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CHAPTER 1.

GENERAL INFORMATION ON THE PROJECT

1.1. Introduce to project

The Prime Minister issued Decision No. 1621/QĐ-TTg on the investment of the “Hanoi-Haiphong highway project”, the first type of Vietnamese highways built according to international standards. The route starts at the third ring road of Ha Noi, and ends at Hai Phong city. This highway route runs across Ha Noi, Hung Yen, Hai Duong and Hai Phong.

1.2. The location of route

The beginning: locate on the third ring road of Ha Noi, 1025m away from Thanh Tri abutment, 1420 m to Red river Dyke from Bac Ninh, belonging to Thuong Hoi village, Thach Ban precinct, Long Bien district, Ha Noi city.

The research scope of the project has been identified as appropriated plan and area influenced by the activities of the project. Therefore, the research scope of highway Ha Noi to Hai Phong runs across provinces, including villages, communes, district, city as follows in table 1.1:

Table.1.1. The villages where the highway runs across

Ordinal	Province/ City	Urban district/ district	Precinct/Commune	Location
1	Ha Noi	Long Bien	Thach Ban	Km 0 - Km 6,1
		Gia Lam	Da Ton, Kieu Ky	
2	Hung Yen	Van Giang	Cuu Cao, Long Hung, Tan Tien	Km 6.1 - Km 25
		Yen My	Hoang Long, Yen Phu, Viet Cuong, Minh Chau, Thuong Kiet, Tan Viet	
		An Thi	Van Du	
3	Hai Duong	Binh Giang	Thai Duong, Thai Hoa, Thai Hoc, Co Bi	Km 25 - Km 82
		Gia Loc	Yet Kieu, Phuong Hung, Gia Khanh, Gia Xuyen, Gia Loc	
		Tu Ky	Ngoc Ky, Dong Ky, Tu Xuyen	
		Thanh Ha	Thanh Hong, Thanh Cuong, Vinh Lap	
4	Hai Phong	An Lao	Quang Trung, Quoc Tuan, My Duc, An Thai	Km 82 - Km 105+500
		Kien Thuy	Huu Bang, Hoa Nghia	
		Hai An	Trang Cat	

1.3. Introduction to consultant unit observation

- The consultant unit Environmental observation: Institute of Environment Technology.

- Address: A30 Building, Institute of Environment Technology, 18 Hoang Quoc Viet street – Cau Giay district – Ha Noi capital.

- Tel: 043 7569 136; 043 7911 654; 043 7916 512

- Fax: 043 7911 203

CHAPTER 2.

THE STATISTICAL SURVEY METHOD

Survey the health status of workers in the packages of project to collect data on the health centre status of construction units; the living and health of workers, staffs and preventive measures, prevent accidents which the construction units use. The purpose of survey is to supply data on the number of people who are affected by the process on building.

2.1 The method of surveyed household determination

The project “highway Ha Noi-Hai Phong” goes through 4 provinces Ha Noi, Hung Yen, Hai Duong, Hai Phong. The statistical results show that there are 18115 household are being affected by route, including:

- The number of households which are acquired agricultural land: 16877
- The number of households which are acquired residential land 1228

Among the household acquired land, 1350 households resettle in 37 resettlement zone on the route.

Following the statistical survey, use the formula of Yamane:

$$n = \frac{N}{1 + N(e)^2}$$

In which: n: The number of sample need identified for research

N: Total of samples

e: The accuracy level

Base on that formula, in order to reach about 90% reliability, we need survey 500 households in the route.

2.2. The survey methods

- The document analysis method: Collection and analysis social information based on the analysis of former documents.
- The observation method: Collection and analysis social information on research subject through direct perception and record true the factors related to the object and purpose of research.
- Interview method: Collection and analysis social information through dialogue in a subject, a certain order among researchers with research objects.
- Anklet method: Collection social information based on the questionnaire.

2.3. Collect documents and analysis information of survey and write report.

- The information needed processing

+ *Primary information-level 1*: The information is collected from different source.

+ *Primary information-level 2*: The information is processed purely technical to the social statistical methods.

+ *Advance information-level 3*: The information is analyzed, summarized by expert and researchers to show scientific conclusion, after that make recommendations and forecasts.

- Evaluate the collected information.
- Test the research hypothesis
- Write a summary report

CHAPTER 3.

THE ECONOMIC – SOCIAL CONDITION OF PROJECT

3.1. The economic-social condition of Ha Noi province

3.1.1. The economic condition

❖ The agricultural production

The results of economic development of communes area project have high growth rate, the economic structure continues to industrialization and modernization of agriculture and rural.

- Da Ton commune: The ratios of the agriculture, Forestry and Fishing production, the commercial service and the basis construction and small industry and handicrafts are 30.25%; 35%; 34.75%, respectively.

- Dong Du commune: Mobilize all of resources to investment of economic development, hasten the progress of economic structuring coupled with transforming of plant structure from rice to fruit trees, herbs and bonsai with high effective economy. The revenue in the first six months of year is estimated at 26 billion vnd, reaching 52% of the plan and the per capita income is estimated to be 1050000 vnd a month.

- Kieu Ky commune: the lasting of the unfavorable and cold weather affected the development of plant and local livestock, poultry. The commune focused to overcome technical problems such as structure seed, improve soil, supply water, etc. and prevent disease. The result is estimated to be 60 quintal/ha with total output of 1512 ton. In the first six months of year, revenue from crop and livestock is estimated to be 8.92 billion, an increase of 6.6 per cent compared to the same period last year.

❖ The industrial production

Because of the situation of unfavorable market price, the industry, the basis construction and small industry and handicrafts have some problems such as: lack to investment, the goods circulation is low and etc. However, with the effort of the Party committees and production unit, the production was remained unchange and developed. The productive value of Kieu Ky commune reached 22.5 billion, an increase of 14.8 per cent compared to the same period last year.

Continue to implement the objectives of developing trade village, attract the business and investors, pay attention to developing of tradition village.

❖ The commercial service and career development

With the impact of market prices, trade and services meet with difficulties affecting income but it always follows by increase trend. In Kieu Ky commune, the

value of commercial service is approximate 5.1 billion vnd and an increase of 25.6 per cent compared with the same period last year.

At the same time in Da Ton commune, with the fast urbanization rate, the service and commercialization are focused on. The current situation shows that there are 300 households selling sundries, food, sewing-machine and etc. Some households having transportation work in tourism or transport service and etc.

3.1.2. The health condition

The health centres of communes area project belonging to Ha Noi make plant of year, organize health care for people. Especially, the policy families, the disabled people are usually cared. The health care for public, expanded vaccination and checking the food hygiene are regularly organized in the first six months of year, leading there is disappearance of disease case.

The women from 15 to 45 years old are vaccinated tetanus, reaching 100 per cent. The ratio of malnourished children reaches 10.53 per cent while the children from 0 to 6 months old are weighted and have health insurance free, are vaccinated every months and take vitamin A.

3.1.3. Basis construction, land management, construction order

In the area, the State management of land is implemented on principle of law amendment in 2003. The supervising in residential area is usually monitored. Especially, with the land clearing, Kieu Ky commune identified 100 households in the land clearing. The resettlements zone was built, having enough terms for people with house. The commune paid money three times for 78 households with 23 billion. The manage of land clearing continues to post plan and solve the problem of left household.

3.1.4. The environmental management

The communes in area project belonging to Hanoi were usually combining with the Nature resources and Environment Department of Gia Lam district inspect the implement of environmental hygiene working of organizations and individual person.

Regularly maintaining the collection of rubbish in residential zone, commune built the route by people managing while actively mobilizing people implement separation waste at source.

3.2. The economic-social condition of Hung Yen province

3.2.1. The economic condition

❖ The agricultural production

Van Giang district:

In winter 2010 – 2011, the farmer plant many trees reaching 90.1 per cent plan, in which the major kinds are squash, calabash, luffa, cucumber and vegetation. The fifth-month crop in 2011 has the plan area total estimated to be 99.3 percent of plan. The irrigational work in the first six months of year reaches 103.2 percent, with the investment cost is 21.9 million Vnd. The average revenue of agriculture reached 26925 million Vnd, increasing 1.13 per cent than that the same period last year. The leadership of Van Giang district guided communes vaccinate livestock, poultry, leading the disappearance of disease case.

Yen My district:

- Regarding cultivation: in first six months of year, the unfavorable weather affecting the growth of plant leads that the economic-social development meets with difficulties. However, the affected communes by project had 100 per cent planted area, and all of rice area, farm produce normally grows up. The district guide commune combining with irrigational enterprise supply water sensibly, and initiatively inspect, identify and prevent insect opportunely.

- Regarding breeding: in the first six months of year, the situation of breeding local livestock, poultry remains stable trend, especially, the vaccination is focused on, leading the disappearance of disease case. The average revenue of breeding reached 7.1 billion vnd.

❖ **The industrial production**

Van Giang district

- The traditional trade is maintained and developed such as mechanics, sewing, business of building materials, wood, welding, food processing and etc.

- The small industry and handicrafts development created jobs for hundred local labour such as KumHo company, the co-operative production of mushrooms of Long Hung commune.

- In the current situation, the district continues to receive project, creating jobs for local people and gradually develop toward industrialization-modernization

- The average revenue of the small industry and handicrafts is estimated to be 35 billion, reaching 50.8 per cent of plan.

Yen My district

- From the first six months of year, in the affected communes by highway project, the small industry and handicrafts develop regularly such as business of building materials, wood, mechanics meet the demand of local people, and the jobless worked at local companies or others provinces.

- In the first six months of year, the average revenue of the small industry and handicrafts is estimated to be 31.245 billion vnd while this figure in the building investment is 16 billion vnd.

❖ **The commerical service and career development**

Van Giang district

- The local trade and service develop strongly. However, its scale is small, has not met the demand of local people and economic market. The business is increasing more diverser, in particularly in manufacturing and provide building materials. To promote labour services of transport, food processing, fertilizers, pesticides and etc. In the first six months of year, the commercial and service value is estimated to be 44.844 million vnd.

3.2.2. The health condition

Van Giang district

- The health care is often interested propagandize to people prevention of disease, environmental sanitation. The poor and children under 6 years old are examined and treated medically and have health insurance free. Organizing vaccination for children and women in childbearing age is implemented within the time limit.

Yen My district

- The quality and quantity of health service staff has been gradually improved, leading the local health care continues to be strengthened and interested in.

- Propagandizing disease prevention helps people to care themselves. Therefore, there is disappearance of epidemic. In the first six months of year, thousands of people are examined and treated medically. 12 national health programs and the vaccination were implemented, reaching 100 percent.

3.2.3. Basis construction, land management

The land management has been strengthened such as strict punishment of violations. The certificate of land use right to eligible households was focused on. Propagandizing and educating on traffic safety for people and schools.

Dredging ditches, irrigation fields, cleaning and service of lawn irrigation are done well.

Now, many projects are remodeled, including schools and other welfare projects. The concrete roads in the village were invested to build by local people. The

situation of building follows by rise trend. The management and licensing are of interest.

3.2.4. The environmental management

- Protecting water resources and the environment is implemented such as propaganda on environmental sanitation, utilizing the waste collecting sites, maintaining funding support for hygiene in villages.

- The land management is more focused on, there are waste of living landfill.

3.3. The economic-social condition of Hai Duong province

3.3.1. The economic-social condition of Tu Ky district

3.3.1.1. The economic condition

❖ The agricultural production

The value of agriculture in Hai Duong province (Tu Ky district) reached 378 billion Vnd, reaching 58.64 percent of plan and increasing 0.34 percent than that the same period last year. In which the plan area is 10699 ha reaches 55.44 percent of plan, decreasing 120 ha than that in the same period in 2010. The production value increase.

❖ The industrial production

In the first six months of year, the industrial value is estimated at 258 billion vnd reaching 48.72 percent of the plan, which increases 28.09 percent than that in the same period last year. The production value increased and focused on non-government sector. The construction activities are basis change, many building have ensured progress, especially programs belonging solidify the class program and rural transport works. Routes have been maintained regularly. Basically complete the construction of technical infrastructure of the resettlement area for highway Hanoi-Haiphong.

❖ The commercial service

The value of some services (constant prices) is estimated at 320 billion vnd reaches 56.14 percent, increasing 13.48 percent than that in the same period in 2010. Some services develop quickly such as: transport, telecommunications services and etc.

3.3.1.2. The cultural-social condition

❖ The health condition

Regularly maintain the examination and treatment medically for people, especially for people having social health insurances. The prevention and treatment of disease, the food hygiene are implemented good. There is disappearance of epidemic disease and food poisoning case. The health centres at grassroots level are maintained, now 100 percent of hamlet have health staff and 21 of 27 health centres have doctors.

The examination and treatment medically are enhanced both of quantity and quality. Some communes such as Tai Son, Ngoc Son, Tien Son và Dai Dong hasen the progress building commune reaching ten national standards of health, striving to end in 2011 reach 100 percent of communes and town reach 10 national standards on health.

❖ **The social policy**

In the first six months of year, 5023 people regularly were pensioned with 28 billion vnd and 112 people were pensioned only once with 600 billion vnd. The social policies for beneficiary of social welfare, especially, the disabled people are successfully implemented.

Creating jobs for 1500 laborers, the commune focused on vocational training in 2011.

3.3.1.3. Basis construction, land management, construction order

The planning for land use in 2011 and the period 2011-2015 continued to be perfected. The management of state land changes, the violations are significant limitations, land use savings purposes and improve efficiency. In the first six months of year, the commune certificates of land use rights for 364 families and individuals.

The clearance of the project highway Hanoi-Haiphong has been basically completed and handed over to construction unit.

3.3.1.4. The environmental management

Strengthen inspection in the field of mining and environmental protection. Implement National Week of clean water, sanitation. Organize activities to respond to World Environmental Day and International Day of Bio-diversity in the district

3.3.2. The economic-social condition of Thanh Ha district

3.3.2.1. The economic condition

❖ **The agricultural production**

- Regarding cultivation: The project in Thanh Ha district has land area of 582 ha with productivity estimated to be 45 - 65 quintal/ha and total production of 35000 ton. The orchard has total area about 600 ha and productivity is estimated at 4500 ton higher 15 percent than that in 2010.

- Regarding breeding: The livestock, poultry are cared and protected carefully. The fisheries sector has area of 50 - 60 ha with high productivity.

❖ **The industrial production**

The communes creates jobs for the laborers to work in industrial zones, increasing their income.

The situation of small industry and handicrafts in Thanh Chuong commune: there are 390 households working: wood, welding, mechanics, transport service and etc.

❖ **The commercial service and career development**

Cooperative activities effectively: guide people in planning hybrid rice area, supplying materials and regulating water for agricultural production, notifying timely when there are pest infestation of rice and fruit trees, guiding people to care and preventing effectively.

The cooperatives maintain always stable electricity supply, grid security. They plan to serve electricity to the rainy season.

The value of services increased significantly than that in the same period last year such as some career: construction, food processing, selling sundries, and sewing-machine.

3.3.2.2. The cultural-social condition

❖ **The health condition**

Regularly maintaining the examination and treatment medically for people (9.841 people, including people having the social health insurances), ensuring hygiene, there is disappearance of epidemic disease case in 2011. 100 percent of children under 6 months old and the pregnant mothers are fully vaccinated and the percentage of malnourished children under 5 years old decreased.

Many national target programs have been implemented such as public health care, prevention of HIV/AIDS, influenza A (H₁N₁), acute diarrhea and sanitation, the food hygiene and etc.

❖ **The social policy**

The social policy: Communes checked poverty in 2011 and approved social protection for poor, the policy families, the disabled people (13 people), the elderly (80 people).

The social policies are well implemented. Commune considers and recommends about 400 to 500 people who are pensioned, including 100 to 200 people over 80 years old, disable people, and the ones with mental illness about 100 to 150 people. The children under 6 years old are issued the social health insurances.

3.3.2.3. Basis construction, land management

Regular inspect and manage the using land of people, detect and prevent violations using land for wrong purpose.

Strengthen the land management measures to prevent violations. The project management plans the construction of new rural, using land to 2020. The highway Hanoi-Haiphong is cleared the ground period 2.

3.3.3. The economic-social condition of Binh Giang district

3.3.3.1. The economic condition

❖ The agricultural production

- Regarding cultivation: The project in Binh Giang district has the average revenue of the small industry and handicrafts is estimated to be 369.5 billion, reaching 59.6 per cent of year plan. The agricultural production meets with difficulties with little rainfall, water level always is low, the lasting of the unfavorable and cold weather affected the development of plant.

- Regarding breeding: regularly monitor epidemic diseases of livestock, poultry. Propaganda for the people handle the risk of disease outbreak and take measures to prevent and respond proactively when an epidemic occurs.

❖ The industrial production

The industrial production developed significantly to serve the demand of construction and people's lives. Some careers mechanics, sewing, business of building materials, wood, welding, and etc develop significantly to meet people's demand.

The value of small industry and handicrafts is estimated to be 417.3 billion vnd, reaching 45 – 60 percent of year plan.

❖ The commercial service and career development

In the first six months of year, the value of commercial services is estimated at 83.64 billion vnd, reaching 47.6 – 63.8 percent of the plan. Business and service develops, the abundance of goods make their prices increase, which leads to decrease the buying power of people.

Although the situation of unfavorable market price, bad weather and epidemic diseases but the activities of services always meet the demand of people such as fertilizers, pesticides, consumer good and etc.

In commune, the building develops relatively, in which many houses were built strongly, having high value. However, the source of capital is accumulated formerly or borrows with interest because of the increase of building materials.

3.3.3.2. The cultural-social condition

❖ The health condition

The health centre implemented well the examination and treatment medically for people, vaccination and community health programs. 100 percent of children under

6 months old and the pregnant mothers are fully vaccinated and take vitamin A. The percentage of malnourished children under 5 years old is under 18 percent.

❖ **The social policy**

The social policies are implemented successfully. The social health insurances are issued for poor, the policy families, the disabled people, the elderly and etc.

3.3.3.3. Basis construction, land management

Coordinating with Environment Department of Binh Giang district and Hai Duong Natural resources and environment is managed easily.

In the first six months of year, the people's committee approved about 50-80 cases of request for transfer of land use right, complete the application for issuance of 40-60 certificates of land use right. The district suspended 5-10 cases transgress territory of government. Regularly inspect the using land of people, according to law.

3.3.3.4. The environmental management

The sanitation is a serious problem in the area such as sewage and garbage in residential areas having increase trend, while there is not treatment measures. In addition, the sense of people is still restricted in environmental protection and public health care.

3.3.4. The economic-social condition of Gia Loc district

3.3.4.1. The economic condition

❖ **The agricultural production**

Regularly irrigated crops for their growth and development of plant. The area of agricultural land used for cultivation of about 2101.2 ha with their value estimated at 140 billion vnd, reaching 50.9 percent compared to the plan, increasing 21 percent than that in the same period last year

In the first six months of year 2011, the livestock sector of district was infected by epidemic diseases so the number of local livestock and poultry decrease. Thus, the total value still reaches high. The vaccination to livestock and poultry is not implemented regularly.

The fisheries sector has area of 184.9 ha with the value of 61.2 billion vnd, including the production of meat and fish of all kinds is 801.1 ton.

❖ **The industrial production**

In the first six months of year, the production value is estimated to be 68.39 billion, reaching 66.82 percent of plan and the value of small industry and handicrafts is estimated to be growth rates, including some industries develop such as mechanical repair, construction, food processing.

❖ **The commercial service and career development**

In general, the first six months of year, economic and commercial services increased significantly and diversified, high proportion of the economic structure of district. The service activities in the district are encouraged to develop diverse and rich, satisfying all requirements for production on the lives of people such as transportation and consumption of agricultural products, export-import foreign laborers to work for companies and foreign enterprises as seasonal workers. The value of services is estimated at 69.09 billion, reaching 54.48 percent of the plan.

3.3.4.2. The cultural-social condition

❖ The health condition

The health care is well implemented, there is not epidemic diseases in the commune, 100 percent of children under 1 year old and the pregnant mothers are fully vaccinated and take vitamin A. The percentage of malnourished children decreased significantly. The examination and treatment medically for people having social health insurance are regular organized, about 14739 people. The doctors, physicians and nurses completed their jobs and promptly report situations that may occur in the area.

❖ The social policy

Successful implementation of social policies for beneficiary of social welfare, especially, the disabled people 1483 social health insurance cards were issued for the poor and beneficiary of social welfare and children under 6 years old.

3.3.4.3. Basis construction, land management

In the first six months of year, the use of land is stable without large fluctuation, some regions are transferred to land, roads and etc. However, they have not been approved by competent authority purpose land use areas. The management of resources has been many attempts, but the land violations occurred, the treatment is not strict.

3.3.4.4. The environmental management

Regularly maintain the garbage collection in the village, but the waste burning is uncontrolled, landfill pit planning previously is not reasonable.

Propagate and mobilize people to organize the National Week of clean water and sanitation from 15-31/5/2011 in the area and respond to World Environmental Day on 5/6/2011.

3.4. The economic-social condition of Hai Phong city

3.4.1. The economic condition

❖ The agricultural production

The economic value in Hai Phong city (Trang Cat precinct) reached 37.5 billion Vnd, increasing 13 percent than that in the same period last year. In which the fishing

production is estimated to be 19.5 billion vnd, rising 12 percent than that in the same period last year. The breeding and farm production reached 7.5 billion vnd. The livestock, poultry are vaccinated regularly.

In An Thai commune, the revenue from crop with area of 294 ha reaches 98.7 percent compared to plan, its productivity estimated to be 70 quintal/ha. Regarding the industrial crops: Nicotiana with area of 9 ha has production to be 14 ton.

Huu Bang commune: Total crop area in spring 2011 is 338.7 ha, decreasing 12.6 ha than that in the same period last year. That causes by recovering for project route 403 in second period. In depression with area of 10 ha, rice was died because of cold weather and farmers can not sow rice seeds. Area of early cropped field is 111.8 ha, occupying 32 percent area.

In Hai Thanh precinct, there are 31168 livestock, poultry, including 1100 pigs reaches 73.3 percent compared with year plan, increasing 52 percent than that in the same period last year. Number of buffaloes, cows and goats are 68 reaches 85 percent compared with year plan, rising 13 percent than that in the same period last year.

The farmland area in My Duc commune is 487 ha. Productivity of crop in spring 2011 is estimated to be 61 quintal/ha. Area of farm produce is 15.2 ha, vegetables and peanut are mainly. Total revenue of farm produce reached 250 million Vnd and the average revenue is 600 thousand vnd/360 m².

❖ **The industrial production**

My Duc commune:

105 households which work the small industry and handicrafts belong to My Duc commune (Hai Phong city) with the revenue was estimated to be 2 billion vnd while 994 households trade with 10 billion vnd of revenue in the first six months of year.

There are 1200 labours having the average revenue is 700 thousand vnd/people a month and total revenue is estimated to be 5 billion vnd.

Dai Dong commune:

Cooperatives maintain electricity supply production and living of the people, ensure safety gird while moving the poles for roads is also done well.

3.4.2. The cultural-social condition

❖ **The health condition**

In the first six months of year, there is not epidemic disease. Propagandizing disease prevention and the vaccination were implemented. 100 percent of children under 6 months old were vaccinated and those from 6 to 36 months years old took vitamin A.

The examination of food hygiene and public health prevention are maintained. The examination and treatment medically are enhanced both of quantity and quality, in particularly with children under 6 years old and the poor, policy families. Propagandizing reproductive health care and family planning is focused on so that the epidemic disease does not occur.

❖ **The social policy**

The policy beneficiaries are allowed from State budget fully and promptly, while issuing the social health insurance, reducing the poverty and repaying families with a contribution to revolution for their favour are often implemented.

3.4.3. Basis construction, land management

Determinating landmark services of upgrading, local road according to plan, mobilizing people to support the expansion of built roads in localities. Inspecting the law observance in the planning and management of agricultural land use by decision No. 28 of Haiphong People's Committee.

Basically, the commune has completed compensation, clearance and resettlement for highway Hanoi-Haiphong before handing over the two stages for construction company.

3.4.4. The environmental management

The implement of environmental hygiene is focused on, leading to urban area changes gradually. Hamlets have dustbin and landfill, garbage truck while rate of households contributing funds collection is very low.

However, leaving litter is uncontrolled, in particularly there is the environmental pollution in irrigation canal.

CHAPTER 4.

IMPACT OF THE PROJECT TO ECONOMIC-SOCIAL AREA

4.1. The economic-social situation of affected households

The highway Hanoi-Haiphong runs cross 4 provinces and affect directly to 57 communes, in which Hanoi, Hung Yen, Hai Duong, Hai Phong have number of affected communes estimated to be 3, 14, 30, 10, respectively. The number of households acquired agricultural land and residential land are 16877 and 1228. Based on the statistical survey method, there are about 600 households which need to be surveyed.

4.1.1. The economic condition

4.1.1.1. The population

Table.4.1. The situation of population area project

Province/City	Total of household	Total of People	Under 18 years old (%)	From 18 - 60 years old (%)	Over 60 years old (%)	People working in factories, enterprise (%)
Ha Noi	40	198	30.8	60.1	9.1	10.6
Hung Yen	129	644	21.3	70.2	8.5	3.3
Hai Duong	234	1.010	21.2	69.5	9.3	5.3
Hai Phong	176	763	19.7	70.5	9.8	6.3

Table 4.1 shows that the ratio of people in working age (from 18 to 60 years old) occupies 60 – 70 percent while these figures of people working in companies and enterprises in Ha Noi capital, Hung Yen province, Hai Duong province and Hai Phong city are 10.6%; 3.3%; 5.3% and 6.3%, respectively.

4.1.1.2. The main revenue source

Table.4.2. The main revenue source of affected household

The main revenue source	Total of household	Rate (%)	Ha Noi	Hung Yen	Hai Duong	Hai Phong
Agriculture	416	72.1	28	86	169	133
Trading	37	6.4	2	7	11	17
The others	124	21.5	10	36	54	26
Total	577	100,0	40	129	234	176

Based on the results, the main revenue source of surveyed households is farming, occupying 72.1% while these figures with trade and others career

(transportation and etc) are 6.4% and 21.5%. The recovering agricultural land for project has affected to living of local people.

4.1.1.3. The poor household

The surveyed results of 4 provinces show that the ratio of poor house in Ha Noi, Hung Yen, Hai Duong and Hai Phong are 0%, 0%, 3.4% and 6.8%, respectively.

4.1.1.4. Revenue of household/month

Table.4.3. Revenue of household/month of affected household

Revenue of household/month	Total of household	Rate (%)	Ha Noi	Hung Yen	Hai Duong	Hai Phong
< 500.000	26	4.5	0	0	8	18
> 500.000 - 1.000.000	57	9.9	4	6	18	29
> 1.000.000 - 2.000.000	185	32.0	7	38	71	69
> 2.000.000 - 4.000.000	184	31.8	14	57	68	45
> 4.000.000	126	21.8	15	28	69	14
Total	578	100	40	129	234	175

Revenue of household in a month of 4 provinces is mostly from 1 to 2 million vnd (32 percent) and 2 to 4 million vnd (31.8 percent) while these figures with that over 4 million vnd, from 0.5 to 1 million vnd and under 0.5 million vnd which are 21.8%, 9.9% and 4.5%, respectively.

4.1.1.5. Total of expense/month

Table.4.4. Total of expense/month of affected household

Total of expense/month	Total of household	Rate (%)	Ha Noi	Hung Yen	Hai Duong	Hai Phong
< 500.000	7	1.4	0	1	6	0
500.000 - 1.000.000	39	7.5	0	4	22	13
> 1.000.000 - 2.000.000	116	22.4	5	31	46	34
> 2.000.000 - 4.000.000	230	44.4	14	47	104	65
> 4.000.000	126	24.3	20	29	43	34
Total	518	100.0	39	112	221	146

In general, total of expense a month of surveyed households approximated with their revenue, which their figures lie between 2 to 4 million vnd; over 4 million vnd; 1

to 2 million vnd; 0.5 to 1 million vnd and under 0.5 million vnd with 44.4%; 24.3%; 22.4 %; 7.5% and 1.4% of surveyed households, respectively.

4.1.1.6. The current of land acquisition

Table.4.5. The current of land acquisition area project

Ordinal	The current of land acquisition	Total of household	Rate (%)	Ha Noi	Hung Yen	Hai Duong	Hai Phong
1	Rate of land loss	313	100	10	73	148	82
	< 30%	21	6.7	1	5	12	3
	≥ 30%	292	93.3	9	68	136	79
2	Rate of farmland loss	373	100	25	96	154	98
	< 30%	170	45.6	19	53	60	38
	≥ 30%	203	54.4	6	43	94	60
3	Rate of garden loss	14	100	2	2	10	0
	< 30%	1	7.1	0	0	1	0
	≥ 30%	13	92.9	2	2	9	0

The table shows that the ratio of acquired land of households which has areas belonging to project is mostly over 30 percent while the areas left are over 50 m². Some in Hung Yen province and Hai Duong province have narrow agricultural land and residential land left with the former of 24m² and the later of 15m² which is not enough to build or farm.

4.1.1.7. The situation of the agricultural production

- Rice and farm produce: Most opinion surveys show that status abandoned farmland where appears weeds and insect, having severely affected production of rice and farm produce. The rice output has only a few kg per pole, causing a significant influence on the lives of farmers. People's committee of communes have implemented various measures to kill insect so the rice and farm produce output in 2011 are higher, achieving an average 2 kg per pole.

- Perennial: The survey results show kind of perennial mainly guava, kumquat, litchi, longan with thousand of trees which is the revenue of farming households.

4.1.2. The effect of resettlement compensation and support of career change

4.1.2.1. The compensation and clearance policy

84.4% of surveyed households said that the compensation policies are satisfactory, while these figures with satisfactory opinion and without opinion are 15.2% and 0.4%, respectively. That causes by disparity in compensation between

affected households and the support is too low. In addition, the land acquisition was conducted in 2008 but up to now people still have not received all this money.

4.1.2.2. Resettlement

a, Hanoi province

In Ha Noi, there are 96 resettlement households in Kieu Ky commune where handed over plane to households. However, the surveyed households said that Kieu Ky resettlement zone was built near Hung Ha paper company, which is suitable, surrounding resettlement areas contaminated by sewage and noise from the operation of factory production. In Dong Du commune, 39 households were acquired agricultural land and without one was acquired residential land so the resettlement zone was built. However, the people’s committee of Dong Du commune is considering the construction of resettlement zone for households which was acquired 30% agricultural land.

The survey of living condition in the resettlement area in Hanoi has not be done, leading households have not handed over plane.

b, Hung Yen province

Hung Yen province has 239 resettlement households, including 40 ones in Van Giang district; 77 ones in Yen My district and 122 ones in An Thi district. In current, Hung Yen province handed over plane, in which some built while the others have not done, in particularly, Yen Phu resettlement zone has not any household.

66 of 129 households occupying 28 percent are resettlement zones, in which 44 ones built (3 tiled roof houses, 14 flat roof houses and 27 multistory houses) and 22 ones have not done.

The survey results of infrastructure in resettlement zones show:

- The situation of water supply: tap water which is enough to people’s living is the major source in this area. However, 6 of 44 households said that the water quality is clean while the others saw off-taste, turbid of aluminous water (Table 4.6).

Table.4.6. The water supply quality at resettlement zone in Hung Yen province

The water quality	Total of household	Cuu Cao	Hoan Long	Minh Chau	Van Du	Dao Duong	Tan Phuc	Bai Say
Clean	6	4				2		
Aluminous	17			1	3		9	4
Off-taste	17		5	2	1		1	8
Turbid	4	1			3			

- The situation of electricity supply:

Table.4.7. The situation of electricity supply at resettlements zone in Hung Yen province

The situation of electricity supply	Total of household	Cuu Cao	Hoan Long	Minh Chau	Van Du	Dao Duong	Tan Phuc	Bai Say
Stable	40	5	2	3	6	2	10	12
Unstable	4		3		1			

Table 4.7 shows that the situation of electricity supply at resettlements zone in Hung Yen province is good, in which 40 of 44 surveyed households said that electricity source is stable while the others witnessed the opposite one.

- The situation of education:

Table.4.8. The situation of education at resettlements zone in Hung Yen province

The situation of education	Total of household	Cuu Cao	Hoan Long	Minh Chau	Van Du	Dao Duong	Tan Phuc	Bai Say
Enough school	37	5	5		3	2	10	12
Lack of school	0							
Far from school	2				2			
Near school	3			3				

Mostly the resettlement zones have been built near schools which their quantity meet people's demand (Table 4.8).

- The situation of health:

Table.4.9. The situation of health at resettlements zone in Hung Yen province

The situation of health	Total of household	Cuu Cao	Hoan Long	Minh Chau	Van Du	Dao Duong	Tan Phuc	Bai Say
Comfortable	15	5	3		5	1		1
Uncomfortable	25		2	2	1	1	10	9
Awkward	4			1	1			2

15 of 32 surveyed households said that the situation of health is comfortable while the ones left said conversely, mainly in the resettlement zones Tan Phuc (An Thi district).

The waterlogged situation in rainy season: Mostly resettlement zones (34 of 40 surveyed households) have drainage systems while that in Bai Say commune was sometimes waterlogged.

c, Hai Duong province

Hai Duong province has 482 households which resettles (Binh Giang district has 91 cases while these figures in Gia Loc, Tu Ky and Thanh Ha district are 21, 205 and 165, respectively). That has 11 resettlement zones (Binh Giang district has 2 zones while these figures in Gia Loc, Tu Ky and Thanh Ha district are 1, 3 and 5, respectively), in which 10 ones handed over plane and Tai Son resettlement zone has not defined construction location, leading the clearance get difficulties.

125 of 230 resettlement households have been affected by project, including 50 ones have not built; 14 ones do not build and 61 built households which mostly is 8 tiled roof houses, 7 flat roof houses and 46 multistory houses. However, building in resettlement zones has many difficulties, in particularly Phuong Hung one (Gia Loc district) has low compensation so many households must built narrow area or borrow at interest.

The infrastructure in resettlement zones mostly has being perfected so the privation of electricity, water and water-logging has been appeared.

- The situation of water supply: Well-water is mainly supply source while some households in Dong Ky resettlement zone have used rain-water, which its unstable quantity is not enough for family's living (28 of 43 households said that), particularly in Co Bi and Tu Xuyen resettlement zones. 25 of 56 households said that water is turbid while 20 ones saw clean water, followed by alumious water and off-taste water with the former of 7 and the latter of 4 households (Table 4.10).

Table.4.10. The situation of water supply at resettlement zones in Hai Duong province

Ordinal	The situation of water supply	Total of household	Co Bi	Nhan Quyen	Phuong Hung	Dong Ky	Tu Xuyen	Vinh Lap	Nhan Bau	Vinh Linh
1	The water quality									
	Clean	20	10		2		2	4		2
	Aluminous	7			1			3		3
	Off-taste	4			1		1	1	1	
	Turbid	25	11	4		1	8		1	
2	The water quantity									
	<i>Enough</i>	15	1	2		1	4	5		2
	<i>Shortage</i>	28	9	2	2	1	8	3		3

- The situation of electricity supply:

Table.4.11. The situation of electricity supply at resettlements in Hai Duong province

The situation of electricity supply	Total of household	Co Bi	Nhan Quyen	Phuong Hung	Dong Ky	Tu Xuyen	Vinh Lap	Nhan Bau	Vinh Ninh
Stable	18					10	3		5
Unstable	7	3		1			1	2	
No electricity	35	19	4	3	3	2	4		

18 of 60 households said that the resettlement zones in Tu Xuyen, Vinh Lap, Vinh Ninh have stable electricity sources while mostly others witness unstable ones. However, the privation of transformer station makes people get electricity from the surrounding area and to pay higher electricity prices compared to reality.

- The situation of education:

Table.4.12. The situation of education at resettlements in Hai Duong province

The situation of education	Total of household	Co Bi	Nhan Quyen	Phuong Hung	Dong Ky	Tu Xuyen	Vinh Lap	Nhan Bau	Vinh Linh
Enough school	59	22	4	4	3	11	8	2	5
Lack of school									
Far from school	1					1			
Near school									

Based on table 4.12, we can see the construction location of resettlement zones is convenient for the movement of removed households which said that the number of schools is near and enough.

- The situation of health:

Table.4.13. The situation of health at resettlements in Hai Duong province

The situation of health	Total of household	Co Bi	Nhan Quyen	Phuong Hung	Dong Ky	Tu Xuyen	Vinh Lap	Nhan Bau	Vinh Linh
Comfortable	50	22	4	4	3	6	6		5
Uncomfortable	10					6	2	2	
Awkward	0	0	0	0	0	0	0	0	0

- Over 80 percent (50 per 60) of resettlement households said that the situation of health is comfortable while the opposite opinion is true with 10 households in the resettlement zone in Tu Xuyen commune, Vinh Lap and Nhan Bau.

- The waterlogged situation: 44 of 59 surveyed households (75 percent of resettlement surveyed households) said that there is not water-logging while 15 ones said that drainage is not good, sometimes there is the waterlogged phenomenon in the rainy season.

Table.4.14. The situation of water-logging at resettlements in Hai Duong province

The situation of water-logging	Total of household	Co Bi	Nhan Quyen	Phuong Hung	Dong Ky	Tu Xuyen	Vinh Lap	Nhan Bau	Vinh Linh
Frequent									
Sometime	15	4	2	2	3		1		3
No water-logging	44	18	2	2		12	6	2	2

d, Hai Phong city

- The situation of water supply: 44 of 47 surveyed households have used tap-water while the others have used well-water. Every household have enough using water except 3 ones in Xuan Uc 2.

- Regarding quality of water: 25 of 36 households said that the running water is clean, 8 others ones saw off-taste in water and 3 households in Hoa Nghia commune saw turbid water (Table 4.15).

Table.4.15. The quality of water supply at resettlements in Hai Phong city

The water quality	Total of household	Minh Khai	Tan Nam - Buu Dien	Xuan Uc 1	Xuan Uc 2	Tam Kiet	Van Cao	Nam Hai	Hoa Nghia
Clean	25	3				6	2	9	5
Aluminous	0								
Off-taste	8		1		4		2	1	
Turbid	3								3

- The situation of electricity supply:

Table.4.16. The situation of electricity supply at resettlements in Hai Phong city

The situation of electricity supply	Total of household	Minh Khai	Tan Nam - Buu Dien	Xuan Uc 1	Xuan Uc 2	Tam Kiet	Van Cao	Nam Hai	Hoa Nghia
Stable	26	3			4	1	7	6	5
Unstable	23	3	1	2		5		4	8
No electricity	0								

The survey results show that 100 percent of households in resettlement zones have had using electricity. 26 of 49 surveyed households (53 percent) said that the electricity supply is stable while the opposite is true with the others (Table 4.16).

- The situation of education:

Table.4.17. The situation of education at resettlements in Hai Phong city

The situation of education	Total of household	Minh Khai	Tan Nam - Buu Dien	Xuan Uc 1	Xuan Uc 2	Tam Kiet	Van Cao	Nam Hai	Hoa Nghia
Enough school	1								1
Lack of school	4								4
Far from school	19					1	6	6	6
Near school	35	7	8	3	4	6	1	4	2

The survey results show that there are 35 households (occupying 59.3%) near school, 19 ones are far from and 4 ones said that school is not enough for their children (Table 4.17)

- The situation of health:

Table.4.18. The situation of health at resettlement zones in Hai Phong city

The situation of health	Total of household	Minh Khai	Tan Nam - Buu Dien	Xuan Uc 1	Xuan Uc 2	Tam Kiet	Van Cao	Nam Hai	Hoa Nghia
Comfortable	39	6	8	3	4	6	1	6	5
Uncomfortable	19					1	6	4	8
Awkward	0								

39 of 58 households said that the situation of health at resettlement zones is comfortable while 19 others feel uncomfortable and awkward.

- The situation of water-logging:

Table.4.19. The situation of water-logging at resettlements in Hai Phong city

The situation of water-logging	Total of household	Minh Khai	Tan Nam - Buu Dien	Xuan Uc 1	Xuan Uc 2	Tam Kiet	Van Cao	Nam Hai	Hoa Nghia
Frequent	14		7	2	3				2
Sometime	5	1					2	2	
No water-logging	34	5			1	7	5	8	8

In Tan Nam-Buu Dien, Xuan Uc 1 commune, Xuan Uc 2 commune and Nghia Hoa commune, 14 of 53 surveyed households said that the resettlement zones have been waterlogged while the others left saw good drainage systems, without water-logging.

4.1.2.3. The situation of compensation money for career change

- 73.4 percent of households said that the purpose of using compensation money for career change is house build, which is not enough. And other purposes are trading, manufacturing and etc (table 4.20)

Table.4.20. Purpose of using compensation money of affected household

Purpose of using compensation money	Total of household	Rate (%)	Ha Noi	Hung Yen	Hai Duong	Hai Phong
Buy transport	6	1.1		4		2
Trading	17	3.2	1	9	2	5
Agricultural production	33	6.2		10	15	8

Pay	44	8.3	8	9	18	9
Buy equipment	41	7.7	9	3	7	22
Others purpose	390	73.4	19	94	184	93
Total	531	100	37	129	226	139

- The relocation does not affected current job of 51.2 percent of households while that affected 48.8 percent left, in which 60.4 percent of households said that they have convertibility of career (Table 4.21). The households having not convertibility of career are mainly agricultural land acquired ones or aquiculture, which depends on agriculture and has not auxiliary career so the acquiring affected local people, particularly in family with the people over working age.

- The construction of resettlement zone is near their old houses so the relocation does not affect people's living. However, it has the most effect on trading, manufacturing households. A new house is less narrow than old one so local people can not trade at their houses.

Table.4.21. The effect of relocation to the current job of households in area

Ordinal	Content	Total of household	Rate (%)	Ha Noi	Hung Yen	Hai Duong	Hai Phong
1	The impact of the relocation to the current job	564	100	40	129	227	168
	<i>Yes</i>	275	48.8	25	112	74	64
	<i>No</i>	289	51.2	15	17	153	104
2	The convertibility of career	275	100	25	112	74	64
	<i>Yes</i>	109	39.6	18	60	19	12
	<i>No</i>	166	60.4	7	52	55	52

- 74.9 percent of households having large agricultural and resident land said that time need to stable new life is over 6 months which is minimum for them find new job when they have not enough area for farming and aquaculture (Table 4.22).

Table.4.22. Time that stable new life of affected household by project

Stable life time	Total of household	Rate (%)	Ha Noi	Hung Yen	Hai Duong	Hai Phong
Under 01 month	49	9.7		5	29	15
From 01-03 months	22	4.4		4	16	2

From 03 - 06 months	56	11.1	5	3	33	15
Over 06 months	378	74.9	12	100	144	122
Total	505	100	17	112	222	154

4.1.3. The effect of construction on transportation in area

Table.4.23. The effect of construction on transportation in area

Ordinal	The effect of construction on transportation in area	Total of household	Rate (%)	Ha Noi	Hung Yen	Hai Duong	Hai Phong
1	The effect of divided traffic to the movement of people	577	100	40	129	232	176
	<i>Undefined</i>	216	37.4	40		176	
	<i>Yes</i>	184	31.9		94	28	62
	<i>No</i>	177	30.7		35	28	114
2	Increase of traffic accident	577	100	40	129	232	176
	<i>Undefined</i>	220	38.1	40	1	179	
	<i>Yes</i>	33	5.7		12	4	17
	<i>No</i>	324	56.2		116	49	159
3	Increase of transport density	577	100	40	129	232	176
	<i>Undefined</i>	220	38.1	40	1	179	
	<i>Yes</i>	71	12.3		35	10	26
	<i>No</i>	286	49.6		93	43	150

Up to now, there are 4 of 10 construction packages which have been implemented in Hung Yen province and Hai Phong city while in Ha Noi capital and Hai Duong province, the project management drilled and drive in a stake. Thus, most of surveyed households said that the construction does not determine or effect on transport while 31.9 percent of households said that transport status has been splitted, causing effect on people's movement. 5.7 percent and 12.3 percent of households said that the construction causes the traffic accident and density of vehicle.

4.1.4. The effect of construction on air quality and people's living

4.1.4.1. The air quality

Table 4.24 shows that most of surveyed household feel normal air which does not effect on their health while 8.6 percent of opinions have not feel effect of

construction (in Hai Duong province and Hanoi capital). However, 8.7 percent of opinion said that the air quality is stuffy.

Table.4.24. Perceive the air quality in area

The air quality in area	Total of household	Rate (%)	Hanoi	Hung Yen	Hai Duong	Hai Phong
Stuffy	49	8.7	2	28	6	13
Normal	301	53.7	28	86	134	53
Comfortable	40	7.1		13	13	14
Good	123	21.9			28	95
<i>Undefined</i>	48	8.6	10		38	
Total	561	100	40	127	219	175

- Most of surveyed households which feel stuffy said that from 10 to 15:00 they feel the stuffiest a day. That occurs in summer and winter with ratios of 66.7% and 44.4%, respectively (Table 4.25).

Table.4.25. Time that the affected households feel the most stuffy a day

Time that the affected households feel the most stuffy a day	Total of household	Rate (%)	Ha Noi	Hung Yen	Hai Duong	Hai Phong
Summer	45	100.0	2	27	6	10
<i>4 am – 10 am</i>	11	24.4		5	6	
<i>10 am – 3 pm</i>	30	66.7	2	19		9
<i>3 pm – 8 pm</i>	4	8.9		3		1
Winter	27	100.0	2	13	3	9
<i>4 am – 10 am</i>	10	37.0		6	3	1
<i>10 am – 3 am</i>	12	44.4	2	6		4
<i>3 am – 8 pm</i>	5	18.5		1		4

- The most uncomfortable air resource which people in project area usually contact is the use of coal, gas and firewood with the ratio of 46.8 percent surveyed households (mainly in Ha Noi capital and Hai Duong province) while their 36.2 percent said that resource causing uncomfortable air is from dust, exhaust from construction (mainly in Hung Yen province). And 200 households have not any opinion.

Table.4.26. The most uncomfortable air resource when people contact

The uncomfortable air resource when contact	Total of household	Rate (%)	Ha Noi	Hung Yen	Hai Duong	Hai Phong
Coal, gas, firewood	173	46.8	25	2	122	24
Exhaust	25	6.8		1	15	9
Dust, exhaust from construction	134	36.2	6	100	14	14
Exhaust from manufactory	7	1.9		3	2	2
Smoke not from themselves	6	1.6			6	
The others	25	6.8	5		12	8
Total	370	100	36	106	171	57

4.1.4.2. *Vibration, noise*

The investigation of noise and vibration level during construction shows that they are normal or negligible (33% and 45.6%, respectively) while the number of people said that their levels are very large and large with the former of 4.9% and the latter of 7.8%. In Ha Noi, the project in Bao Dap hamlet – Kieu Ky commune drilled and drive in a stake, making large noise and vibration. That leads cracking wall in some houses in area.

Table.4.27. The evaluation of noise level in area

Noise level	Total of household	Rate (%)	Ha Noi	Hung Yen	Hai Duong	Hai Phong
Very high	28	4.9	5	9		14
High	44	7.8	1	30	5	8
Normal	258	45.6	3	70	118	67
Negligible	187	33.0	1	20	80	86
Undefined	49	8.7	30		19	
Total	566	100	40	129	222	175

4.1.4.3. *The situation of drainage*

The surveyed results (Table 4.28) show that the situation of drainage in area is relatively good, in which 64.7 percent of households said that the drainage system in their area is very good, without water-logging while the others witnessed water-logging from 1 to 3 times a year and 4 to 7 times a year with the former of 16.6 percent and the later of 10.3 percent. That caused by the size of sewer and the transport building materials.

Table.4.28. The situation of drainage in area of the effected household

The situation of drainage in area	Total of household	Rate (%)	Ha Noi	Hung Yen	Hai Duong	Hai Phong
Unaffected	358	64.7	34	46	146	132
1 - 3 times	92	16.6	3	25	45	19
4 - 7 times	57	10.3	2	27	18	10
8 - 12 times	11	2.0		6	3	2
> 12 times	35	6.3	1	25		9
Total	553	100	40	129	212	172

4.1.4.4. Effect of the construction on irrigation system

55.3 percent of surveyed households said that the construction of route affected on irrigation system. The agricultural land acquiring for construction broke the irrigation system, making many difficulties for irrigation water.

Table.4.29. Affect of the construction on irrigation system

Affect irrigation system	Total of household	Rate (%)	Ha Noi	Hung Yen	Hai Duong	Hai Phong
Yes	317	55.3	29	114	113	61
No	256	44.7	8	15	118	115
Total	573	100	37	129	231	176

4.1.4.5. The effect of construction on living and spirit of people

Table.4.30. The affect of construction on living and spirit of people

Ordinal	Factors	Total of household	Rate (%)	Ha Noi	Hung Yen	Hai Duong	Hai Phong
1	Affect on living of people	575	100	40	129	230	176
	Very high	27	4.7	3	7	15	2
	High	122	21.2	18	40	54	10
	Normal	245	42.6	16	69	116	44
	Negligible	177	30.8		13	44	120
	<i>Undefined</i>	4	0.7	3		1	
2	Effect on spirit	571	100	40	129	227	176
	<i>Yes</i>	34	5.9		11	8	15
	<i>No</i>	538	94.1	40	118	219	161

- The construction of project does not affect to living and spirit of local people (42.6 percent of surveyed households) while 30.8 percent of them said that it is negligible. However, 21.2 percent and 4.7 percent of households said that the construction has serious impact or much impact to agricultural production.

- 5.9 percent of surveyed households said that the construction affect to living and spirit of local people because of relocation of pagodas and temples (Hung Yen province) and some church, tombs in Hai Duong commune and Hai Phong city while 94.1 percent of them said that the construction does not affect to anything.

4.1.5. The general evaluation of project effect on people

Table.4.31. The general evaluation of project effect on people

The general evaluation of people on project effect	Total of household	Rate (%)	Ha Noi	Hung Yen	Hai Duong	Hai Phong
The positive affect	169	29.6	10	102	49	8
The negative affect	92	16.1	19	16	29	28
The negligible affect	310	54.3	9	11	152	138
Undefined	2	0.4	2			
Total	571	100	40	129	230	174

- 54.3 percent of surveyed households said that the project effect negligibility on people’s living while these figures in positive, negative effect and indetermination are 29.6 percent; 16.1 percent and 0.4 percent.

- Most the opinions of surveyed households support vigorously the state policies of road construction in order to develop the local economy in particularly and socio-economic development of country. However, the project need to consider the negative impact for affected households, especially the compensation for career change.

4.2. The situation of public health in project area

4.2.1. The status of local health centre

Each of commune/precinct, town has built health centre where still has many limitation of doctors, sick-bed quantity, particularly in quality of health care equipment, leading many difficulties in examination and treatment medically for local people.

- *The number of doctors and patients:* Base on the survey, mostly health centres in affected area have the maximum of doctor to be 1 people, even without any and the number of doctors is from 2 to 5 people while this figure with sick-bed is from 4 to 12 ones. In the first of 6 months 2011, the inpatient and outpatient are 3 - 200 people and 5 - 3500 people, respectively.

- *The health care equipment:* In general, the health care equipment in health centre in project area is relative limitative such as cardiograph, prenatal care and dental equipment and etc.

- *The number of people with health insurance:* based on the survey, most of communes have the number of people with health insurance to be over 30 percent.

- *The examination and treatment medically and periodical health care program:* Many national target programs have implemented such as public health, HIV/AIDS and Vitamin A for children and reproductive health with once a month.

4.2.2. The situation of public health

4.2.2.1. The sexually transmitted diseases

The survey results show that the common of sexually transmitted diseases is hepatitis B, HIV/AIDS and others infectious diseases (Table 4.32).

Table.4.32. The number of people with sexually transmitted diseases

Ordinal	Name of Commune/precinct	HIV/AIDS (people)	Gonorrhoea (people)	Syphilis (people)	Hepatitis B (people)	The others (people)
1	Ha Noi (3 communes)	37	0	0	5	218
2	Hung Yen (13 communes)	33	36	36	2594	70
3	Hai Duong (30 communes)	64	16	4	4520	1024
4	Hai Phong (10 communes)	56	18	0	4463	1100

a, Ha Noi province

HIV/AIDS appears with the most people (29 cases) in Kieu Ky commune of 3 communes belonging to area project, occupying 0.26 percent of local people. There are 5 people with hepatitis B in Da Ton commune and without gonorrhoea and syphilis while 218 people with infectious disease are in Dong Du commune.

b, Hung Yen province:

Yen My, An Thi and Van Giang are surveyed districts where have 2.594 people with hepatitis B, in which Bai Say commune and Hoan Long commune have patients respectively with 1500 and 774 cases. There are 33 people with HIV/AIDS distributing equally in communes, in which those in Tan Viet and Yen Phu commune are 8 and 7 cases. Each of the sonorrhoea and syphilis has 36 patients mainly in Yen Phu commune (30 cases) and Tan Viet commune (6 cases) where has the most people with sexually

transmitted diseases while 70 people with other infectious disease in Tan Viet commune (50 cases) and Tan Tien commune (20 cases).

c, Hai Duong province

The survey results show that 22 communes in Hai Duong province have 64 cases with HIV/AIDS, mainly in Yet Kieu, Binh Lang and Le Loi commune with 9 patients while the others have not any cases. Gia Loc town (Thuc Khang commune) and Co Bi commune have 16 cases with gonorrhoea and 4 cases with syphilis. There are 4.520 cases with hepatitis B mainly in Nhan Quyen commune (1040 cases), Tan Hong commune (929 cases), Binh Minh commune (852 cases); Thai Duong commune (786 cases) and Tai Son commune (760 cases). In addition, 1024 patients with other infectious disease distributes in Thai Hoc commune (550 cases); Le Loi commune (200 cases); Tu Xuyen commune (198 cases); Yet Kieu commune (45 cases); Thuc Khang commune (30 cases) and Thanh Cuong commune (1 case).

d, Hai Phong city

10 surveyed communes in Hai Phong city have 56 people with HIV/AIDS, in which Nam Hai precinct has the most patient with 23 cases. There is disappearance of syphilis while the gonorrhoea with 18 patients distributes equally in Thuan Thien commune (10 cases) and An Thai commune (8 cases) where have people with the hepatitis B, respectively 3063 cases and 200 cases of total of 4463 patients with hepatitis B. 1100 cases with infectious disease are in Thuan Thien commune (600 cases) and An Thai commune (500 cases).

4.2.2.2. *The infectious disease*

Kind of infectious disease in affected area are mainly tuberculosis, influenza, Rubella, diarrhoea and etc. In Hanoi, there are 81 cases with infectious disease, in which this figure in Da Ton commune is maximum of 74 cases.

In Hung Yen, total of people getting infectious disease are 556, including 500 cases in Bai Say commune and others are 1 to 12 cases.

There are 3.085 people with infectious disease in project area of Hai Duong province mainly in Hoang Dieu commune (1030); Gia Loc town (643); Quang Phuc commune (430); Thanh Binh commune (250); Tu Xuyen commune (198); Thanh Cuong commune (140) and Hung Dao commune (110).

Hai Phong city has 480 people with infectious disease mainly in Thuan Thien and An Thai commune with the most patient respectively 300 and 100 people while that in the others communes is from 3 to 30 people (Table 4.33).

Table.4.33. The number of people contract a disease in commune area project

Ordinal	Name of commune/precinct	Infectious disease	Chronic disease	Occupational disease	Lung	Respiratory disease	Eye disease	Gastrointestinal	Eye Nose & Throat diseases	Skin disease
1	Ha Noi	81	111	7	125	1521	380	75	4848	76
2	Hung Yen	566	1657	39	1582	2377	875	840	1538	926
3	Hai Duong	3085	8222	19	4198	9416	3648	3331	4675	3090
4	Hai Phong	480	3318	304	2486	1740	881	900	1960	402

Unit: People

4.2.2.3. Chronic diseases

Kinds of the chronic diseases in affected area cardiovascular disease, blood pressure disease, diabetes, mental illness and etc, which their numbers are relatively large (Table 4.33), leading to difference between communes.

Hoan Long commune (Yen My district, Hung Yen province) has 1160 people with the chronic diseases occupying 70 percent of 1657 patients.

In Gia Loc district, Hai Duong province, Hoan Long commune has 3.860 people with the chronic diseases occupying 30 percent of local people total while this figure in Binh Minh commune, Binh Giang district is 1.066 occupying 25 percent.

Hai Phong city has 3318 people with the chronic diseases which distributes to Thuan Thien and Huu Bang commune.

4.2.2.4. Occupational diseases

The survey results show that number of people with the occupational diseases is less than that with others diseases. They distribute to Thuan Thien commune, Kien Thuy district, Hai Phong city with 300 patients occupying 81 percent of total people with the occupational diseases in affected area (Table 4.33).

4.2.2.5. Lung disease

There are many people getting the lung disease (Table 4.33) which their figures in Ha noi and Hung Yen are 125 and 1582 people, mostly in Da Ton commune with 113 people and Hoan Long commune with 1160 people. Hai Duong province has 4198 patients, including 1.000 patients Le Loi commune, 852 patients in Binh Minh commune, 501 patients in Hung Dao commune, 450 patients in Thai Hoa commune, 360 patients commune, 215 patients in Gia Loc town and 200 patients in Hong Khe

commune while this figure in Hai Phong city is 2486 patients, mainly in Thuan Thien commune with 2000 patients.

4.2.2.6. The respiratory disease

There are 1521 people who get the respiratory disease in Ha Noi capital, including 1.389 people in Da Ton commune while this figure in Hung Yen province is 2377 people, in which 1547 in Hoan Long commune. Number of people who get the respiratory disease in Hai Duong and Hai Phong city are 9416 and 1740, respectively and equal distribution in communes.

4.2.2.7. The eye disease

The common eye diseases in survey area are cataract; presbyopia, astigmatism which affect to children and elderly. In Ha noi capital, there are 380 people getting the eye disease, mostly in Kieu Ky and Dong Du commune while this figure in Hung Yen province is 875 cases which includes 387 cases in Hoan Long commune. Hai Duong province has 3648 patient distributing in communes, in which Hung Dao commune has the most people getting eye diseases with 1100 cases while Hai Phong city has 881 case, mostly in Dai Dong and Kien Thuy commune with 664 people.

4.2.2.8. The gastrointestinal disease

There are 75 people who get gastrointestinal disease in the survey communes in Ha Noi capital, in particularly, Kieu Ky commune has not any case while these figures in Hung Yen province are 840 people which include patients in Hoan Long, Tan Tien and Xuan Truc commune, respectively 232, 200 and 108 people. There are 3331 people getting gastrointestinal disease in Hai Duong province, including those in Binh Minh commune (639 people), Thai Hoa commune (600 people) and Hung Dao commune (500 people) while this figure in Hai Phong city is 900 cases which appears the most case in Huu Bang commune with 300 people.

4.2.2.9. The Ear Nose & Throat disease

Based on the survey results, there are many people with Ear Nose & Throat disease in 4 provinces, in which Ha Noi capital has 4.848 cases, mostly in Da Ton commune with 1.520 cases and Kieu Ky commune (3323 cases) while Hung Yen province has 1538 cases, including the most patient in Bai Sayn (500) and Tan Tien (300). This figure in Hai Duong province is 4675 cases, distributing to communes. There are 1.960 patient with the Ear Nose & Throat disease in 10 communes/precincts, in which three communes have not any case as Dai Dong, Dong Hai and Trang Cat while Nam Hai precinct has cases at least (30 people) and those in others are from 100 to 500 people.

4.2.2.10. Skin-disease

The skin-disease which appears in area is ringworm, versicolor pityiasis, allergy, varcella and etc. In Hanoi, number of patient are 76, in which Kieu Ky commune does not any patient while these figure in Hung Yen province are 926 cases (mainly in Tan Tien commune has 500 patient). The survey results of 30 communes in Hai Duong provinces show that all of them have patients getting skin disease with 3090 people, including 938 cases in Binh Minh. In Hai Phong city, these figures are 402 cases, in which An Thai commune has the most patient with 250 people.

4.2.3. Cause of the disease by construction activities

The cause of the disease from construction activities is mainly due to air pollution, noise, water, soil and others. The surveys in 56 communes belonging to 4 provinces in area project show that causes of lung, respiratory disease, gastrointestinal disease, Skin-disease, the Ear Nose & Throat disease are mainly air pollution (44.6%), noise (23.2%), water (35.7%), soil (8.93%). 23.2 percent people said that the air pollution causes infectious disease. In addition, 46.4 percent people said that a large concentration of workers in construction sites caused the increase in sexually transmitted disease.

4.2.4. The seasonal distribution of disease

The results show that kinds of diseases which usually seasonal fluctuation are infectious disease and lung, respiratory disease, gastrointestinal disease, Skin-disease and etc. Infectious disease increases in spring (41.1%); summer (35.7%) and winter (41.1%) while lung, gastrointestinal disease, Skin-disease rises in spring (57.1%); summer (48.2%) and winter (60.7%).

CONCLUSION AND RECOMMEND

1. Conclusion

1.1. The economic-social condition of affected households

a, The economic condition

- The rate of people in working age is from 60 to 70 percent while the rate of people working in factories and enterprise is 3.3 – 10.6 percent. 72.1 percent of surveyed households have main income from farming.

- The rates of poor houses in Ha Noi, Hung Yen, Hai Duong and Hai Phong are 0%, 0%, 3.4% and 6.8%, respectively. Revenue of household in a month of 4 provinces is mostly from 1 to 4 million vnd and under 0.5 million vnd are 61% and 9% while total of expense a month of surveyed households from 1 to 4 million vnd is 67 percent.

b, Compensation, resettlement and help in a career change

- Compensation policy: 84.4 percent of households have not been satisfactory; 15.2 percent of households have been satisfactory; 0.4 percent of households have not determined.

- Infrastructure in resettlement areas:

+ The supplied water source is mainly well-water, having aluminous, off-taste and turbid

+ The electricity source: some resettlement zones have not had electricity and the others have had unstable electricity.

+ The school and health centre are relative enough and near resettlement zones.

+ The drainage situation: mostly drainage are good, without flooding

- Purpose of using compensation money: mostly for buiding.

- The effect of relocation to the current job: 51.2 percent of households are not influenced; 48.8 percent of households are influenced, in which 60.4 percent of households do not change their jobs.

- Time that stable new life: 74.9 percent of people said that it is over 6 months.

c, The effect of construction on transportation in area

Mostly opinions are not determined such as 31.9 percent of people said that traffic conditions fragmented affecting the travel; 5.7 percent of people said that the construction of route has increased the status of traffic accidents and 12.3 percent of people said that the density of transport increases in project area.

d, The impact of the construction of route to environmental quality and lives of people in the region.

- Air quality: most of the opinion said that the air quality is good, does not affect people's health.

- Source of unpleasant air: 46.8% from coal, firewood, gase and 36.2% of dust, exhaust fumes from construction.

- The level of noise and vibration: 33 percent of people said that it is normal; 45.6 percent of people said that it is negligible; 7,8 percent of people said that it is large; 4.9 percent of people said that it is very large.

- The situation of drainage in the area: 64.7 percent of people said that it is very good; 16.6 percent of people said that it is drained from 1-3 times a year; 10.3 percent of people said that it is drained from 4-7 times a year.

- The effect of construction on irrigation system: 55.3 percent of people said that it has effect.

- The effect of construction on living of people: 42.6 percent of people said that it does not effect; 30.8 percent of people said that it is negligible; 21.2 percent of people said that it is large; 4.7 percent of people said that it is very large.

- The effect of relocation of monuments, pagodas temple: 5.9 percent of people said that it has influence and 94.1 percent of people said that it has not influence.

e, The general evaluation of project effect on people

54.3% negligible impact, 29.6% positive impact; 16.1% negative impact and 0.4% undefined.

1.2. The situation of health's public in project area

a, The status of health centre

Each commune, precinct or town have built clinics but there are still many restrictions on the number of doctors, number of beds, especially the quality of health care equipments, which still exists difficulties in the health care services for local people. Many national target programs have been implemented such as public health, HIV/AIDS, Vitamin A to children, reproductive health. The health care of mothers and children were taken by the local health system, a periodic once/month.

b, The situation of health's public

- The air and water are main causes disease which usually increases sharply in the spring, summer and winter.

- The common diseases in the project area such as: hepatitis B, infectious, respiratory, chronic, and they often concentrated in a few communes.

2. Recommend

There are many difficulties in the compensation support to households which lost their land, leading to influential to the clearance in some areas. The project

management need coordinate with localities to solve this situation in order to ensure the progress of construction of route is not affected. In addition, the construction completion of the resettlement zone also need to be done early to households stabilizes quickly life in the new place.