

I. UPDATED POVERTY AND SOCIAL ANALYSIS

A. Introduction

1. The purpose of this updated poverty and social analysis (PSA) is to provide updated socio-economic information on the communes and communities affected by the Phuoc Hoa Water Resources Project phase 2. Initial social assessments were conducted in 2003 and a further updated PSA was conducted by the Institute of Sociology, Hanoi, as the independent resettlement action plan (RAP) implementation monitoring consultant, in November 2005 and the PSA report completed in March 2006. This initial survey was conducted in 12 communes of 8 districts in 4 provinces: Binh Duong, Binh Phuoc, Tay Ninh and Long An provinces, and Ho Chi Minh City (HCMC).

Table 1: 2005 PSA Surveyed Communes

Ref	Province/district	Surveyed communes	Number of surveyed HHs
I	Binh Duong province		
1	Phu Giao District	An Long	40
2	Ben Cat District	An Thai	35
3		Tru Van Tho	46
4	Dau Tieng District	Minh Tan	45
II	Binh Phuoc province		
1	Chon Thanh district	Minh Thanh	30
2		Nha Bich	50
3		Minh Thang	53
III	Tay Ninh province		
1	Chau Thanh District	Phuoc Vinh	50
2	Tan Bien District	Hoa Hiep	47
IV	Long An province		
1	Duc Hoa District	Tan My	52
2		Hau Nghia town	No PAH
V	Ho Chi Minh City		
1	Cu Chi District	Thai My	52
	Total	12 communes	500

2. Due to the need for the project to request supplementary financing from the Asian Development Bank (ADB), and in accordance with ADB requirements, the PSA is hereby updated and focuses only on communes and hamlets affected by the phase 2 scope of works. It should also be noted that owing to time constraints and that the provincial On-Farm and Social Development Program (OSDP) teams have undertaken resettlement field surveys, it was not intended to undertake a separate social survey of households in the affected areas for this updated PSA. However, basic information and data was collected at district and commune levels and further detailed household information that was obtained from the OSDP resettlement surveys has been included in this updated PSA.

3. In reviewing poverty, there are two standards used: The central standard established under Decision 170/2005/QĐ-TTg dated 8/7/2005 and applying for the period 2006 until 2010, and provincial standards. For example, according to the central standard, those rural households with incomes under D200,000 per month per person, are considered poor. In

provincial areas, rural households with incomes between D261,000 to D300,000 per person per month, are poor.

B. General Conclusion

4. Poverty reduction has made impressive performance since the initial social assessments were conducted in 2003 and also the updated PSA in 2005. A combination of government poverty reduction policies and strategies, and rapid urban growth in Ho Chi Minh City (HCMC) and the surrounding areas has provided local communities with more opportunities for employment, business and services, as well as increasing the demand for local agricultural products such as rice and vegetables and other crops.

5. Government efforts in improving civic infrastructure have increased and more community services are available and with a higher level of service. Health and education facilities in target areas, electrification, and communications and transportation infrastructure have all improved significantly.

6. Communities are still keen to participate in the Phuoc Hoa project and take advantage of improved irrigation facilities and services. They believe that the irrigation will allow them to gain more income from agriculture through having a more reliable water supply servicing a wider benefit area. Benefit areas would be under continuous cropping with rice, vegetables, beans, melons and fruits. There are significant opportunities for aquaculture. Local consumer demand will increase as HCMC and the peri-urban areas continue to grow, and provincial centers similarly expand.

C. Description of the Project

7. Water resources infrastructure to be developed will include the Phuoc Hoa headworks which will inundate 685 hectares (ha) with average water level at plus 42.9m and a 40.5-kilometer (km) long transfer canal to divert and convey water from the Be River to the existing Dau Tieng Reservoir on the Saigon River in the neighboring basin. From there, it will be diverted through the existing Dau Tieng irrigation system for multiple uses including irrigated agriculture and supplementary water for domestic, municipal, and industrial (DMI) use and salinity control in the Saigon and Vam Co Dong river basins. Two new irrigation areas will be developed under the Project: (i) Tan Bien irrigation system (TBIS) in Tay Ninh Province with a net command area at full development of 13,390 ha, and (ii) Duc Hoa irrigation system (DHIS) in Long An Province with a net command area at full development of 17,560 ha. A third irrigation area, Binh Long, was dropped at the mid term review (MTR) during phase 1. The remaining total combined net irrigation command area at full development will be about 34,405 ha. In addition, the scheme will provide about 17.1 cubic meters per second of water to HCMC and neighboring provinces for DMI use.

8. The phase 2 scope of works comprises the construction of the Duc Hoa main canal, and the development of the TBIS and the DHIS.

D. Duc Hoa Main Canal Overview

9. It should be noted that no separate study was made for the Duc Hoa main canal area during the initial PSA in 2006. The proposed design for Duc Hoa main canal has a total length of 17,680 km, passing through three provinces and districts: (i) Trang Bang - Tay Ninh province (ii) Cu Chi District - Ho Chi Minh City; and (iii) Duc Hoa District - Long An Province.

10. The canal alignment begins at Km 33 +567 on the Dau Tieng East canal. The first section of the canal has the length of 7 km following the old N26 canal alignment passing through Hung Loc and An Tinh communes of Trang Bang district in Tay Ninh province. The main canal will then cross National Highway 22 (Trans-Asia Road), following the boundary of Trang Bang and Linh Trung 03 Industrial zones, continuing through land of Thai My commune in Cu Chi district. It will across Thay Cai canal by steel siphon, and end at Km 17 +680 of Duc Hoa territory near Hau Nghia town, Duc Hoa district, Long An province.

Table 2: Affected Communes and Hamlets

Province	District	Commune	Hamlet
Tay Ninh	Trang Bang	Hung Loc	Loc An
			Loc Thanh
		An Tinh	An Duoc
			Bau May
			Suoi Sau
HCMC	Cu Chi	Thai My	Thap
			Bin Thuong 1
			Bin Thuong 2
			My Khanh A
Long An	Duc Hoa	Tan My	Bau Cong
		Hau Nghia Township	

1. Socio-Economic Conditions of Affected Communes

11. The Duc Hoa main Canal starts at the Dau Tieng East main canal and passes through land belonging to Loc An and Loc Thanh hamlets of Hung Loc commune. Hung Loc is a relatively remote village, 7 km far from the center of Trang Bang town. It is mainly an agriculture based community with significant poultry-raising with associated small scale industries, businesses and services serving the people in the locality.

12. An Tinh commune is adjacent and to the east of Hung Loc, and the canal will pass through three hamlets of An Duoc, Bau May, and Suoi Sau. An Tinh commune is primarily dependent upon agriculture and animal husbandry, however this commune is close to an industrial park so there is a wider range of small businesses, commerce and services and the trades and handicraft industry provides many local employment and vocational opportunities.

13. Thai My commune lies across the district and provincial border in Cu Chi district of HCMC but is actually situated closer to An Tinh. The main canal will cross the Thay Cai canal at a wetlands area and into through Tan My hamlet and other hamlets of Tan My commune. Tan My is a commune which is located in undulating land of Duc Hoa district, lying 4 km south from the center of Duc Hoa township. Most household livelihoods are agriculture based with most conducting poultry farming. There are small businesses and traders and services primarily serving the local community.

2. Land of affected communes

14. Land resources of the five communes affected by the Duc Hoa main canal alignment are classified as indicated in the table below.

Table 3: Land Areas of Affected Communes

Commune	Total land (ha)	Area and percentage residential land (ha)	Area and percentage of agricultural land		Area and percentage forestry land	Area and percentage aquaculture land	Area and % other lands
			Tree crops	Annual crops			
Loc Hung	4,514.73	145.02	150.30	3,996.75	0.00	37.52	185.14
	100.00%	3.21%	3.33%	88.53%	0.00%	0.83%	4.10%
An Tinh	3,330.46	137.60	705.00	1,794.00	0.00	29.00	664.84
	100.00%	4.13%	21.17%	53.87%	0.00%	0.87%	19.96%
Thai My	2,414.09	66.42	908.67	934.52	0	17.75	486.73
	100%	2.75%	37.64%	38.71%	0.00%	0.74%	20.16%
Tan My	3,647.99	95.08	739.24	2,418.35	72.53	34.91	287.88
	100.00	2.61	20.26	66.29	1.99	0.96	7.89
Hau Nghia town	1242.95	219.23	0	720.93	0	27.36	
	100%	17.64%	0	58%	0	2.2%	

Source: Asian Development Bank estimates based on data from the CPCs provided in June 2010

3. Demographic information of affected communes

15. Communes affected by the Duc Hoa main canal are of the Kinh people and there are no ethnic minority households in the locality. The average household size is just over 4 persons per household as shown below. It should be noted that there are no expected affected households in Hau Nghia Township although farmers owning land in the area are expected to benefit from the improved water supply.

Table 4: Number of Households in Affected Communes

Commune	Number of hamlets	Number of households	Number of people	Average persons/household
Loc Hung	10	4,300	17,497	4.06
An Tinh	9	5,013	20,410	4.07
Thai My	7	2,997	11,410	3.8
Tan My	6	3,112	11,926	3.83
Hau Nghia town	8	3,894	14,564	3.74

Source: Asian Development Bank estimates based on data from the CPCs provided in June 2010

4. Living conditions and services

16. **Road system.** Most of the roads in affected villages are relatively good and the provincial and district level roads sealed. Roads between most communes and hamlets are not sealed but are compacted with red gravel and provide year round access. Thai My commune roads are sealed.

17. **Electricity.** Most households in the project area are using electricity and in An Tinh and Thai My communes 100% of households are connected to the national grid. In Hung Loc and Tan My communes approximately 98% of households use electricity from the national grid. The remaining 2% are located too far from the commune and it is too expensive to connect. The commune authorities are applying for Government support to assist them in accessing the national grid.

18. **Domestic water supply.** most people in the area use water from drilled wells. In Hung Loc commune 85% of households use drilled wells and in An Tinh commune 98%. Thai My commune has a clean water station in My Khanh A hamlet, at present the station provides clean water and has capacity remaining for further supply. In Tan My 93% of households use drilled wells. The remainder mainly uses water from dug wells and ponds. Most households assess the water quality through visually and according to odor, and in general are satisfied with the water quality. However, the water has not been tested and there is no water supply development program in the commune. Some households have obtained loans from the Social and Policy Bank to drill their own wells.

19. **Water for agricultural production.** The two communes of An Loc and Hung Tinh in Trang Bang district, Tay Ninh province, use water from the Dau Tieng East main canal and canal N26 to irrigate agricultural land, while Thai My commune uses water for agriculture from the irrigation canal network that takes water from the Cu Chi East canal. In Tan My commune, there are about 1500 hectares of wetlands that use water from the Thay Cai canal. The remaining upland areas are without irrigation and mainly derive groundwater through drilled or dug wells.

20. **Agricultural produce.** The affected communes mainly cultivate rice, beans, corn and other crops resulting in a high demand for water. Currently where sufficient water is available, such as Hung Loc commune, Tinh An commune, and in the wetlands area, people are able to cultivate three crops per year comprised usually of two rice crops and one other crop. Those communes with insufficient water usually cultivate two crops per year and use well-water for production. Many households in the area have planted fruit trees, such as in Hung Loc commune there are longan and mango fruits, in Tan My mainly mango, and in An Tinh there are about 10 hectares of rubber trees. Some of these fruit areas are irrigated.

21. **Education.** The four communes and Hau Nghia town have preschool, primary (Category 1) and junior secondary (Category 2) schools. In An Tinh and Loc Hung communes have two schools of each category and Tan My just has one category 2 school. Thai My has kindergarten, primary and secondary schools built to national standards. There are several preschools serving the communities and it is relatively convenient for people to take their children to school. In Hung Loc, there is a senior high school (category 3), whereas the other communes have no senior high school. The number of students attending primary and junior high school (up to Year 9), and attending kindergarten is 100%. Senior high school (up to Year 12) enrollment is over 90% of that age group's population. The remainder either works or undertakes vocational training. The schools are of relatively good quality with full electricity, water and sanitation facilities. Hung Loc has a primary school that reaches the national standard. All communes have attained literacy to universal grade 1, and are promoting universal secondary education.

Table 5: School age children enrolments

Commune	Preschool % number of pupils	Primary school % number of pupils	Secondary school % number of pupils	High school % number of pupils
Lộc Hưng	100%	100%	99.80%	95.00%
An Tĩnh	100%	100%	99,60%	96.00%
Thái Mỹ	100%	100%	98%	n/a
Tân Mỹ	100%	100%	99.80%	n/a
Hau Nghia town	100%	100%	100%	n/a

22. **Health services.** In all communes affected by the Duc Hoa main canal there are clinics with staffed with doctors and nurses providing health services to communities. In Loc Hung and An Tinh communes there are clinics that reach the national standard, and in the remaining communes the infrastructure quality is relatively good. Loc Hung clinic has five medical beds with one doctor and two nurses. An Tinh clinic has 30 beds with one doctor and five nurses. Tan My clinic has 12 beds with one doctor and six nurses. Thai My has a clinic which reach the national standard.

23. **Land ownership.** Combined agriculture and residential land holdings for most households are relatively small and in Loc Hung commune no household owns more than 3 ha, and the average land held ranges from 5000 m2 to 1 ha. In An Tinh commune, which is more heavily populated, only about 5% of households own more than 1 ha, and 70% of households hold land ranging from 3000 m2 to just under 5000 m2 and the remaining households range from 1000 m2 to 2000 m2. In Thai My commune average land ownership is about 1 ha per household. Household land ownership in Tan My commune, Duc Hoa Distric of Long An Province ranges from about 2 hectares (15%), between 1 to 2 ha (35%) and households with less than 1 hectare account for about 45%. In addition, about 5% (the poorest) of households in the commune are landless or have negligible land holdings. All households surveyed by the OSDP teams either have Land Use Rights Certificates (LURC) or have temporary LURCs that can be legalized.

5. Income and employment

24. The 2005 PSA reported that out of a total sample of 166 interviewed HHs, only 9 HHs (5.4%) have income less than D10 million per year, and were ranked in the poor group. Number of low income HHs is 25 HHs (15.1%). These HHs are not regarded as “poor” according to the national standard. As explained below, poverty reduction has made great progress compared to 2009/2010 statistics and will be due to numerous factors not least would be the increased demand for agricultural products from the area and the rapid expansion of the HCMC urban and peri-urban area.

25. Most of the affected communes by Duc Hoa main canal have their income source mainly from agriculture. However, a number of communes have income from other jobs such as handicraft production, trade and services. In Hung Loc’s handicraft trade is mainly brick production, as rice cake, in An Tinh commune with traditional craft as weaving, making rice cake, due to near the industrial zone so this place should be developed for services as accommodation, hotels, restaurants, cafes, printing and others. In Tan My, handicraft weaving industry is mainly vocational bamboo weaving, and sales services primarily serve residents in the area.

26. Thai My commune in Ho Chi Minh City has about 52.35% of households engaged in agricultural production combined with handicrafts, up 36.64% of households in cottage industry and construction, and commercial services accounts for about 2.94% of the workforce, whilst other types of employees accounted for 6.07%. There are also a high number of workers that have moved from the agriculture sector to industrial employment and the labor export program (1270 overseas workers) in order to increase family incomes.

Table 6: Main jobs of the local people in the communes affected by the Duc Hoa main canal

Commune	Agriculture and livestock (% HH)	Handicraft (% HH)	Worker and State officials (% HH)	Commercial services (% HH)	Others (% HH)
Lộc Hưng	80.00%	0.62%	3.00%	14.38 %	2.00%
An Tĩnh	78.00%	2.00%	7.00%	10.68%	1.32%
Thái Mỹ	52.35%	36.64%	6.07%	2.94%	2.00%
Tân Mỹ	85.00%	3.00%	2.00%	9.00%	1.00%

Source: Asian Development Bank estimates based on data from CPCs provided in June 2010

Table 7: Average income of households in the communes affected by Duc Hoa main canal in 2009

Commune	Average income VND/household/year	Average income VND/person/year
Lộc Hưng	45.150.666	11.359.189
An Tĩnh	40.000.000	9,282,010
Thái Mỹ	64,600,000	17,000,000
Tân Mỹ	44,260,000	11,500,000

Source: Asian Development Bank estimates based on data from CPCs provided in June 2010

6. Poverty and gender

27. The provinces are currently implementing the poverty reduction programs according to the social protection strategies of the Government of Viet Nam in order to achieve the poverty reduction targets announced under the government's Decision 20/2007/QĐ-TT February 5, 2007 of the Prime Minister. These programs have achieved significant success during the implementation 2006 up to the present. The programs and initiatives include:

- Initiatives to reduce the overall poverty rate and support to increase the income of poor households have increased HH incomes by 145% in comparison with 2005
- Support to develop infrastructure in poor communes, communal areas and remote areas
- 100% poverty HHs are granted health insurance cards, when they get ill using this indicator and medical treatment insurance billing for poor households was reduced by 50%

- 100% poor household according to the general standard of the province are eligible for preferential loans of the bank for social policy business
- Support for replacing temporary houses with permanent housing
- Provision of scholarships and loans to poor students
- Capacity building for officials at all levels focusing on poverty reduction tasks
- Implementing agricultural extension training including fisheries and forestry, and other vocational training for poor households.
- Besides, implementation of Decree No. 67/2007/ND-CP April 13, 2007 on aid policy objects Social Protection.

28. Details of progress in the reduction of poverty and of poor households in affected communes are shown below:

Table 8: Number of poor households in affected communes

Year	Loc Hung No. poor households	An Tinh No. poor households	Thai My No. Poor households	Tan My No. Poor households
2006	128	189	0	211
2007	105	230	0	144
2008	101	284	0	109
2009	98	151	0	12
2010				7

Source: Asian Development Bank estimates based on data from CPCs provided in June 2010

29. The communes inside the project area are currently providing the following support programs to poorer households as follows:

- Allocate health insurance cards to poor households
- Regular cash support allowances: D120,000 per month per single elderly, the elderly aged over 85 years old, the disabled and orphans.
- Regular support of D180,000 per month for seriously disabled persons, single people under the poverty line, single women raising children under 16 years of age, households with school age children attending school, vocational training applied to 18 years old, and those with chronic psychiatric diseases and those afflicted with HIV infection.

E. Duc Hoa Irrigation System

30. The Duc Hoa Irrigation System will supply irrigation to, and benefit an area of approximately 17, 560 ha. Some 15 communes are within the project area. Most of the benefit area is within Duc Hoa district of Long An province, and there is some benefit area within Cu Chi district of HCMC. Preliminary design of the canal system shows the total acquired land area for Duc Hoa irrigation as about 290 ha, of this, some 68 ha is for primary canal, 90 ha for secondary canals and 131 ha or tertiary canals.

1. Land in affected communes

31. There are a total of 15 communes and 2 towns affected by Duc Hoa irrigation area, most communities are engaged in agriculture planting crops such as: rice, cassava, and beans.

Table 9: Total land areas in affected communes

	Communes	Area and % natural land (ha)	Area and % residential land (ha)	Area and % Agricultural land		Area and % Forest land (ha)	Area and % aquaculture (ha)	Area and % Non – agricultural land and other lands (ha)
				Perennial	Crops Annuals			
1	Duc Hoa town	692,24	107,30		516,71		20,33	
2	An Ninh Đông commune	1.801,32	58,78		1.545,79	18,25	2,48	
3	An Ninh Tây commune	2.160,18	97,50		1.830,22	1,71	20,53	0,47
4	Tan My commune	3.647,99	104,49		2.873,64	106,44	34,56	
5	Hiep Hoa commune	1.891,77	106,59		1.557,78		34,10	
6	Tan Phu commune	2.757,61	112,36		2.251,25	55,59	16,93	
7	Hoa Khanh Dong commune	1.801,32	81,47		1.286,01	0,40	17,10	0,18
8	Hoa Khanh Nam commune	1.604,28	103,26		1.240,01	9,66	11,72	
9	Hoa Khanh Tay commune	2.976,67	164,29		2.278,24	25,82	13,94	
10	Duc Lap Thuong commune	1.902,79	172,46		1.184,87	29,50	23,65	
11	Duc Lap Ha commune	2.651,08	213,86		1.377,92	6,91	26,42	
12	Duc Hoa Thuong commune	2.197,53	235,98		1.733,36		50,76	
13	Duc Hoa Ha commune	2.304,97	224,42		800,93	0,05	8,84	
14	Duc Hoa Dong commune	2.564,43	104,62		1.843,92	3,25	13,96	0,15
15	My Hanh Bac commune	3.261,97	284,53		1.186,98		11,55	
16	My Hanh Nam commune	1.752,20	223,81		1.250,87	3,92	33,88	
17	Hau Nghia town	1.242,95	219,23		720,93		27,36	

2. Demographic information in affected communes

32. Most affected communes do not have any ethnic minority or indigenous people. Women account for 51.5% of the total population. Most households have less than 4 persons per household.

Table 10: Demographic Information

No	Communes	No. of hamlet	Number of households		Number of person		Average No. People in HH
			Kinh	Ethnic	Male	Female	
1	Duc Hoa town	05	3.203		5.825	6.508	3.85
2	An Ninh Dong commune	04	2.053		3.652	3.896	3.68
3	An Ninh Tay commune	05	2.550		4.696	4.746	3.70
4	Tan My Commune	06	3.112		5.978	5.948	3.83
5	Hiep Hoa commune	05	2.537		4.515	4.871	3.70
6	Tan Phu commune	07	2.391		4.331	4.528	3.71
7	Hoa Khanh Dong commune	04	2.539		4.747	4.945	3.82
8	Hoa Khanh Nam commune	04	3.328		5.826	6.297	3.64
9	Hoa Khanh Tay commune	05	2.395		4.429	4.507	3.73
10	Duc Lap Thuong commune	04	4.160		7.433	8.191	3.76
11	Duc Lap Ha commune	05	2.935		5.689	5.662	3.87
12	Duc Hoa Thuong commune	05	4.160		7.433	8.191	3.76
13	Duc Hoa Ha commune	04	3.378		5.920	6.506	3.68
14	Duc Hoa Dong commune	05	3.643		6.803	7.013	3.79
15	My Hanh Bac commune	03	2.736		5.101	5.252	3.78
16	My Hanh Nam commune	03	3.328		5.826	6.297	3.64
17	Hau Nghia town	08	3.894		6.958	7.606	3.74

Source: OSDP Long An. Note: Low number of HH members due to single people renting and working in area.

3. Socio-economic and living conditions

33. **Road system.** National road N2 passes through the area over length of approximately 5.6 km which is all asphalt. In addition there are about nine inter-provincial roads, inter-district roads covering approximately 115.9 km which are all asphalt. Roads under district management reach approximately 134.782 km, some of these are asphalt, the remaining are spread red gravel, particularly commune to hamlet, and inter hamlet level.

34. **Electric power.** Duc Hoa, Hau Nghia town and Tan Phu and Duc Hoa Ha communes have 100% of households using the national grid. In the 13 remaining communes about 99.36% of households use the national grid. About 0.64% of household are not connected to the grid due to distance from the transmission corridor and their houses are separated from the main hamlets. Some of these households are using electricity from rechargeable batteries.

Table 11: Affected Commune electrification

	Communes	% HH using national grid	% HH without electricity
1	Đức Hòa town	100,00	00
2	An Ninh Dong commune	99,53	0,47
3	An Ninh Tay commune	99,83	0,17
4	Tan My commune	99,57	0,43
5	Hiep Hoa commune	99,18	0,82
6	Tan Phu commune	100,00	00
7	Hoa Khanh Dong commune	99,14	0,86
8	Hoa Khanh Nam commune	99,30	0,70
9	Hoa Khanh Tay commune	99,52	0,48
10	Duc Lap Thuong commune	99,15	0,85
11	Duc Lap Ha commune	99,06	0,94
12	Duc Hoa Thuong commune	99,60	0,40
13	Duc Hoa Ha commune	100,00	00
14	Duc Hoa Dong commune	99,01	0,99
15	My Hanh Bac commune	99,49	0,51
16	My Hanh Nam commune	99,30	0,70
17	Hau Nghia town	100,00	00

35. **Domestic water.** Almost all communes in the project area use water from dug or drilled wells. There are eight communes and the two towns where many households use town water supply as follows: Hau Nghia town 50.45%, Duc Hoa town 33.68%, Tan Phu commune 36.52%, Hoa Khanh Nam 34.68% and Hoa Khanh Tay 39,22% and a smaller number is other communes as follows:

Table 12: Domestic water supply in affected communes

	Commune	% household using clean water		
		From Drill wells	From Dug Wells	From the water plant or water purification station
1	Duc Hoa town	66,24	0,08	33,68
2	An Ninh Dong commune	96,69	3,31	
3	An Ninh Tay commune	98,99		1,01
4	Tan My commune	100		
5	Hiep Hoa commune	80,92	19,08	
6	Tan Phu commune	63,48		36,52
7	Hoa Khanh Dong commune	100		
8	Hoa Khanh Nam commune	65,25	0,07	34,68
9	Hoa Khanh Tay commune	60,78		39,22
10	Duc Lap Thuong commune	100		
11	Duc Lap Ha commune	98,20		0,80
12	Duc Hoa Thuong commune	100		
13	Duc Hoa Ha commune	100		
14	Duc Hoa Dong commune	95,25		4,75
15	My Hanh Bac commune	97,36		
16	My Hanh Nam commune	98,20		
17	Hau Nghia town	49,55		50,45

36. **Water for agriculture.** Almost all communes in the project area use underground water for agriculture, and have dug or drilled wells with their own resources, and in general these sources are dry in the dry season. Some irrigation water is taken from ponds, lakes, streams,

ivers. There is some irrigated water supply from the Vam Co Dong River. The proposed irrigation development would provide more reliable and extensive water supplies for agriculture and most people are therefore supportive of the project.

Table 13: Water for agriculture

	Communes	Water resources for agriculture			Irrigation canals pass through communes and the communal water use
		Water from drill wells/ wells %	From natural pond, streams, rivers %	Irrigation canal %	
1	Đức Hòa town	30	10	60	Chien Luoc canal
2	An Ninh Dong commune	30	05	60	Hoc ro canal
3	An Ninh Tay commune	20	10	70	Nha vuong canal
4	Tan My commune	35	05	60	Bung Bang canal
5	Hiep Hoa commune	35	05	60	Bau ca day canal
6	Tan Phu commune	20	10	70	Nhum branch
7	Hoa Khanh Dong commune	60	10	30	Thoi Moi inter-cannal
8	Hoa Khanh Nam commune	40	10	50	Canal No3
9	Hoa Khanh Tay commune	20	20	60	Ngang canal
10	Duc Lap Thuong commune	70	10	20	Hai Chau canal
11	Duc Lap Ha commune	75	05	20	Hai Thue canal
12	Duc Hoa Thuong commune	65	05	30	Bay Quang canal
13	Duc Hoa Ha commune	85	05	10	Ong Cat canal
14	Duc Hoa Dong commune	80	05	15	Canal No 7
15	My Hanh Bac commune	80	05	15	K2 canal
16	My Hanh Nam commune	85	05	10	KT4 canal
17	Hau Nghia town	90	0	10	Cầu Duyên canal

37. **Education.** Almost all communes in the project area have kindergarten and primary schools. There are 18 kindergartens with a total of 4,841 pupils, and 13,944 pupils attending 22 primary schools. The attendance ratio of pupils in kindergarten and primary school is reported as 100%. Nine out of 15 communes, and the two towns, have secondary schools with a total of 9,913 pupils with an attendance ratio of 100%. Duc Hoa town has 2 high schools with 2167 pupils, the percentage of pupils in age of going to school is 100%. Hau Nghia town also has 2 high school with 2031 pupils The eight remaining communes that do not have secondary school are: An Ninh Dong, Hiep Hoa, Tan Phu, Hoa Khanh Dong, Hoa Khanh Tay, Duc Hoa Ha, Duc Hoa Dong, My Hanh Nam communes. The pupils of these communes go to adjacent communes to study. An Ninh Dong commune has a junior high school with 1022 pupils and the rate of age of going to school is 100%. Most the facilities of these schools are very good including water and electrical supply, learning tools and ablution facilities.

Table 14: Education and schools in affected communes

	Commune	Kindergarten			Primary school			Secondary school			High school		
		No. School	No. pupils	Attendance Ratio %	No. School	No. pupils	Attendance Ratio %	No. School	No. pupils	Attendance Ratio %	No. School	No. pupils	Attendance Ratio %
1	Duc Hoa town	01	498	100	02	1998	100	1	1709	100	02	2167	100
2	An Ninh Dong commune	01	172	100	01	660	100				01	1022	100
3	An Ninh Tay commune	01	217	100	01	668	100	1	1056	100			
4	Tan My commune	01	299	100	02	937	100	1	913	100			
5	Hiep Hoa commune	01	186	100	01	438	100						
6	Tan Phu commune	01	154	100	01	544	100						
7	Hoa Khanh Dong commune	01	243	100	01	611	100						
8	Hoa Khanh Nam commune	01	133	100	02	781	100	1	860	100			
9	Hoa Khanh Tay commune	01	105	100	01	407	100						
10	Duc Lap Thuong commune	01	269	100	02	942	100	1	1307	100			
11	Duc Lap Ha commune	01	304	100	01	749	100						
12	Duc Hoa Thuong commune	01	317	100	01	709	100	1	492	100			
13	Duc Hoa Ha commune	01	314	100	01	966	100	1	631	100			
14	Duc Hoa Dong commune	01	217	100	01	535	100						
15	My Hanh Bac commune	01	445	100	01	976	100	1	1158	100			
16	My Hanh Nam commune	01	252	100	01	656	100						
17	Hau Nghia town	02	716	100	02	1367	100	1	1787	100	02	2031	100

38. **Health.** All communes in the project area have health stations and doctors. Duc Hoa Township has doctors at private clinics and hospitals but not at the outposted health stations. There are 3 health stations newly built to national standards in the area. In general all health stations are in relatively good condition with adequate facilities and are able to meet the usual treatment needs for local people.

Table 15: Health facilities in affected communes

	Communes	Health station				
		Number of health stations	Number of beds	Number of doctors	Number of paramedics and nurses	Quality of facilities
1	Đức Hòa town	01	05		05	
2	An Ninh Dong commune	01	05	01	7	
3	An Ninh Tay commune	01	05	01	9	
4	Tan My commune	01	05	01	8	Newly built
5	Hiep Hoa commune	01	05	01	6	
6	Tan Phu commune	01	05	01	7	
7	Hoa Khanh Dong commune	01	05	01	5	
8	Hoa Khanh Nam commune	01	05	01	8	
9	Hoa Khanh Tay commune	01	05	01	5	
10	Duc Lap Thuong commune	01	05	01	6	
11	Duc Lap Ha commune	01	05	01	6	
12	Duc Hoa Thuong commune	01	05	01	8	Newly built
13	Duc Hoa Ha commune	01	05	01	6	
14	Duc Hoa Dong commune	01	05	01	8	
15	My Hanh Bac commune	01	05	01	6	
16	My Hanh Nam commune	01	05	01	8	
17	Hau Nghia town	01	05	01	8	

4. Ownership of land

39. On average, each household owns from 2000 m² to 5.000 m², and there are numerous households owning a few hectares of land.

5. Income and employment

40. Most of the households in affected communes derive their primary source of income from agriculture and in addition, some households will have income from sources such as: handicraft production, trade and services. Handicrafts include making traditional conical straw hats, bamboo and cane weaving, making rice cakes, making brooms and brushes, small scale rice milling, peanut shelling, husking corn by machine, pressing peanut for oil. Some of the younger people work in the adjacent industrial park.

Table 16: Main occupations

No	Communes	Total of HH	Occupation			
			Farming and animal husbandry (HH)	Handicraft (HH)	Services / trade (HH)	Others (HH)
1	Duc Hoa town	3203	240	130	896	1937
2	An Ninh Dong commune	2053	1125	214	220	494
3	An Ninh Tay commune	2550	1476	120	370	584
4	Tan My commune	3112	1781	62	339	930
5	Hiep Hoa commune	2537	1014	116	289	1118
6	Tan Phu commune	2391	1414	74	197	760
7	Hoa Khanh Dong commune	2539	839	60	302	1138
8	Hoa Khanh Nam commune	1960	589	30	192	1149
9	Hoa Khanh Tay commune	2395	1126	50	281	938
10	Duc Lap Thuong commune	2591	1093	94	368	1036
11	Duc Lap Ha commune	2935	1110	62	315	1448
12	Duc Hoa Thuong commune	4160	1023	87	312	2738
13	Duc Hoa Ha commune	3378	404	47	583	2344
14	Duc Hoa Dong commune	3643	530	59	306	2748
15	My Hanh Bac commune	2736	556	43	370	1767
16	My Hanh Nam commune	3328	1098	71	298	1861
17	Hau Nghia town	3894	602	85	1100	2107
	Total	45511	15418	1319	5638	22990

41. **Income.** Most farmers in region have income from rice, peanuts, and some communes plant sugar-cane to supply Hiep Hoa sugar company, the remaining have income from agricultural as corn, crops, livestock husbandry.

Table 17: Average Incomes in Affected Communes

	Commune	The average income Dong/household/year	The average income Dong/person/year
1	Duc Hoa town	57,570,000	15,000,000
2	An Ninh Dong commune	34,650,000	9,000,000
3	An Ninh Tay commune	28,880,000	7,500,000
4	Tan My commune	44,260,000	11,500,000
5	Hiep Hoa commune	42,350,000	11,000,000
6	Tan Phu commune	46,210,000	12,000,000
7	Hoa Khanh Dong commune	44,280,000	11,500,000
8	Hoa Khanh Nam commune	40,430,000	10,500,000
9	Hoa Khanh Tay commune	42,350,000	11,000,000
10	Duc Lap Thuong commune	51,980,000	13,500,000
11	Duc Lap Ha commune	52,940,000	13,750,000
12	Duc Hoa Thuong commune	51,980,000	13,500,000
13	Duc Hoa Ha commune	53,910,000	14,000,000
14	Duc Hoa Dong commune	51,980,000	13,500,000
15	My Hanh Bac commune	51,020,000	13,250,000
16	My Hanh Nam commune	52,940,000	13,750,000
17	Hau Nghia town	54,870,000	14,250,000

6. Poverty and gender

42. Almost all households the main occupation of households is farming so incomes are relatively low. The average per capita income of a farming household is about D5,195,000 per year. Poverty households are usually those with little or no land, and also those with labor shortages.

Table 18: Poor households in communes of Project in 2009

No	Commune	Provincial standard	Ratio	Central standard	Ratio	Total of household	Ratio
1	Đức Hòa town	85	2.65	10	0.31	95	2.96
2	An Ninh Dong commune	280	10.94	134	5.25	414	16.19
3	An Ninh Tay commune	126	6.14	20	0.97	146	7.11
4	Tan My commune	247	9.74	51	2.01	298	11.75
5	Hiep Hoa commune	69	2.89	8	0.33	77	3.22
6	Tan Phu commune	78	3.26	33	1.38	111	4.64
7	Hoa Khanh Dong commune	154	7.7	19	0.97	173	8.67
8	Hoa Khanh Nam commune	50	1.93	8	0.32	58	2.25
9	Hoa Khanh Tay commune	72	2.66	18	0.49	90	3.15
10	Duc Lap Thuong commune	89	3.03	36	1.23	125	4.26
11	Duc Lap Ha commune	50	1.89	46	1.74	96	3.63
12	Duc Hoa Thuong commune	71	2.31	9	0.29	80	2.6
13	Duc Hoa Ha commune	137	4	67	1.98	204	5.98
14	Duc Hoa Dong commune	24	0.72	8	0.24	32	0.96
15	My Hanh Bac commune	16	0.58	5	0.18	21	0.76
16	My Hanh Nam commune	22	0.6	23	0.63	45	1.23
17	Hau Nghia town	110	2.82	29	0.74	139	3.56

43. Long An province is implementing poverty reduction programs as per Decision 20/2007/QĐ-TTg 5th February, 2007, of the Prime Minister's Office. These programs include:

- (i) Incomes of poor households to increase by 1.45 times, in comparison with 2005
- (ii) Support for infrastructure development in poor communes, communal areas and remote areas
- (iii) 100% poverty standard household of the province are eligible for preferential bank loans from social policy banks to business
- (iv) Provide 100% health insurance cards to the certified poor people and support for near poor households to buy health insurance since 2009
- (v) Reduction and exemption of tuition fees for poor students at all levels and trainees
- (vi) Training and capacity building for officials at all levels working on poverty reduction
- (vii) Provide training on agriculture - forestry and fisheries, training and support creation job

(viii) Building houses for poor households

(ix) Commune officials specifically focused on poverty alleviation work

Table 19: Results of poverty reduction of Long An province in period 2006 - 2010

No	Targets / tasks	Unit	Result of period 2001-2005	Implementation of the year in the period 2006-2010					Results period 2006-2010
				2006	2007	2008	2009	2010	
	Poverty Reduction								
1	Total households	HH	323,015	329,741	336,867	344,526	361,736	365,000	365,000
	The number of poor by central standard	HH	40,202	25,431	21,606	19,106	11,510	6,889	6,889
	- The percentage of poor HH by central standard	%	12.44	8.83	6.70	3.34	3.34	1.91	1.91
	Provincial standards of poor households	HH		-	-	-	36,327	30,411	30,411
	The percentage of poor HH Provincial standard	%		-	-	-	10.50	8.40	8.40

44. More information on the results of the Long An Poverty Reduction program implementation is provided at Annex 1 to this report.

7. Agricultural Production in Duc Hoa Affected Communes

45. Most communes in the project area cultivate rice which accounts for 66.82% of total area in 2009, peanut accounted for 16.38% and maize 8.64%. Remaining areas are planted with sugar cane and other crops such as tobacco, watermelon or grasses for livestock.

Table 20: Agricultural Production in Duc Hoa Affected Communes

Crops type	Productive area (ha)	Percent (%)
Productive area in 2009	40,790	100.00
Rice	27,257	66.82
Peanut	6682	16.38
Corn cob	3,526	8.64
Tobacco	100	0.25
Crops	1,475	3.62
Watermelon	150	0.37
Grassland	290	0.71
Sugar cane	1,310	3.21

46. Farmers report numerous problems with crop pests, depending on weather and seasons. The most widespread problem is brown leaf hoppers. During the 2008-2009 Winter-

Spring season brown leaf hoppers occurred in average density but, in March 2009 leaf hoppers appeared with the density of 3000-5000 hopper/m² on 555 hectares. In the Summer–Autumn brown leaf hoppers appear with low density causing no significant damage. Other problems such as leaf roller, stem borers, leaf folder, yellow leaf, rice blast disease occur everywhere with low-level damage.

47. **Livestock.** In affected communes the total number of buffaloes are 5,368, cattle 51,468, dairy cattle 3,430, pigs 30,216, and poultry number 450,575.

48. **Marketing arrangements.** Farmers deal in a free market environment. The main agricultural products are collected by traders, and smaller scale production or remaining products are sold in local markets. The price is decided by the traders and many traders will set the price to exploit the farmers, there are no stable commodity markets for farmers.

49. **Agricultural inputs.** Most farmers use large amounts of fertilizers, pesticides and herbicides as advised by the direction of the District Agriculture Development Dept. There are many inputs of unknown origin that are sold in the market, without quality guarantees or instructions on usage. These products are available in large quantities from Agri-agencies, local agricultural supplying stores, but there are also some products that are out of date or not subject to quality control that are sold freely in the market.

50. **Need for, and use of credit.** Credit is essential for farmers however the interest rates are considered high by farmers and, due to the absence of a stable market price, farmers hesitate to borrow money. Farmers express the need for credit but with preferential interest rates, and remedial policies in cases of crop failure.

Table 21: Average yields for main crops

Crops type	Productive area (ha)	Productivity average (Ton/ha)	Total Yield (ton)
Total Productive area 2009	39,305		
Rice	27,257	2.89	78,877
Peanut	6682	2.93	19,553
Corn cob	3,526	4.31	15,212
tobacco	100	1.60	160
Crops	1,475	2.03	29,961
Watermelon	150	2.09	3,135
Grassland	290	37	10730
Sugar cane	1,310.5	48.6	63,677

8. Disposal of agri production

51. In general farmers use 50% to 65% of their total rice output for their own consumption and household use. Consumption of vegetables and fruits ranges from 10% to 50% depending on the type of trees and purposes of cultivation. Those HHs growing on large areas for

commercial production will use around 10% - 20%. In regards to home gardens, HHs will use most of the production.

F. Tan Bien Irrigation System

52. The Tan Bien Irrigation System is a complexity of gravity and pumping irrigation system, located in Tay Ninh province. Of a total area of 7,670 ha some 5,663 ha is gravity fed and the remaining 2,007 ha will be pumped. It is estimated that the acquired land will be 495 ha for secondary and tertiary canals (the total acquired land will be 620 ha). It will benefit An Co commune in Chau Thanh district, and also benefit and affect 231 households in Phuoc Vinh commune of Chau Thanh district, and also, 77 households in Hoa Hiep, 79 households in Thanh Tay and 46 households in Tan Binh communes of Tan Bien district. Total households affected will be 433 households, comprising 1,951 people.

1. Demographic Information of Communes in the Project Area

53. There are 5 communes in the Tan Bien irrigation area, of which only 4 will be affected by resettlement or land acquisition. Almost people in the 4 affected communes are of majority Kinh ethnicity. There are some ethnic minority groups as indicated below:

- a) **Hoa Hiep commune.** This commune has a total of 1,985 households of which 135 households (6.8%) comprising 739 are from minority groups. Some 132 persons, approximately 30 households, are Khmer, and 3 households, totaling 13 persons, are of Hoa ethnicity. Of the total minority households, 31 (23% of EM HHs) are poor.
- b) **Tan Binh commune.** This commune has a total of 1,210 households, of which 12 households (approximately 1% of HHs) and comprising 53 people are of minority ethnicity. Eleven of these households are of Muong ethnicity and one is Tay. Of these 12 households, three (25%) are poor.
- c) **Thanh Tay commune.** This commune has a total of 2,051 household of which 29 households (107 people) are of ethnic minority. This represents 1.41% of all households in the commune. There are 19 households of Muong ethnicity, 4 households are Hoa, 3 Khmer households, 1 household is Khana, 1 household is Tay and 1 household is Nung. Thirteen of these households are poor, representing about 45% of the total minority households.
- d) **Phuoc Vinh commune.** This commune has a total of 2,568 households of which 22 households (under 1% of total) comprise 112 persons are of minority ethnicity. Of these, 21 households are Khmer ethnic, 1 household is Ede ethnicity.

Table 22: Demographic data and Ethnicity in affected communes.

Commune	Number of hamlets	Number of households			Number of people			Average persons /household
		Kinh	Ethnic	Total	Kinh	Ethnic	Total	
Chau Thanh District								
Phuoc Vinh	8	2546	22	2568	11531	112	11643	4,57
		99.14%	0.86%	100%				

Tân Biên District								
Hòa Hiệp	4	1850	135	1,985	7784	752	8,536	4.3
%		93,20%	6,80%	100%				
Tân Bình	4	1,198	12	1,210	5,063	53	5,116	4,22
%		99,01%	0,99%	100%				
Thanh Tây	5	2,022	29	2,051	9,766	107	9,873	4,81
%		98,59%	1,41%	100%				

Source: From Commune People's Committees June 2010

2. Socio-Economic and Living Conditions

54. **Roads and Access.** The roads systems in the affected communes are relatively good, most inter-district roads, inter-communal roads are paved, inter-village roads are compacted red soil and provide all year transportation. However, most communes are keen to surface the internal roads to create more favorable conditions for the transportation of raw materials and products of the farmers, and thereby reducing transportation costs.

55. **Electric power.** Most communes in areas have access to electricity from the national electricity grid, but some communes still without electricity. These are usually those located far away from the grid making connection too expensive. In upland communities where connection is also too costly, some households are using battery power. All communes have plans to apply for government support to provide 100% of households with electricity from the national grid.

Table 23: Percentage of Households with Grid Connection

No	Commune	% households using the national electric grid	% Households without electricity
I	Châu Thành District		
1	Phước Vinh	98,00%	2,00%
II	Tân Biên District		
2	Hoa Hiep	92,54%	7,46%
3	Tan Binh	98,00%	2,00%
4	Thanh Tay	95,81%	4.19%

56. **Domestic Water Supply.** Domestic water in the communes in the affected communes is generally clean. In Hoa Hiep commune, 92.52% households use clean water which is drawn from drilled wells and dug wells. Two water supply systems were built in this commune, one from Program 134 servicing about 140 households of minority ethnicity, and one from the poverty reduction program of the government, servicing about 120 households. In Tan Binh commune, most water is from wells, although two water supply systems have been installed. One system was built in 2003 in Tan Thanh hamlet, for approximately 370 households, and one was built in 2005 for about 150 households. In Tan Thanh commune, most people use wells, and a water supply system was built in 2009 to provide water for Thanh Trung and Thanh Tan hamlets with enough capacity to supply water for 500 households. In Phuoc Vinh commune approximately 87% of households use wells, the remaining 13% of households are along the Vam Co River and use river water.

57. **Water for Agriculture.** Most households of the 5 communes of Tan Bien irrigation project area carry out rainfed agriculture as there is currently insufficient water in the rivers and streams. Some households may use water from wells for watering small scale crops and gardens. Hoa Hiep is extremely hot from December to May and suffers from depleted groundwater resources. Communities would like to have irrigation for crops such as rice, beans, vegetables, sugar cane and maize. Rubber plantations would also benefit from irrigation. More recently, some households have drilled wells to obtain groundwater for irrigation or pumped water from Vam Co River water, but the supply is not reliable and as a result, in many instances, there is only one rice crop per year. Communities are looking forward to the irrigation scheme being constructed as they expect to be able to undertake incr

58. **Education.** The communes in the project area have kindergartens, primary school and junior secondary school, but there are no senior high schools. Hoa Hiep commune has five schools of which two are kindergarten, 2 are primary schools and these are all somewhat degraded. One junior high school has just been built. Tan Thanh and Tan Binh have both permanent and semi-permanent schools but these are not in good condition and require upgrading. Due to the lack of senior high schools in the area, students in these communes go to Tran Phu high school in Tan Bien town, some 8 km to 10km from their houses.

Table 24: Education Facilities

	Commune	Kindergarden			Primary schools			Secondary school		
		No. of schools	No: of school age people	% pupils go to school	No: of school	No: School age people	% pupils go to school	No: of school	No: School age people	% pupils go to school
I	Châu Thành district									
2	Phước Vinh	1	206	100	5	487	100	1	518	96.00
II	Tân Biên district									
2	Hoa Hiep	2	190	100	2	124	100	1	98	96,90
3	Tan Binh	1	-	75	2	453	100	1	340	96,80
4	Thanh Tay	1	166	100,	7	686	100	02	355	97,00

59. **Health.** There are health stations in three communes: Hoa Hiep, Thanh Tay and Tan Binh, which do not have doctors as permanent staff but have numerous paramedics and nurses. The quality of the health stations in Tan Binh and Thanh Tay communes are relatively good, but the station in Hoa Hiep is degraded, and the commune has proposed further investment from Phase 2 of Program 135 for poor communes.

Table 25: Health Service Facilities

No	Commune	Number of health stations	Number of sick beds	Number of doctors	Number of paramedics and nurses
I	Châu Thành District				
1	Phuoc Vinh	1	5	1	5
II	Tân Biên district				
2	Hoa Hiep	1	5	0	4
3	Tan Binh	1	4	0	4
4	Thanh Tay	1	5	0	4

60. **Postal and Communications services.** All communes have post offices, Commune People's Committee and many households have registered home telephones or cell phones. Central and local television is broadcasted in the region. In general, media and information communication in the project area is relatively good.

61. **Ownership of land.** In the affected communes, most farmers own several parcels of land and the average area of garden and agricultural land ranges from 1 to three hectares. Some larger landholders with over 20 hectares have migrated into the area and bought land for planting rubber trees. Most of the large land owners are in Tan Thanh commune, there are also a few in Hoa Hiep and Tan Binh communes. In Phuoc Vinh commune of Chau Thanh district most land held ranges from 0.5 to 5 hectares. Similarly, a few people have migrated in from other places to buy land and invest in rubber plantations with the area usually over 20 hectares.

Table 26: Land Areas

Commune	Area and percentage of natural land (ha)	Area and percentage of residential land (ha)	Area and percentage of agricultural land		Area and percentage of forestry land	Area and percentage of aquaculture land	Area and % of non-agriculture land and other lands
			Land for planting perennial trees	Land for planting annual crops			
Phuoc Vinh	7424	85.19	2176.61	3772.21	820	3.99	566
	100%	1.15%	29.32%	50.81%	11.05%	0.05%	7.62%
Hoa Hiep	8854	56	3566	2877	1809	0	546
	100.00%	0.63%	40.28%	32.49%	20.43%	0.00%	6.17%
Thanh tay	5820	70.15	1926	3446.79	4.7	22.36	350
	100%	1.21%	33.09%	59.22%	0.08%	0.38%	6.01%
Tan Binh	17301	37.92	737.64	1053.89	15226	0.55	245
	100%	0.22%	4.26%	6.09%	88.01%	0.00%	1.42%

3. Income and employment

62. Main occupations in the area are agriculture based with other income generating activities such as weaving, small scale trading and retailing, or seasonal laboring on other farms. A minority are government officials and retired officials and numerous people work off farm in other locations. There are other cottage industries such as brick kilns, poultry farms, but the numbers are few and only attract a small number of employees from within the commune.

Table 27: Main Occupations in Affected Communes

No	Communes	Occupation				
		Farming and animal husbandry (% HHs)	Handicraft (% HHs)	Government officials, and retired (% HHs)	Services / trade (% households)	Others (%HHs)
I	Châu Thành district					
1	Phước Vinh	95.00	0.50	2.00	2.00	0.50
II	Tân Biên district					
2	Hoa Hiep	93.50	0.50	2.50	2.00	2.00
3	Tan Binh	85.28	1.94	2.00	5.28	5.50
4	Thanh Tay	85.80	1.30	1.50	10.20	3.20

63. **Income Levels.** Most income of households in the area are from agriculture, and households have relatively higher-incomes because of larger land holdings than in other areas.

Table 28: Average Incomes

No	Communes	Average income dong/household/year	Average income Dong/person/year
I	Châu Thành district		
1	Phước Vinh	49,127,500	10,075,000
II	Tân Biên district		
2	Hoa Hiep	38,270,000	8,900,000
3	Tan Binh	44,943,000	10,650,000
4	Thanh Tay	51,948,000	10,800,000

4. Poverty and Gender

64. In the period 2006 until 2010, the implementation of the national target program on poverty in Tay Ninh province has accelerated poverty reduction; reducing the number of poor households and further improving living and production conditions in poorer communes and those communes with special difficulties.

Table 29: Number of poor households in Tan Bien affected communes

Year	Phước Vinh		Hòa Hiệp		Thanh Tây		Tân Bình	
	Inner	Outer	Inner	Outer	Inner	Outer	Inner	Outer
2006	259	n/a	261	60	316	31	155	159
2007	218	n/a	176	213	275	147	97	206
2008	175	63	138	220	160	175	68	179
2009	114	44	89	170	171	106	76	140

Note: Inner means within commune center, Outer means outside commune center

Source: OSDP Tan Bien June 2010

65. Tay Ninh province identified nine indicators for poverty reduction targets during the period 2006 to 2010:

- (i) Incomes of poor households to increase by 1.45 times, in comparison with 2005
- (ii) Support for infrastructure development in poor communes, communal areas and remote areas
- (iii) 100% poverty standard household of the province are eligible for preferential bank loans from social policy banks to business
- (iv) Provide 100% health insurance cards to the certified poor people and support for near poor households to buy health insurance since 2009
- (v) Reduction and exemption of tuition fees for poor students at all levels and trainees
- (vi) Training and capacity building for officials at all levels working on poverty reduction
- (vii) Provide training on agriculture - forestry and fisheries, training and support creation job
- (viii) Building houses for poor households
- (ix) Commune officials specifically focused on poverty alleviation work

5. The Poverty Reduction Results of Tay Ninh province

66. In 2005, Tay Ninh province confirmed having 28,200 poor households, accounting for 12,34% of total households in the province. By the end of 2008, this had reduced by about 32% with some 9,060 households lifted out of poverty. At the end of 2009, the number of poor households in Tay Ninh province was 14,862 households, indicating an overall reduction of about 50% over a 5 year period. Of these, 6,765 are classified as poor households by government standards. These reductions have been achieved through implementation of government poverty reduction policies and programs such as:

67. **Program 134.** For ethnic minorities households in areas such as (i) support to replace temporary houses with construction of new houses, (ii) residential land allocation to landless households, (iii) production land allocation to landless households, (iv) support for drilling clean water wells.

68. **Program 135.** For the poor such as: (i) financial support for livestock production for poor households (ii) the Policy Bank supporting poor households with loans for cattle raising, agriculture production training and assistance through the farmers union, women's unions, and the Communist Youth Union of Ho Chi Minh City has helped poor households to borrow money from Policy Bank for agri-production, trading, livestock breeding, housing, clean water wells, loans for education of children, and also vocational training.

69. Building houses for poor households, including vulnerable households under the program to replace temporary houses under government Decision No. 167/QĐ/2008-TTg (12th December 2008) in conjunction to each communes strategy to attract private funding to compliment government programs. From 2009 to mid 2010, Thanh Tay commune has 18 such houses, Hiep Hoa commune has 25, Phuoc Vinh has 52.

70. **Gender.** Women in affected areas by Tan Bien irrigation area are engaged in agriculture. Every commune has Women's Union commune, and within this are Women's Groups active at hamlet level and engaged in various activities aimed at improving rural women's livelihoods. Local Women's Groups are involved in activities and programs such as:

- Savings and Credit Groups: the women contribute their own capital make loans available to members,
- They can borrow loans from policy banks to drill wells, build latrines, for children go to school, capital raising production
- Women are participating in vocational training courses such as growing mushrooms, growing and tapping rubber, pig raising and feeding
- For women classed as poor by central government standards (MOLISA), there are additional benefits such as: (i) free medical treatment books and free health insurance (ii) monthly support for having young children (iii) gifts for Tet, (iv) participate in the Policy Bank's loan programs, (iv) replacing temporary houses under the government Decision 167, and, (v) participating in vocational training.

6. Agricultural Production in Tan Bien Area

71. The main crops grown in the project area are rice 25.68% of area, cassava 34.45% and perennial plants have relatively large area with 29.48%, sugar cane and other types of crops reached nearly 10%.

Table 30: Area of Agricultural Crops in Tan Bien Area

Crops type	Productive area (ha)	Percent (%)
Productive area in 2009	28,515	100.00
Rice	7,322	25.68
Cassava	9,823	34.45
Sugar cane	1,406	4.93
Vegetable and other crops	1,558	5.46
Perennial land	8,406	29.48

72. The communes in the area are subject to land-use planning but the local people have used their land according to the needs of market. Because there are no main completed irrigation systems in the communes rice is grown mainly in low-lying areas along rivers and streams. Sugarcane and cassava are grown in upland areas. Since 2003, due to the high price of rubber production the areas of rubber plantation have been increasing. The communities tend to plant rubber trees on hilly land and revert to sugar cane in the low-land areas as it will yield double in comparison with planting sugarcane and cassava in upland areas.

Table 31: Agricultural Production in Tan Bien Area

Crops type	Productive area (ha)	Productivity average (Ton/ha)	Yield (ton)
Productive area in 2009	39,305		
Rice	7,322	5	36,610
Cassava	9,823	30	294,690
Sugar cane	1,406	60	84,360
Vegetable and other crops	1,558	3	4,674
Perennial land	8,406	4.5	37,827

73. In regards to marketing the main agricultural products, large numbers collected by traders, and the remainder is sold in the local market. Prices are decided by traders, if there are many products, traders set output price very low for exploitation, and farmers complain about the lack of a stable market for their produce.

- Rubber products for preliminary processing facilities in Tay Ninh (20 facilities)
- Cassava sold to private traders or processing facilities. Processing facilities at the present need the products of 1,900,000 tons per year but farmers in the province only satisfy about 1,400,000 tons. Therefore these production facilities must buy from other provinces or from Cambodia.
- Sugarcane is sold to Bien Hoa Sugar Company, Bourbon Sugar Company purchasing
- Rice is sold to traders who buy from farmers' houses.

- Tobacco is sold to preliminary drying facilities and those facilities then sell to tobacco factories.
- Fruit and vegetable consumption mainly in the province

74. Use of agricultural inputs as seeds, fertilizer, pesticides is widespread. Farmers are using large amounts of fertilizers, pesticides and vegetation protection liquids under the direction of the District Agriculture Development, but there are many of unknown origin that are sold in the market, without quality guaranteed. Inputs in agricultural production are available in large quantities from Agri-agencies, local agricultural supplying stores. But there are also some products that out of quality control, or expired, sold freely in the market.

75. Most rice seed is produced by farmers, a small number of seeds from the Institute of Rice in Mekong River Delta. In regards to sugarcane and rubber trees, there are companies that provide planting material directly to households.

76. In regard to credit usage up to 71.1% of households in the past 12 months have borrowed. Those HHs with production land have higher rate of loans (75.2% of households have loans) compared with households without farming land (65.7% of household borrowing).

- a) Loans to poor households are primarily invested in livestock (57.5%), loans for medical treatment (12.5%) and every day living (17.9%).
- b) For households with productive land credit is mainly used for investment in agriculture production (70.4%), livestock breeding (21.5%). In addition, credit is also used for other purposes such as medical treatment and education.

77. The average loan taken by households in the past year was D45,150,280, and poor families, households with no land borrowed an average of D12,028,570.

78. Loan sources of households are mostly from banks and the percentage of households with loans from Rural Development Bank is the highest (44.5%) and from Policy Bank is (31.8%). However, there are 11% of households who have borrowed from informal sources with interest rates relatively high. Households having land, often borrow in Rural Development Banks, Policy Banks and from some other banks, while poor households, households without land mainly concentrate with loans from Policy Banks and Poverty Reduction Funds.

79. Through group discussion together, according to farmers, there are obstacles to borrowing from banks such as: (i) Client screening mechanism is complicated, costly, (ii) Cost of access to credit services remains high, time to review the loan extended, (iii) Budget patterns and interest rates are not reasonable.

ANNEX 1: DATA REQUESTED FOR PSA

PSA Data Requirements

The following data needs to be updated for the PSA. It should be collected for Affected Communes in the Tan Bien Irrigation area, Duc Hoa irrigation area and the Duc Hoa main canal.

1. Number and names of affected communes
2. Name of villages in each affected commune
3. Number of Households in each commune
4. Migration into and out of commune in the last 12 months – main reasons
5. Type and category of housing in affected communes
6. Ethnicity of households and numbers per ethnic group by commune
7. Number of men and women, also a break down by age groups by sex – particularly pre-school age, at school, those that are working, and the number of elderly (those that do not work anymore). Ratios
8. Number of disadvantaged and vulnerable Households – chronically sick, women headed households etc by commune.
9. Education levels – men and women
10. Literacy and show differences between men and women
11. Main occupations, percentages, into categories used previously
12. Average incomes if possible by source, occupation category
13. Number of Households and people under the poverty line and what indicators are used to define poverty. Also related to ethnicity if available
14. Average landholding area per household and details of type of land – agric – rice paddy, uplands, tree crops and type, irrigated, rainfed
15. Crops grown in commune with areas
16. Number of people with LURC and those without
17. Total area currently using irrigation by commune and main irrigated crops
18. Marketing arrangements – where and how crops are sold.
19. Use of agricultural inputs
20. Availability of agriculture inputs and main inputs used
21. Need for credit for production and then use of credit – average amounts borrowed each year and source of credit. Is more needed?
22. Agriculture production – average yields for main crops
23. Disposal of agri production - % consumed by HH and % sold
24. Gender and poverty conditions
25. Commune services available – schools, health services, roads, communications
26. Living conditions – water supply, electricity
27. Community priority needs – education, health, roads, irrigation, credit, inputs, extension services, marketing?

ANNEX 2: FURTHER DETAILS OF RESULTS OF LONG AN POVERTY REDUCTION PROGRAMS

No	Targets / tasks	Unit	Result of period 2001-2005	Implementation of the year in the period 2006-2010					Results period 2006-2010
				2006	2007	2008	2009	2010	
2	Implementing national poverty reduction Programmes		-	-	-	-	-	-	-
2.1	Number of times HH get loans in the period	time	206,140	49,415	62,000	46,854	65,000	72,000	295,269
	Ave Loan amount	Million dong	864,018	319,000	413,000	336,000	1,030,000	1,200,000	3,298,000
2.2	Number of time poor HH are received Agriculture training	HHs	258,355	4,116	5,069	5,649	6,122	6,500	27,456
	Implementation funding	Million dong	11416	100	100	104	1,164	1,164	2,632
2.3	Number of poor HH got production support	HH	1018	85	1,007	507	470	500	2,569
	Implementation funding	Million dong	1158	43	500		4,288	5,000	9,831
2.4	The number of poor HH request housing	HHs	2496	3,530	1,200	1,329	2,668	14,262	22,989
	Number of HH supported in year	Household	1000	672	1,048	330	1,822	3,150	7,022
	Implementation funding	Million VND	13016	8,435	10,000	11,123	37,740	47,250	114,548
2.5	Number of poor commune (out of program 135)	Commune	51	3	3	3	22	15	46
	- Number of communes have assistance to build infrastructure in year	commune	151	-	54	61	20	15	150
	+ Number of works	base	355	8	6	6	42	35	97
	+Implementation funding	Million dong	82716	2,122	5,500	5,425	2,400	3,000	18,447
2.6	Number of trained staff working in poverty reduction	Person	4355	1,955	800	799	850	850	5,254
	Implementation funding	Million dong	1270	270	200	280	245	280	1,275

No	Targets / tasks	Unit	Result of period 2001-2005	Implementation of the year in the period 2006-2010					Results period 2006-2010
				2006	2007	2008	2009	2010	
2.7	Number of persons in poor HH supported in health, education	Person	31,830	118,765	116,250	108,900	145,000	166,750	655,665
	- Number of people health insurance card	Ppl	338935	118,765	105,381	116,250	134,910	130,800	606,106
	Implementation funding	Million dong	15790	7,126	6,975	8,430	29,788	33,119	85,438
	- The number of students are exempt from fees,	pupil	218344	82,000	31,004	23,476	16,000	17,000	169,480
	Implementation funding	Million dong	20602	13,313	1,690	1,699	1,725	1,875	20,302
2.8	No.ppl in vulnerable HH are supported health, education	Person		-	895	-	-	-	895
	-Number of people issued health insurance	Person		-	796	-	-	-	796
	Implementation funding	Million dong		-	99	-	-	-	99
III	Implement social support			-	-	-	-	-	
1	<i>Extraordinary relief</i>								
	Number of relief HHs	household	41,922	29	526	639	153	-	1,347
	- Population of relief	Person	98	811	2,165	2,066	103	-	5,145
	- Implementation funding	Million dong	13,850	61	3,832	269	683	-	4,845
	Of which: - central budget	"	8,460	-	-	-	0	-	0
	- Local budgets	"	3,555	61.14	543	269	683	-	1,555
	- Mobilizing the community	"	1,835	-	3,290	-	0	-	3,290
2	<i>Regular social assistance</i>								
2.1	Total number of person need social assistance	Person	23,014	4,183	12,656	12,764	25,652	30,880	86,135
	- Elderly	"	7,555	1,255	10,108	10,388	20,600	15,000	57,351

No	Targets / tasks	Unit	Result of period 2001-2005	Implementation of the year in the period 2006-2010					Results period 2006-2010
				2006	2007	2008	2009	2010	
	- Disabled people	"	9,850	2,022	1,994	1,951	3,163	15,000	24,130
	- Children with special circumstances difficult	"	5,609	906	554	425	886	500	3,271
	- Other Subjects	"		-	-	-	1,003	380	1,383
2.2	Number of eligible subjects were social support in community	người	18,112	4,183	12,656	12,925	14,616	18,480	62,860
	- Elderly	"	6,055	1,255	10,108	10,388	11,654	14,890	48,295
	- Disabled people	"	8,954	2,022	1,994	1,951	2,281	2,680	10,928
	- Children with special circumstances difficult	"	3,103	906	554	425	438	530	2,853
	- Other Subjects	"	-	-	-	161	243	380	784
	- Implementation funding	Million dong	10,394	4,016	18,957	21,062	23,688	27,706	95,429
2.3	Number of person raised at Social Protection base	Person	155	151	182	202	208	265	1,008
	- Elderly	"	23	25	29	28	27	30	139
	- Disabled people	"	115	21	17	19	177	30	264
	- Children with special circumstances difficult	"	17	8	3	3	4	5	23
	- Other Subjects	"		97	133	152		200	582
	- Implementation funding	Million dong	1,548	308	490	727	749	1,431	3,705
3	<i>Basis of social protection</i>		-	-	-	-	-	-	0
	- Number of basic in local	basic	1	-	1	-	1	1	3
	In which: + The State Department	"	1	-	1	-	1	1	3
	Non-state basis	"	0	-	0	-	0	0	0
	- Number of basic are invested in period	"	1	-	1	-	1	1	3

No	Targets / tasks	Unit	Result of period 2001-2005	Implementation of the year in the period 2006-2010					Results period 2006-2010
				2006	2007	2008	2009	2010	
	In which: + The State Department	"	1	-	1	-	1	1	3
	Implementation funding	Million dong		1,015	1,391	1,730	2,470	2,698	9,305
4	Number of persons are wheelchair support and assistance medical	Người	1,147	4,183	13,501	13,178	14,616	18,480	63,958
	Implementation funding	Million dong	977	251	810	1,925	3,227	4,080	10,294