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“Strengthening Disaster Preparedness in the Agricultural Sector”

Report on Gender Analysis in Juye County

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Major Abbreviations and acronyms

CIAD	Centre for Integrated Agricultural Development
DRM	Disaster Risk Management
FAO	Food and Agricultural Organization of the United Nations
FC	Farmers Cooperative
MOA	Ministry of Agriculture
TCP	Technical Cooperation Program

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1. Project Background

The Project “Strengthening Disaster Preparedness in Agricultural Sector-SDPAS” is a technical cooperation project (TCP) launched in China in July 2007. In accordance with China’s new policy on natural disaster prevention and public hazards and emergency management the TCP project objective is to assist the Ministry of Agricultural-MOA and its line agencies at provincial and local levels in testing and operationalizing on pilot basis in Juye county Shandong Province, the process of shifting from an emergency response focused intervention approach towards a Natural Disaster Risk Prevention/Preparedness oriented approach in the agricultural sector. Due to the situation in Juye County, the project will focus mainly on two types of disasters, floods (combined with water logging) and drought. The pilot project, if successful, will offer the basis for replication in other high-risk flood and drought prone areas of China.

The intended long-term project outcomes are to contribute to:

- Reducing the economic losses of farmers to the impacts of recurrent natural disasters and to build up their own capacities and resilience to mitigate future impacts from natural calamities.
- Reducing environmental degradation (alkalization of soils);
- Enhancing the operational capacities and coordination mechanisms for risk prevention and management at community, county, prefecture and provincial levels;
- Improving of farmer’s livelihoods at the community level;

2. Objectives of field survey on gender

The overall objective of gender analysis is to mainstream gender into the project, which will be achieved through several missions. Understanding of the practices in the project county is the basis for gender mainstreaming, which was obtained from the field survey mission in the three pilot villages of of Qianfengqiao, Liuxi Village and Nancao in Juye, from 11-14 June, 2008..

The specific objectives of field survey mission are:

- to collect basic information on labor division by gender, on gender impacts of the flood disaster, on gender roles in disaster management;
- to identify the gender training needs in disaster preparedness and management.

3. Procedures and Methodology of the survey

The field survey went through three stages:

(1) Preparation for field survey:

- Review the project background documents and Disaster Risk Management (DRM) practices related to Agricultural Sector in China and Shandong Province;
- Prepare the gender analysis framework and field work-plan with the CIAD and ADPC team.

(2) Conduct field survey

- Conduct the institutional interview with related local line agencies in Juye County, such as women federation, agricultural bureau by key informant interview and semi-structure group interview;
- Collect basic line data and information and identify training needs of gender in the three pilot villages using semi-structure group interview and household interview.

(3) Documentation of findings and writing up report

- Analyzing the collected data and information;
- Writing up the report.

4. Major Findings

Agriculture takes a large share of the county economy, with cotton, wheat and corn are the major corps and women are the major labor. Disasters include floods, droughts, storms, and pest, with flood ranked as the disaster with the highest economic losses and affecting most seriously the livelihoods of villagers. The survey also found out that women are the most sensitive social group affected by the frequently happened flood disasters since they are the major labors working on farms and taking care of the whole families when disaster occur. To cope with disasters and the negative impacts requires women's wide and high participation. Awareness of different departments on women's participation needs be raised and women's capacity in participation needs be further built.

4.1 Large share of agriculture in the economy

Comparing with the situation in the coastal region and suburb areas of big cities in Shandong, agriculture (including livestock production) share in total economy in Juye county is still relative large, with cotton, wheat, corn and soybean as the major crops. Table 1 is the information of the surveyed villages.

Table 1 farming system (% of farmland by size)

	NANCAO	LIUXI	QIANFENGQIAO
Crops	10	40	50
Livestock	10	10	<20
Forests	Not yet income	Not yet income	Not yet income
Migration wage work	70	50	30
Others	10		

Data source: field survey in 2008 June.

4.2 Women's dominant role in agriculture

With men migrated outside for wage work, women play a great role in agricultural production, especially in cotton production.

Table 2 shows that 80% male labor in Nancao village migrated outside while 50% of female labor migrated outside, indicating much more male labor than women labor migrated outside, and implying agricultural burden are mainly placed on shoulder of left-behind women. Similar situation is found in Liuxi and Qianfengqiao villages.

Table 2 Labor permanent migrated outside (%)

NANCAO		LIUXI		QIANFENGQIAO	
M	F	M	F	M	F
80	50	60	20	40	15

Data source: field survey in 2008 June.

Further information from the labor division by gender in the surveyed three villages confirms that women do majority of agricultural work. Table 3 presents that women take 95% of cotton production related work, and 90% of corn production related work in Nancao village, while men take less than 10% of the work. Large differences are also in Liuxi and Qianfengqiao villages.

Table 3 Labor division by gender (%)

	NANCAO		LIUXI		QIANFENGQIAO	
	Men	Women	Men	Women	Men	Women
Wheat	10	90	15	85	25	75
Corn					25	75
Cotton	5	95	10	90	10	90

Data source: field survey in 2008 June.

4.3 Floods mainly affect women's work and income

Juye is located in the southwest of Shandong Province. It is in lower reach of Yellow River Basin and upper reach of catchment of the Huai River, and is in the lowest geographical basin of a topographical zone, thus rain-water from the upper reach 6 counties flows into Juye County in the rainy season, and makes the county highly vulnerable to floods. Drainage system in the fields and communities are inadequate which aggravates the vulnerability of the fields and the communities.

It is known from the group interviews in the surveyed three villages that floods often happened in July and August, and especially in the recent five years, which decreased by more than 80% the cotton productivity which is the women's major income source.

Women in Nancao village said that besides housework they devoted majority of their time to crops and earned their income mainly from these crops. In a normal year, that is, without floods, the cotton productivity is 500kg to 600kg per mu, however, in the last five years they harvested only about 100kg per mu due to the floods. They lost income earned from cotton production, the major income source, and they have to reduce consumption especially those on themselves, such as clothes, eating.

4.4 Coping with floods needs women's wide and high participation

Women and men took many measures to minimize loss from floods, including conversion of crop cultivation to popular trees planting in more than 30 percent of their farmland, expanding animals raising and fishery, introducing vegetable greenhouses, etc. With extension of popular tree planting, labor inputs in agriculture was much reduced and more male labor migrated outside for wage work.

To cope with floods in the future relies mainly on women, on their ideas and technology. Not only because they are the major labor, moreover it is them mainly be affected by the floods and will carry out activities to cope with the floods.

4.5 Women lack of knowledge on coping losses of floods disasters and need support

Currently, women know the possible loss of cotton caused by floods, however, they do not have other ways to avoid and minimize the loss, and they just plant cotton and wish a good year without floods.

Women in the surveyed villages said the current farmland with cotton production is in lowest places with high alkalinity, where other crops are not suitable to be planted except cotton that has high resistance to alkalinity of the soil. They also cannot use the places for other purposes due to the frequently happened floods. They think if

there is one good year without floods, they will harvest a lot and earn much income.

5. Recommendations for gender mainstreaming in DRM and TCP project

Based on the finding of the field survey and document review, the gender specialist has made following recommendations for mainstreaming the gender issues in the DRM and the whole TCP project cycle:

- Gender Mainstreaming in DRM: In order to control floods and minimize the loss from floods, women, the major labor, must be involved in all stages of the Disaster Risk Management (DRM) cycle, from early warning, to preparedness, emergency responses and post disaster recovery and with focus on preparedness.
- In relevant chapters of the County Disaster Risk Management Strategy, wherever necessary, actions and countermeasure to ensure the women's participation and benefit should be specified and formulated as guideline for implementation of the strategy.
- For strengthening women's participation in DRM, some ideas for encouraging women's participation and indicators for monitoring the results and impacts were collected from discussions with the farmer groups and county institutions (table 4). This gender mainstreaming framework needs to be further improved, especially through integration them into the project and relevant training activities, such as Community Based Disaster Risk Management (CBDRM) Training at the different levels.
- Mainstreaming gender issues in the whole TCP project cycle and all steps and procedures of the DRM needs great efforts from all levels and all staff. The gender sensitized methodologies and concepts for encouraging women's participation in the whole DRM and TCP project cycle selected should be developed and tested in the three pilot villages and in relevant training.
- Both technical and management training courses related to crops production, animal breeding, handy craft, awareness building, etc., should ensure the participation of women who directly involved in the production. It must be assured that the women will be the major trainees of horticulture and greenhouse vegetable production, poultry and animal production and breeding in which women are the major labors of routine production. To safeguarding women's participation in special technical training, women should be the only participants for exclusively attending the training.
- For capacity building of the female staff of governmental line agencies and

service institutions, special training course for gender mainstreaming in the technical extension and community development services should be delivered under facilitation of the TCP gender specialist;

- Women's participation in the founding and development of Farmer's Cooperative-FC or farmer's associations should be assured. At least 20-30% of FC board committee should be elected from women candidates. Women or women headed households should have the equal right to apply the FC memberships. Female member of FC must have the equal right to acquire services and helps from the cooperative and share the common benefits.

Table 4 Women participation in DRM

	Activities coping with disaster	Methods of women participation	Indicator for measurement of women' s participation	Affirmative action
Early warning	Predict disaster	Inform women, and men	% of women being informed	100% women informed
	Improve drainage system	Women participate in the design of the system	% of women member in the design team	More than 30% of the design team member are women
Preparedness	Change farming system: - expand livestock production - expand vegetable production	- Provide technical and marketing training to women - Provide micro-credit to women	- % of women being trained - % of women being provided opportunities of credit	More than 50% trainees are women
	Build capacity of farmer cooperatives (FC)	- Women participate in FC management committee - Women are the members of the FC	- % of women member in the FC committee - % of women member of the FC	- More than 30% of FC committee members are women
	Introduce new technologies: - introduce new crop varieties resistance to water and alkalinity, - improve soil with alkalinity	- Inform and train women on the new technologies	- % of women being informed - % of women being trained	- 100% women are informed with the new technologies; - 90% of trainees are women
Post-disaster relief	Deliver relief	Equal delivery to women		
Recovery from the disaster	Introduce new techniques of lowering down loss of cotton with disaster: - Use more fertilizer, - New kinds of pesticide	- Inform women of the new technologies - Provide technical training to women	- % of women being informed - % of women being trained	- 100% women are informed with the new technologies; - 90% of trainees are women

6. Field survey schedule

Table 1 schedule of field survey

Date	Activities	Location
2008-6-11	Beijing-Juye	
2008-6-12	Farmer group discussions	Nancao, Liuxi, and Qianfengqiao villages respectively
2008-6-13	Interview of Juye Women Federation	Juye Women Federation
2008-6-14	- Training - Juye-Beijing	Juye Agricultural Bureau