Lifang	Deputy director of Gaotang County Environmental Protection Bureau
Member	Sun Xinhua	Director, Discipline Inspection and Supervision Office of Gaotang County Environmental Protection Bureau

The work team has an office, concretely responsible for the organization and

implementation of the work. The director of the office is held concurrently by Yin Zuozheng.

3. Scope of pilot activities

Through the informal discussion with 9 Shandong ADB-financed subproject units and the field review and investigation, the provincial work team selected 3 project counties with stronger representativeness and typicality as pilot county based on the different characteristics of the subproject components, which are Zouping County (solid waste management), Shanghe County (domestic wastewater treatment) and Gaotang County (industrial wastewater treatment).

The pilot communities are fixed with the recommendation of the pilot counties and then determination of the Provincial Project Management Office. 8-10 communities are nominated respectively by three pilot counties depending on the affected areas and the environmental hygiene status of the project, totaling 28 candidate communities. The provincial project work team made the field review and investigation of the 28 communities recommended by the pilot counties to select as pilot community 10 communities (villages, enterprises) with relatively intensive resident population and different public environmental hygiene status, which was submitted to ADB in the Inception Report. Following the opinions from the ADB experts, 10 pilot communities are determined finally after changing both Shiji Garden and Nanfan Village of Zouping County to Zhongxing Community and Dongguan Village. The concrete conditions of the pilot communities are described as follows:

Zouping County (3 pilot communities):

a) Cotton Mill Living Quarter: Located in the old town of the county, with relatively normative property management and relatively complete sanitation facilities. There are 1500 households, 6000 residents and 6 cleaners. The public environmental hygiene status is general.

b) Zhongxing Community: Situated in the old town of the county, in possession of 2032 residents, being incomplete in environmental sanitation facilities, provided with cleaners, poor public environmental hygiene status.

c) Dongguan Village: being in the old town of the county, with 570 households, 1700 residents and 5 cleaners; unsound in management, poor in public environmental hygiene status.

Shanghe County (3 pilot communities)

a) Haomen Garden Quarter: Situated in the northwestern part of the county town, with 400 households, more than 1000 residents, and in possession of some environmental sanitation facilities now, better public environmental hygiene status

b) Xinyuan Quarter: Located in the northeast of the county proper, with 780 households and over 2400 residents, both the environmental sanitation facilities and general public environmental hygiene status

c) People's Hospital Quarter: occupying the west of the county proper, in possession of

300 households and above 800 residents, with general environmental sanitation facilities and relatively bad public environmental hygiene status

Gaotang County (4 pilot communities)

a) Tralin Paper Co., Ltd.: Locating 3 kilometers from the north of the county proper, covering an area of 656 mu, with 11000 employees; being papermaking and mixed fertilizers production enterprise; complete wastewater treatment plants in the factory boundary; entirely up-to-standard discharge of treated production and domestic wastewater

b) Xipu Village: being 4 kilometers from the north of the county, occupying a living space of 150 mu, with 186 households, and 710 villagers, better public environmental hygiene status

c) Dongcui Village: 7.5 kilometers from the north of the county, covering a living space of 160 mu, with 185 households, and 567 villagers, general public environmental hygiene status

d) Shiwulipu Village: 7.5 kilometers from the north of the county town, with a living space of 245 mu, with 170 households, and 551 villagers, relatively bad public environmental hygiene status

4. Convening of coordination meeting

The baseline investigation should be finished in January of 2007 and the training and awareness campaign, from March to May 2007, as planned in the Inception Report. Because those implementing units of the pilot counties are the ones that carry out the pollution control ADB-financed projects that are in the early stage of construction, and are very busy, the completion of the baseline survey and investigations was delayed until May-June 2007; and the training and awareness campaign, June-September of 2007.

From April 25 to 26, 2007, the provincial work team of pilot and demonstration activities organized three pilot counties to hold the meeting of coordination for the pilot activities respectively. The meeting was presided over by group leader Zhu Hongxiang, president of Shandong Construction Development Research Institute. Total 20 personnel composed of included the members of the leading group, panel of experts and work team; deputy chief executives of pilot counties and personnel of sponsor of the pilot activities attended the meeting. A Plan of implementation of pilot and demonstration activities was studied, revised and adopted at the meeting. And at the same time, the concrete planning and arrangement of the next pilot activities were made and definite requirements for the activities, put forward. First, fully recognize the significance of launching the pilot and demonstration activities; second, pay attention to the organizational implementation to guarantee the smooth development of the activities; third, make sure to complete the activities with high quality and high level.

5. Carrying out of baseline survey and investigation

5.1 Establishment of the baseline survey and investigation program

For the purpose of guaranteeing the scientificity, accuracy and rationality of the

investigation, the provincial work team developed the baseline survey and investigation program under the guidance of the provincial panel of experts. The program covers the purpose, approach, content, respondents, sampling size, implementation scheduling and data processing etc. mainly. The concrete content has been already described in the Inception Report. Prior to the investigation, we have revised and improved the program on the practical situation basis.

5.2 Preparation of questionnaires

The work team prepared three different kinds of baseline questionnaires under the guidance of the panel of experts on the basis of different characteristics and actuality of three pilot counties. The first kind is the baseline questionnaires of the pilot county, covering the water resources and public environmental hygiene status of the pilot counties, solid wastes and wastewater disposal status of the pilot counties and their impact on the environment, local residents' living standard and health status, information on diseases related to the water resources. The second is the baseline questionnaires of the pilot community, including the geographical location, area, population, household quantity and sanitary facilities, cleaners and management system construction and current management state of the pilot community. The third is the sampling questionnaires of community residents, mainly covering the community public environmental hygiene status, residents' public environmental hygiene awareness, public environmental sanitary behavior and status of residents participating in the public environmental hygiene activity. The concrete content has been already described in the Inception Report. Prior to the investigation, we have revised and improved the program based on the practical situation.

5.3 Implementation of the baseline investigation

For reasons of guaranteeing the accuracy and dependability of the baseline investigation data, the provincial work team conducted the training of the personnel from three pilot counties, who participate in the investigation, according to the plan and arrangement as given in the Program of Implementation of pilot and demonstration activities before the investigation. During the work, the team sent the personnel to carry out the whole-process field tracking guidance and purchase the souvenirs of the pilot activity in a unified manner for giving the respondents. The details are as follows:

a) Zouping County

In the afternoon of May 11, 2007, the training course of the baseline investigation was held in the meeting room of Zouping County Administrative Law Enforcement Bureau of Urban Management to implement the training of 24 personnel concerned from the bureau and three pilot communities. At the meeting, Li Hongwei, deputy director of Zouping County Administrative Law Enforcement Bureau of Urban Management introduced the solid wastes treatment project and the overview of the activities; and Sun Zenggui, vice leader of provincial work team, presented the purpose and meaning of the activities and put forward the clear requirements for the baseline investigation. From May 13 to 14, the members of the county's work team of pilot activities were divided into three groups to conduct the in-door sampling survey among 772 households of the pilot communities, in which there were 305 in Cotton Mill Living Quarter, 229 in Dongguan Village and 238 in Zhongxing Community.

b) Shanghe County

On June 12 2007, the provincial work team called together 12 persons in charge and personnel concerned from three communities of People's Hospital Quarter, Xinyuan Quarter and Haomen Garden Quarter in the conference room on the second floor of Shanghe County Government Building for training in terms of the baseline investigation. Tao Jiaqiang, head of county leading group and deputy chief executive of Shanghe County, attended the meeting to give an important speech. On June 14, the county's work team organized the concerned personnel of the communities to realize an the in-door sampling investigation among 622 households of 3 pilot communities in total, in which there are 196 in Haomen Garden Quarter, 258 in Xinyuan Quarter and 168 in People's Hospital Quarter. It took 5 days in People's Hospital Quarter, 8 days in Xinyuan Quarter and 11 days in Haomen Garden Quarter to make the survey. All questionnaires were taken back on June 25.

c) Gaotang County

On May 18, 2007, the provincial work team conducted the training of 14 personnel from the county environmental protection bureau and 4 pilot communities of Quanlin Paper Group, Xipu Village, Dongcui Village and Shiwulipu Village in the meeting room of Gaotang Wastewater Treatment Plant with respect to the baseline investigation program, methods and precautions. In the last ten days of May, the Gaotang county's work team organized the persons to implement the in-door sampling investigation of the residents from the pilot communities, which took 10 days to investigate 539 households (person) in total, including 172 persons of Quanlin Paper Group; 125 households of Xipu Village, 124 households of Dongcui Village and 118 households of Shiwulipu Village.

5.4 Collection and analysis of information

The provincial work team has set up the database of the project beneficiaries and other interest-related groups on the basis of the information gathered from the baseline survey and carried out the data analysis and the evaluation of the environmental hygiene awareness of the beneficiaries and the current community environmental hygiene situation, so as to have laid a solid foundation for developing the training materials and public awareness raising materials.

5.5 Summary of the baseline investigation

In order to guarantee the scientificity, accuracy and rationality of the investigation, the provincial work team developed the Baseline Survey and Investigation Program under the guidance of the provincial panel of experts. As required in the Program, the work teams of the pilot counties chose 1933 households (persons) from 5063 households (persons) of 10 pilot communities for the indoor investigation under the direction of the provincial work team. In case of doing the job, most of residents participated in this activity positively, cooperated the investigation in earnest and gave the relevant information and data faithfully, but a few residents did not pay close attention to such activities or worried to be concerned with the individual privacy, so unwilling to coordinate. In such case, the survey groups would give patient interpretation to the residents, or change other residential households, thus finishing the investigation to guarantee 95% of confidence and not more than 5% of absolute error in the sampling investigation. Meanwhile, the basic situations of the pilot communities and countries and related information and data about environmental hygiene, wastewater, solid wastes and diseases were surveyed, which will provide the basis for the developing of the training materials, awareness materials and films in the future. Refer to the Annex for the

analysis report of collected investigation data.

6. Community hygiene public awareness training

6.1 Developing of training materials

On the baseline investigation and in combination of the practical situation, the provincial work team set up the developing group of training materials, composed of the experts concerned, to write a book called Environmental hygiene and residents health. The materials cover mainly the relation of environmental hygiene with residents health, hazard caused by environmental pollution, significance and basic approaches of environmental protection, channels to seek for legal protection and governmental support and public participation, etc., presenting the better systematicness, pertinence and practicability

10000 books of teaching material were printed totally. In addition to providing the trained residents as training materials, the books as popular science teaching materials were distributed with the publicity materials.

6.2 Training of community residents

In order to guarantee the training quality and effect, the provincial work team conducted the training of the members of work team of three pilot counties, leaders and backbones of the pilot communities respectively in accordance with the Program of implementation of pilot and demonstration activities and the carried out the field tracking guidance of the residents training activity. The details are as follows:

a) Zouping County

On August 23, 2007, the provincial work team organized and held a training course of the Zouping County pilot and demonstration activities of community action in hygiene promotion in the meeting room of Zouping County Administrative Law Enforcement Bureau of Urban Management. The centralized study and training of 24 personnel from the county's work team and pilot communities and then discussion of the plan of community action in groups were realized. On the training course, passing on of the request for the provincial pilot activities, introduction of the purpose, content, function and significance of the pilot and demonstration activities of community action in hygiene promotion and the overview of Shandong ADB-financed pollution control project, concrete arrangement of the works in the stages of training and awareness campaign, explanation of the knowledge about water saving and solid wastes classification and at the same time, centralized watching of awareness raising films concerning pilot and demonstration activities of community action in hygiene promotion were implemented.

The work team of the county organized the training of the residents of Cotton Mill Living Quarter of Huancui Community, Dongguan Village of Dongming Community and Zhongxing Community two times respectively on September 3, 9, 10, 16, 17, 23, 24 and 30, 2007. The lessons were given by the trained members of the group of community action. The residents participating in the training are up to 800 man-times.

b) Shanghe County

On August 23, 2007, the provincial work team organized and held a training course of the Shanghe County pilot and demonstration activities of community action in hygiene promotion in the conference room of Shanghe County Government Building. Total 20 related personnel from the county's work team and pilot communities participated in the centralized study and training. On the training course, passing on of the request for the provincial pilot activities, introduction of the purpose, content, function and significance of the pilot and demonstration activities of community action in hygiene promotion and the overview of Shandong ADB-financed pollution control projects, concrete arrangement of the works in the stages of training and public raising awareness and at the same time, centralized watching of public raising awareness films concerning pilot and demonstration activities of community action in hygiene promotion were realized.

The work team of the county carried out the training of 700 or more residents of Haomen Garden Quarter, People's Hospital Quarter, and Xinyuan Quarter on August 22, 23, 24, 2007, respectively. In Haomen Garden Quarter, the members of the work team of the county conducted the training of over 200 residents and working personnel of the quarter with respect to the Environmental Hygiene and Residents Health, the laws and regulations of environmental protection and the ADB-financed environmental protection project in the vacant storefront house along the street. In People's Hospital Quarter, the leading official of the hospital trained 300 residents and staff members of the office of hospital in multimedia meeting room in terms of the Environmental Hygiene and Residents Health by playing back the corresponding slide shows. In Xinyuan Quarter, the staff members of the work team of the county and leaders of the property company implemented the training of 200 residents and property managing personnel in the meeting room of the property company with respect to the Environmental Hygiene and Residents Health, the laws and regulations of environmental protection and utilization of ADB loans to construct the wastewater treatment plant.

c) Gaotang County

On June 22, 2007, a training course was held in the big conference room of Gaotang County Environmental Protection Bureau, in which 20 staff members of the environmental protection bureau and leaders and backbones from 4 communities participated. The experts with the provincial work team gave the lessons concerning the relation of the environmental hygiene with resident health, hazard of environmental pollution, significance and basic approaches of environmental protection, channels of seeking for law protection and governmental support and public participation.

From June 23 to 24, the work team of the county held the training course in which total 750 community residents took part. 400 leaders and employees of the Quanlin Paper Group were given training in the conference room of the group with respect to environmental protection, energy conservation and emission reduction. More than 300 villagers of Xipu Village, Dongcui Village and Shiwulipu Village were trained in terms of general knowledge of environmental hygiene, environmental protection knowledge and reduction of discharging rubbish and domestic wastewater into the riverway to avoid secondary pollution.

6.3 Summary of the training

On the baseline investigation and in combination of the practical situation, the provincial work team set up the developing group of training materials, composed of the experts concerned, to write a book called Environmental hygiene and residents health. This offers the teaching materials with stronger presenting the better systematicness, pertinence and

practicability for the training. As required in the Program of implementation of pilot and demonstration activities, the provincial work team conducted the training of the county and community-level leaders concerned and working backbones of the pilot communities in three pilot counties respectively and the pilot county work teams carried out the training of the community residents, totaling 2200 person-times, about 15% of residents in 10 communities, having raising the environmental hygiene awareness and capability of the residents greatly. In the course of the training, most of residents took part actively in the training and put forward a lot of good suggestions and opinions. However, individual residents thought that environmental hygiene is the business of the community administrative department and property management company and has nothing to do with individuals and families. So they are not passionate in training participation. This needs to give wide publicity of the relation of environmental hygiene and family in the further awareness campaign so as to raise the participation awareness of the residents and set up the concept that the comprehensive management of environmental hygiene needs to be implemented by all people and that sharing can be realized through co-creation.

7. Awareness campaign

7.1 Developing of awareness raising materials

On the baseline investigation basis and depending on the actuality of the pilot counties, the provincial work team employed the advertising planning company to design and produce the leaflets for the pilot activities, on which there are the overview of ADB-financed pollution control project, purpose and significance of the pilot activities, knowledge of water saving and solid wastes classification and awareness campaign slogans of environmental protection. The leaflets are concise, vivid, and strong in fascination and impact. 30000 copies of leaflets were printed totally.

7.2 Making of awareness raising billboards

Depending on different types and characteristics of three pilot counties, the provincial work team employed the advertising planning company to design and make 12 different billboards, showing the overview of ADB-financed pollution control project, purpose and significance of the pilot activities, disease prevention, knowledge of water saving and solid wastes classification and awareness raising slogans of environmental protection. The pilot counties hung the billboards based on the concrete conditions of the pilot communities.

7.3 Production of DV disks

For reasons of making the awareness campaign be more rich and varied, combine sound and pictures and reach good dynamic effect, the provincial work team employed the advertising planning company to design and produce DV films, presenting the current situation of environmental pollution and the hazard on human health, the current situation of Hai River Basin pollution and overview of environmental pollution control project, the purpose and significance of the pilot and demonstration activities of community action in hygiene promotion, and the channels and approaches of government, community and residents participation in environmental protection. 10000 DV disks made were distributed together with the awareness raising materials to the residents.

7.4 Launching of rich and colorful awareness campaign

Under the guidance and supervision of the provincial work team, three pilot counties

launched the various, rich and colorful and vigorous awareness campaign depending on the actuality respectively, with the details as follows:

a) Zouping County

In Cotton Mill Living Quarter of Huancui Community, Dongguan Village of Dongming Community and Residential Quarter of Zhongxing Community are set up 2 billboards of the pilot and demonstration activities of community action in hygiene promotion for Zouping County ADB-financed project (totaling 6 billboards) on September 6, presenting the objective and content of the activities, the progress of Zouping solid wastes management project and the knowledge of environmental pollution and environmental protection.

As scheduled, the movie and special topic publicity films were played back in three communities at night of September 6, 9, 12, and September 18, 20, 22 in three communities separately. 1200 persons watched the films. At the same time the awareness raising materials and over 2000 DV disks were distributed.

5 awareness campaigns concerning the environmental hygiene and health were implemented by utilizing the Zouping country fair and Dongguan farm products market. 7000 copies of awareness raising materials on environmental protection were distributed to the correlative enterprises and institutions within the project area for three times, improving the residents' awareness of environmental hygiene and changing the hygiene behavior consciously.

In line with the practical situation of the communities, the special topic awareness campaigns were held, consisting of the "Protection of environment and beautification of home" of Cotton Mill Living Quarter of Huancui Community, the "To save every drop of water starts from me" of Dongguan Village of Dongming Community, the "Let environmental protection come into the community" of Zhongxing Community, which promotes thoroughly the development of the awareness campaign and gains the effect of the "Environmental protection occupying the hearts of the residents" through the publicity and education really.

Since the launching of the activities, Zouping TV Station, Radio Station and Today Zouping (internal newspaper) have utilized the such programs as "Window of Urban Management", etc. for broadcasting 15 pieces of news respectively to conduct the follow-up report for the activities, so letting all circles of the society and the public to fully understand the importance of the activities, and achieve the better awareness raising effect of the pilot and demonstration activities of community action in hygiene promotion.

b) Shanghe County

After the completion of the training, the personnel participating in the training sent nearly 2000 copies of publicity materials in the communities and explained the materials to the residents.

The work team of the county carried out an awareness campaign on the street in terms of the environmental hygiene, resident health and construction of the wastewater treatment plant by using ADB loans; and distributed 3000 copies of awareness raising materials on the site. Additionally, 5000 copies of the materials were sent to the units under the control of county government, schools and sub-district offices.

There are 8 billboards set up in three pilot communities, in which 2 billboards are in Haomen Garden Quarter; 3, in People's Hospital Quarter; and 3, in Xinyuan Quarter.

The county TV Station conducted the special topic report concerning the utilization of

ADB loans for construction of the wastewater treatment plant and environmental hygiene.

c) Gaotang County

In July, the work team of the county implemented the awareness campaign with the theme of community environmental hygiene and health in four pilot communities of Quanlin Paper Group, Xipu Village, Dongcui Village and Shiwulipu Village, distributed 6000 copies of awareness raising materials and 4000 copies to the related enterprises and institutions, schools and subdistrict offices.

There are 20 billboards set up in four pilot communities of Quanlin Paper Group, Xipu Village, Dongcui Village and Shiwulipu Village (5 billboards for each community).

In order to enlarge the publicity, a one-week awareness campaign was conducted by playing back the video film “Paying close attention to environmental hygiene and improving the health awareness of residents” on the large screen of Jincheng Square in Gaotang Country.

7.5 Summary of the awareness campaign

In order to guarantee the quality and effect of the awareness campaign, the provincial work team designed and made the vivid awareness raising materials, films and billboards. Under the direction and supervision of the provincial work team, three pilot counties launched various, rich and colorful and vigorous awareness campaign depending on the local actuality respectively. First, the campaigns with the topic of energy conservation and emission reduction, environmental protection and taking care of home were carried out; the slogans, hung; the awareness raising materials and DV disks, released in the pilot communities. Second, the billboards concerning the brief introduction of pollution control project, solid wastes classification, and water saving are hung in the pilot communities. Third, the awareness campaigns about environmental hygiene were held in the agricultural and trade markets and the place where the residents gather and the awareness raising materials were released. Forth, TV, newspaper and other media were utilized for special topic report. The various campaigns could raise the environmental hygiene awareness of the residents, and let them master the knowledge of solid wastes classification and water saving, gaining the good effect. However, the formation of many fine behaviors of residents needs the test of time. A long-efficiency mechanism needs to be established. This will be paid close attention to in the next policy dialogue and in the course of mechanism establishment.

8. Monitoring and Evaluation

The provincial work team developed the Outline of Monitoring and Evaluation Report and sent the personnel in time to conduct the guidance of and supervision over the activities of the pilot counties in the stages of the baseline investigation, training and awareness campaign in order to guarantee the quality and result of the activities. The supervision and inspection and subsequent monitoring and evaluation will be elaborated in the Final Report of the pilot activities.

8.1 Outline of Monitoring and Evaluation Report

8.1.1 General

- a) Background
 - b) Objective
 - c) Content
 - d) Purpose of monitoring and evaluation
- 8.1.2 Supervision over project implementation (Description of the implementation)
- a) Baseline investigation
 - b) Awareness campaign
 - c) Training of community leaders and residents
 - d) Policy dialogue and public participation
- 8.1.3 Evaluation of awareness raising effect
- a) Wide awareness campaign
 - b) Training of community leaders and residents
 - c) Policy dialogue
- 8.1.4 Evaluation of community drive development
- a) Survey of community drive development
 - b) Problems and way
 - c) Evaluation and explanation
- 8.1.5 Basic conclusion of supervision and evaluation
- a) Opinions on supervision
 - b) Basic conclusion of project effect evaluation
 - c) Evaluation for referential contents
 - d) Overall evaluation and explanation
- 8.1.6 Suggestion for improvement
- a) Improvement to be made
 - b) Sustainable suggestions
 - c) Suggestions for the next action of the project

8.2 Next arrangement of work

In accordance with the Outline of Monitoring and Evaluation Report, the provincial work team will organize the experts to realize the monitoring and evaluation of the training, awareness raising effect and establishment of policy dialogue and community drive mechanism at the end of December of 2007, and put forward the suggestions and opinions.

9. Setting-up of policy dialogue and mechanism

The establishment of the policy dialogue and mechanism covers the environmental hygiene management and evaluation, wastewater and solid wastes collection and transportation, water system planning and development, clean river water retaining, legal support for community participation and fund raising. During the period of the baseline investigation, training and awareness campaign, the provincial work team arranged the personnel of the departments concerned, community leaders and representative of residents in the pilot counties to hold the discussions many times, resulting in knowing about the common people's will, responding to the questions put forward by them, holding the direct policy dialogue between the government and common people concerning the comprehensive environment management of the communities, environmental hygiene and setting up of the mechanism, and establishing the policy dialogue platform among the government and community residents. In the phase of the monitoring and evaluation, all kinds of discussions will be held to carry out the communication in terms of keeping the community clean and environmental hygiene, and the community drive and development mechanism, so as to develop and set up a set of development mechanism driving the community action in hygiene promotion. This part of content will be elaborated in the Final Report.

Annex 1: Analysis report of collected data in the baseline investigation

I. Zouping County

There are 3 pilot communities in Zouping County, totaling 2730 households. 772 households are selected for in-home sampling survey. Of which, there are 660 households in Zhongxing Community, including 238 investigated households; 1500 households in Cotton Mill Quarter, 305 investigated households; 570 households in Dongguan Village, 229 investigated households.

1. Summary of resident questionnaires

	Content of questionnaire	Zhongxing Community	Cotton Mill Quarter	Dongguan Village	Total	Percentage %
Status of community public environmental hygiene	1. Is there any place for centralized solid wastes collection in your residential-quarters?					
	Yes	237	299	228	764	99.0
	No	0	4	0	4	0.5
	No idea	1	2	1	4	0.5
	2. Do you think the solid wastes in your residential-quarters are cleared away timely?					
	Timely	231	293	225	749	97.0
	Not timely	4	4	0	8	1.0
	No idea	3	8	4	15	2.0
	3. Is there any bulletin board for public environmental hygiene in your residential quarter?					
	Yes	175	207	191	573	74.2
	No	42	48	26	116	15.0
	No idea	21	50	12	83	10.8
	4. Are you satisfactory with the public environmental hygiene status of your residential quarter?					
	Satisfactory very much	112	47	125	284	36.8
	Satisfactory	126	247	101	474	61.4
	Not satisfactory	0	11	3	14	1.8
	5. What main problems about public environmental hygiene are in existence in your residential quarter? (Please select two major items.)					
	Domestic wastes are littered at discretion and nobody is responsible for clearing them away.	18	64	26	108	17.8
	Sewage facilities are outdated and obsolete, with wastewater overflowing sometimes.	34	68	151	253	41.7
Pollution by industrial wastewater from nearby factories is serious, with malodor.	31	75	5	111	18.3	
There is no property management department.	38	6	38	82	13.5	
For other problems, please specify _____	0	53	0	53	8.7	
environmental hygiene	6. Do you think it is necessary to carry out centralized treatment of domestic wastes?					
	Yes	228	276	223	727	94.2
	No	6	19	3	28	3.6

	Don't know	4	10	3	17	2.2	
	7. Do you think the centralized solid wastes treatment matters to you and your family?						
	Matters very much	181	97	181	455	58.9	
	Matters a little	51	184	43	278	36.0	
	Doesn't matter	2	12	1	15	1.9	
	No idea	4	12	4	20	2.6	
	8. Where did you get knowledge of public environmental hygiene? (Please select two items of the most important.)						
	Radio and TV	192	249	222	663	56.3	
	Newspapers and periodicals	104	125	60	289	24.5	
	Internet	36	15	10	61	5.2	
	Community training, awareness campaign	59	93	13	165	14.0	
	9. Do you know hazards of solid wastes?						
	Yes	233	283	213	729	94.4	
	No	5	22	16	43	5.6	
	10. Are there regular awareness campaign and training on public environmental hygiene in your residential quarter?						
	Frequently	90	66	53	209	27.1	
	Seldom	109	152	75	336	43.5	
	Never	39	87	101	227	29.4	
	11. Do you know the ADB-financed solid wastes treatment plant project of Zouping County?						
	Yes	120	86	60	266	34.5	
	No	118	219	169	506	65.5	
	12. Do you support the project construction?						
	Support very much	125	94	108	327	42.4	
	Support	110	203	115	428	55.4	
	Indifferent	3	8	6	17	2.2	
	Not support	0	0	0	0	0.0	
	Community residents public environmental hygiene behavior	13. In daily life, do you classify the domestic wastes?					
		Yes	50	89	72	211	27.3
No		108	163	64	335	43.4	
I want, but I don't know how to do.		80	53	93	226	29.3	
14. In daily life, do you take solid wastes to specified wastes collection place?							
Yes		234	304	226	764	99.0	
No		4	1	3	8	1.0	
15. What bad habits do people around you have? (Multiple selection possible)							
Littering solid wastes		40	89	119	248	22.0	
Spitting everywhere		169	190	171	530	47.0	
Throwing wastepaper, pericarp	102	137	48	287	25.5		
Splashing domestic wastewater	13	38	11	62	5.5		

Status of community residents participation in public environmental hygiene	16. Did you take part in activities of through cleaning and snow clearing in your residential quarter?					
	Frequently	174	183	99	456	59.0
	Seldom	47	83	28	158	20.5
	Never	17	39	102	158	20.5
	17. If you see someone throwing about wastes in public places, what will you do?					
	Dissuade	54	92	78	224	29.0
	Pick them up and put into a dustbin	141	155	54	350	45.4
	Disregard it	43	58	97	198	25.6
	18. Are you willing to participate in the public cleaning activities to be organized by the community?					
	Yes	221	271	147	639	82.8
	Indifferent	17	31	82	130	16.8
	No	0	3	0	3	0.4
	19. Are you willing to participate in the training and awareness campaign in terms of public environmental hygiene to be organized by the community?					
	Yes	216	250	114	580	75.1
	Indifferent	22	45	115	182	23.6
	No	0	10	0	10	1.3
	20. Are you aware of the rules and regulations concerning public environmental hygiene formulated by the community?					
	Yes	102	68	74	244	31.6
	Not very much	116	165	120	401	51.9
	No	20	72	35	127	16.5
	21. Do you pay the charges of solid wastes clearing away and disposal?					
Yes	99	120	37	256	33.2	
No	139	185	192	516	66.8	

2. Analysis of the questionnaires

(1) Community public environmental hygiene status

The communities are complete in infrastructures and good in management, with up to 97.0% of domestic wastes collection timeless rate, 98.2% of resident satisfactory rate. However, aging of drainage facilities is in existence. 41.7% of the residents think that the drainage facilities are aging and antiquated, leading to the fact the wastewater overflows to affect the community's environment.

(2) Public environmental hygiene awareness of community residents

The residents have very high cognition degree on solid wastes that are harmful and need for centralized treatment. 94.2% of residents are of the opinion that it is necessary to realize the centralized disposal of solid wastes; 94.4%, aware of harm brought by wastes; 97.8%, support the construction of solid wastes disposal plant. And at the same time, it is indicated that the publicity of environmental hygiene by the community administrative departments is inadequate, because only 14.0% of residents get the knowledge of environmental hygiene through training or awareness campaign, and even 65.5% of residents do not know that

Zouping is utilizing ADB loans for construction of solid wastes treatment plant.

(3) Public environmental hygiene behavior

99.0% of community residents can observe the rules and regulations for public environmental hygiene to put wastes onto the collection points, but know a little about knowledge of wastes classification. 29.3% of residents want to classify solid wastes, but not know how to do, 47.0% of the residents have bad behavior of spitting everywhere.

(4) Status of community residents participation in public environmental hygiene activities

With strong participation will, 59.0% of residents took part in the hygiene activities organized by the community; 82.8% would like to participate in the hygiene activity that the community organizes, but 68.4% are seldom aware of the related rules and regulations of the community on public environmental hygiene; with not strong will of paying for wastes disposal; and 66.8% of residents do not pay the fee of wastes disposal.

3. Proposals

(1) Strengthen the timing repair, maintenance and renewal of the infrastructures of the community. Keep the infrastructures in good operating conditions.

(2) When carrying out the training and awareness campaign during the pilot activities, enhance the knowledge training about water conservation, energy-saving, wastes emission reduction (wastes classification), and raise the awareness and ability of the community residents to take care of public environmental hygiene and cultivate the good behavioral habits.

(3) Establish and perfect the rules and regulations for community environmental hygiene, vigorously conduct the training and awareness campaign and actively encourage the residents to participate jointly in the community's environmental hygiene management and activity.

II. Shanghe County

There are 3 pilot communities in Shanghe County, totaling 1480 households. 622 households are selected for in-home sampling survey. Of which, there are 400 households in Haomen Garden Quarter, including 196 investigated households; 780 households in Xinyuan Quarter, 258 investigated households; 300 households in People's Hospital Quarter, 168 investigated households.

(1) Summary

	Content of questionnaire	Haomen Garden Quarter	Xinyuan Quarter	People's Hospital Quarter.	Total	Percentage %
Status of community public environmental hygiene	1. How are the conditions of existing sewer, septic tanks, drain ditches and other sewage facilities in your residential quarter?					
	Good	53	18	17	88	14.1
	So so	136	162	116	414	66.6
	Poor	6	59	34	99	15.9
	No idea	1	19	1	21	3.4
	2. Is there any pollution in river, lake, ditch, pond and other water areas adjacent to your residential quarter?					
	Yes, serious	37	24	88	149	24.0
	Yes, but not serious	126	169	76	371	59.6
	No	33	65	4	102	16.4
	3. In your residential quarter, is there any domestic wastewater littered at discretion?					
	Very common	3	18	49	70	11.3
	Seldom	127	110	99	336	54.0
	No	60	80	13	153	24.6
	No idea	6	50	7	63	10.1
	4. Are there any bulletin boards for public environmental hygiene in your residential quarter?					
	Yes	162	22	46	230	37.0
	No	15	129	108	252	40.5
	No idea	19	107	14	140	22.5
	5. Are you satisfied with the public environmental hygiene status of your residential quarter?					
	Satisfactory very much	39	18	12	69	11.0
	Satisfactory	155	192	113	460	74.0
	Not satisfactory	2	48	43	93	15.0
	6. What main problems about public environmental hygiene are in existence in your residential quarter? (Please select two major items.)					
	Solid wastes are littered at discretion and nobody is responsible for clearing them away.	37	18	27	82	11.5
	Sewage facilities are outdated and obsolete, with wastewater overflowing sometimes.	18	180	113	311	43.8
	Pollution by industrial wastewater from nearby factories is serious, with malodor.	143	12	46	201	28.3
There is no property management department.	4	57	39	100	14.1	

	For other problems, please specify _____	11	0	5	16	2.3
Habitants public environmental hygiene awareness	7. Are you of opinion that it is necessary to carry out the centralized treatment of domestic wastewater?					
	Yes	172	132	153	457	73.5
	No	11	108	5	124	19.9
	No idea	13	18	10	41	6.6
	8. Do you think that the centralized domestic wastewater disposal matters to you and your family?					
	Matters very much	122	130	101	353	56.8
	Matters to an extent	67	111	64	242	38.9
	Does not matter	1	16	0	17	2.7
	No idea	6	1	3	10	1.6
	9. Where did you get knowledge of public environmental hygiene? (Please select tow items of the most important.)					
	Radio and TV	156	127	146	429	45.9
	Newspapers and periodicals	118	103	104	325	34.8
	Internet	54	27	36	117	12.5
	Community training, awareness campaign	37	7	20	64	6.8
	10. Do you and your family members have the habit to save water?					
	Yes	188	207	167	562	90.4
	No	8	51	1	60	9.6
	11. Are there regular awareness campaign and training activities on public environmental hygiene in your residential quarter?					
	Frequently	21	107	33	161	25.9
	Seldom	149	103	69	321	51.6
Never	26	48	66	140	22.5	
12. Do you know the ADB-financed domestic wastewater disposal plant construction project of Shanghe County?						
Yes	92	102	37	231	37.1	
No	104	156	131	391	62.9	
13. Do you support the project construction?						
Support very much	105	78	84	267	42.9	
Support	78	132	82	292	46.9	
Indifferent	13	48	2	63	10.2	
Do not support	0	0	0	0	0.0	
Community residents public environmental hygiene behavior	14. What's the water consumption of your family last month?					
	3m ³ or less	63	120	41	224	36.0
	3-5 m ³	98	90	100	288	46.3
	5-10 m ³	30	47	25	102	16.4
	10 m ³ or more	5	1	2	8	1.3
	15. What water saving methods dose your family have? (Multiple selection possible)					
	Reuse of washing water	153	132	63	348	46.4
Use of water saving faucets	46	100	106	252	33.6	

	Use of water saving closetool	51	25	59	135	18.0
	No	6	0	9	15	2.0
	Others	0	0	0	0	0.0
	16. What bad habits do people around you have? (Multiple selection possible)					
	Littering solid wastes into river, lake, pond and other water areas	94	78	129	301	42.5
	No turning off the tap timely after water use	59	66	74	199	28.1
	Draining domestic wastewater anywhere	64	73	63	200	28.2
	Others:	0	0	9	9	1.2
Status of community residents participation in public environmental hygiene	17. Did you take part in any water saving or cleaning activities organized by the community?					
	Yes	31	30	17	78	12.5
	Seldom	118	84	74	276	44.4
	Never	47	144	77	268	43.1
	18. Are you willing to participate in the public environment hygiene activities organized by the community?					
	Yes	179	150	154	483	77.7
	Indifferent	13	60	14	87	14.0
	No	4	48	0	52	8.3
	19. If you find any wastewater overflow in the residential quarter, will you report to the departments concerned?					
	Yes, but I don't know whom to look for.	18	60	58	136	21.9
	Yes	171	150	102	423	68.0
	No	7	48	8	63	10.1
	20. Are you willing to participate in training and awareness campaign in terms of public environmental hygiene to be organized by the community?					
	Yes	175	112	152	439	70.6
	Indifferent	20	111	14	145	23.3
	No	1	35	2	38	6.1
	21. Are you aware of the rules and regulations concerning public environmental hygiene formulated by the community?					
	Yes	31	120	21	172	27.7
	Yes, but a little	140	103	96	339	54.5
	No	25	35	51	111	17.8
22. If charges of public environmental hygiene are collected by the community to cover expenditures for community environment cleaning, are you willing to pay?						
Yes	176	135	149	460	74.0	
No	20	123	19	162	26.0	

2. Analysis of the questionnaire

(1) Community public environmental hygiene status

The communities are complete in infrastructures basically and common in management, and only 14.1% of residents deem the infrastructures good, with up to 85.0% of resident satisfactory rate. However, aging of drainage facilities is in existence. 43.8% of the residents think that the drainage facilities are aging and antiquated, leading to the fact the wastewater

overflows to affect the community's environment.

(2) Public environmental hygiene awareness of community residents

The residents have very high cognition degree on solid wastes that are harmful and need for centralized treatment, with strong water-saving awareness. 73.5% of residents think that it is necessary to carry out the centralized disposal of wastewater; 89.8%, support the construction of wastewater treatment plant; and 90.4, are aware of water conservation. And at the same time, it is indicated that the publicity of environmental hygiene by the community administrative departments is inadequate, because only 6.8% of residents get the knowledge of environmental hygiene through training or awareness campaign and even 62.9% of residents do not know that Shanghe County is utilizing ADB loans to build up the wastewater disposal plant.

(3) Public environmental hygiene behavior

98.0% of community residents can take the water-saving measures for reduction of wastewater drainage. However 28.2% of residents have the bad behavior to discharge wastewater everywhere and 42.5%, litter solid wastes to the water areas

(4) Status of community residents participation in public environmental hygiene activities

With strong participation will in public environmental hygiene activities and payment of domestic wastewater disposal, 77.7% of residents are willing to take part in the hygiene activities organized by the community; 74.0%, pay for wastewater treatment, but 72.3%, unaware of the rules and regulations for public environmental hygiene of the community.

3. Proposals

(1) Strengthen the construction and renewal of the infrastructures of the community. Keep the infrastructures in good operating conditions.

(2) Strengthen the training and awareness campaign about the community public environmental hygiene, and raise the awareness and ability of the community residents to take care of public environmental hygiene and cultivate the good behavioral habits.

(3) Establish and perfect the rules and regulations for community environmental hygiene, energetically conduct the training and awareness campaign and actively encourage the residents to participate jointly in the community's environmental hygiene management and activity.

III. Gaotang County

There are 3 pilot communities in Gaotang County, totaling 853 households (person). 539 households are selected for in-home sampling survey. Of which, there are 186 households in Xipu Village, including 125 investigated households; 185 households in Dongcui Village, 124 investigated households; 170 households in Shiwulipu Village, 118 investigated households; and 312 persons in Quanlin Paper Group, 172 investigated persons.

1. Summary

	Content of questionnaire	Xipu village	Dongcui village	Shiwulipu village	Quanli Paper Group	Total	Percentage %
Status of community public environmental hygiene	1. Can the domestic wastewater and rainwater of your village (residential quarter) be drained smoothly?						
	Yes	18	33	26	9	86	16.0
	Blocking up sometimes	74	70	26	67	237	44.0
	Poor drainage facilities	28	6	32	59	125	23.2
	Drainage facilities don't work.	3	0	33	7	43	8.0
	No idea	2	15	1	30	48	8.8
	2. Is there any pollution in river, lake, ditch, pond and other water areas adjacent to your village (residential quarter)?						
	Yes, very serious	52	5	58	46	161	29.9
	Yes, but not serious	70	112	40	82	304	56.4
	No	3	7	20	44	74	13.7
	3. Are you of opinion that what's cause of pollution?						
	Industrial wastewater discharged from nearby factories	84	25	53	67	229	42.5
	Splashing of domestic wastewater	13	57	42	56	168	31.2
	Littering of Domestic wastes	27	42	23	49	141	26.2
	For others, please specify:	1	0	0	0	1	0.1
	4. Is there any (wastewater, solid wastes) littering in your village (residential quarter)?						
	Yes	86	48	67	42	243	45.1
	A little	34	70	25	62	191	35.4
	No	4	1	26	23	54	10.0
	No idea	1	5	0	45	51	9.5
	5. Are there any bulletin boards for public environmental hygiene in your village (residential quarter)?						
	Yes	68	81	71	52	272	50.5
	No	40	29	38	35	142	26.3
	No idea	17	14	9	85	125	23.2
	6. Are you satisfied with public environmental hygiene of your village (residential quarter)?						
	Satisfactory very much	19	21	19	6	65	12.1
	Satisfactory	61	62	60	126	309	57.3
	Not satisfactory	45	41	39	40	165	30.6

	7. Do you think that what's the main cause affecting the public environmental hygiene of your village (residential quarter)? (Please select 2 items of the most important.)						
	Domestic wastes are littered at discretion and nobody is responsible for clearing them away.	84	91	63	99	337	37.0
	Drainage facilities are outdated and obsolete, with wastewater overflowing sometimes.	20	21	65	40	146	16.0
	Serious pollution by industrial wastewater from near by factories, malodorous	42	35	41	79	197	21.6
	No property management	27	89	31	83	230	25.4
	For others, please specify:_____	0	0	0	0	0	0
Habitants public environmental hygiene awareness	8. Do you think it is necessary to carry out the centralized disposal of industrial wastewater?						
	Yes	100	90	111	113	414	76.8
	No	17	30	6	9	62	11.5
	No idea	8	4	1	50	63	11.7
	9. Do you think the industrial wastewater disposal matters to you and your family?						
	Matters very much	64	65	75	57	261	48.4
	Matters to an extent	48	52	41	88	229	42.5
	Does not matter	8	2	0	13	23	4.3
	No idea	5	5	2	14	26	4.8
	10. Where did you get knowledge of public environmental hygiene? (Please select two items of the most important.)						
	Radio and TV	112	90	76	144	422	49.0
	Newspapers and periodicals	55	31	42	102	230	26.7
	Internet	24	30	29	57	140	16.2
	Community training, awareness campaign	1	2	41	26	70	8.1
	11. Do you frequently remind your family members to pay attention to public environmental hygiene?						
	Frequently	20	34	43	60	157	29.1
	Seldom	57	74	62	70	263	48.8
	Never	48	16	13	42	119	22.1
	12. Are there regular awareness campaign and training activity on environmental protection in your village (residential quarter)?						
	Frequently	7	41	56	3	107	19.9
	Seldom	73	76	55	103	307	57.0
	Never	45	7	7	65	124	23.1
	13. Do you know the ADB-financed wastewater disposal project of Gaotang County?						
Yes	44	68	96	54	262	48.6	
No	81	56	22	118	277	51.4	
14. Do you support the project construction?							
Support very much	39	34	57	67	197	36.5	
Support	64	78	57	58	257	47.7	
Indifferent	21	12	4	31	68	12.6	
Do not support	1	0	0	16	17	3.2	
iv	15. Do the people around you litter domestic wastes or drain domestic wastewater into river, lake, pond and other water areas?						

	Yes	99	78	86	69	332	61.6
	No	15	19	24	27	85	15.8
	No idea	11	27	8	76	122	22.6
	16. What water do you use for farmland irrigation, flowers watering or spraying of road surface?						
	River water	80	37	18	15	150	27.8
	Well water	34	80	82	102	298	55.3
	Pond water	10	7	14	28	59	10.9
	Treated intermediate water	1	0	4	17	22	4.1
	Others:	0	0	0	10	10	1.9
	17. What bad habits do people around you have to the nearby river, lake, pond and other water areas? (Multiple selection possible)						
	Littering solid wastes or domestic wastewater	86	84	65	103	338	38.0
	Washing sprayers	73	48	35	60	216	24.3
	Discarding empty pesticide bottles at discretion	75	55	17	34	181	20.4
	Washing waste acid or spent caustic containers	14	1	56	70	141	15.9
	Others:	1	0	4	8	13	1.4
	18. If you see someone littering domestic wastes or wastewater into the nearby river, lake, pond and other water areas to pollute the environment, what will you do?						
	Stop it	19	66	57	35	177	32.8
	Intend to stop it, but not do	71	46	58	76	251	46.6
	Disregard it	35	12	3	61	111	20.6
	19. If you find out serious pollution of the nearby river, lake, pond and other water areas, will you report to the concerned authorities?						
	Yes, but I don't know to whom to report.	39	64	46	66	215	39.9
	Yes, I will.	43	44	66	34	187	34.7
	No	43	16	6	72	137	25.4
Status of community residents participation in public environmental hygiene	20. Did you take part in the activities of through cleaning and snow clearing organized by your village (residential quarter)?						
	Frequently	29	59	54	38	180	33.4
	Seldom	77	61	57	83	278	51.6
	Never	19	4	7	51	81	15.0
	21. Are you willing to participate in the environment cleaning activities organized by the village (residential quarter)?						
	Yes	46	89	63	49	247	45.8
	Indifferent	65	32	50	81	228	42.3
	No	14	3	5	42	64	11.9
	22. Are you willing to participate in the training or awareness campaign on public environmental hygiene organized by the village (residential quarter)?						
	Yes	61	90	65	49	265	49.2
	Indifferent	50	30	48	91	219	40.6
	No	14	4	5	32	55	10.2
	23. Are you aware of the rules and regulations relating to public environmental hygiene formulated by the village (residential quarter)?						
Yes	51	64	69	40	224	41.6	

A little	60	57	48	110	275	51.0
No	14	3	1	22	40	7.4
24. If proper charges of public environmental hygiene are collected by the village (residential quarter) to cover expenditures for community environment cleaning, are you willing to pay?						
Yes	28	103	36	73	240	44.5
No	97	21	82	99	299	55.5

2. Analysis of the questionnaire

(1) Community public environmental hygiene status

The communities are incomplete in infrastructures basically and common in management. Only 16.0% of residents deem the infrastructures good. Especially 42.5% of the residents think that the industrial wastewater has effect on the community environment.

(2) Public environmental hygiene awareness of community residents

The residents have very high cognition degree on wastewater that are harmful and need for centralized treatment. 76.8% of residents think that it is necessary to implement the centralized disposal of wastewater; 84.2%, support the construction of wastewater treatment plant. And at the same time, it is indicated that the publicity of environmental hygiene by the community administrative departments is inadequate, because only 8.1% of residents get the knowledge of environmental hygiene through training or awareness campaign, and even 51.4% of residents do not know that Gaotang County is utilizing ADB loans to build up the wastewater disposal plant.

(3) Public environmental hygiene behavior

The community residents have higher environmental protection awareness. If finding out that there are behaviors or phenomena of polluting water areas, 74.6% of residents will report to the related departments. However, 61.6% of residents have bad behavior to litter solid waste or drain wastewater into water area arbitrarily.

(4) Status of community residents participation in public environmental hygiene activities

The residents' will to participate in the environmental hygiene activities and pay for domestic wastewater disposal is not high. Only 45.8% of residents are willing to take part in the hygiene activities organized by the community; and 44.5%, pay for wastewater treatment. And 41.6% of residents are aware of the rules and regulations for public environmental hygiene of the community.

3. Proposals

(1) Increase the investment in construction of community infrastructures. Keep the infrastructures in good operating conditions.

(2) Strengthen the training and awareness campaign about the community public environmental hygiene, and raise the awareness and ability of the community residents to take care of public environmental hygiene and cultivate the good behavioral habits.

(3) Establish and perfect the rules and regulations for community environmental hygiene, get down with the training and awareness campaign and actively encourage the residents to participate jointly in the community's environmental hygiene management and activity.

Annex 2: Content of information and pictures of the pilot and demonstration activities

1. Work meeting of pilot and demonstration activities
 - 1-1 Plan of implementation of pilot and demonstration activities
 - 1-2 Pictures of the meetings
2. Baseline survey and investigation
 - 2-1 Program of baseline investigation
 - 2-2 Questionnaires of baseline investigation
 - 3-3 Pictures of baseline investigation
3. Training activity
 - 3-1 Training materials
 - 3-2 Pictures of training activity
4. Awareness campaign
 - 4-1 Awareness raising materials
 - 4-2 DV awareness raising films
 - 4-3 Billboards
 - 4-4 Pictures of awareness campaign