

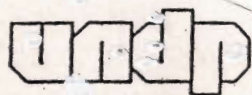
UNITED NATIONS



UNCHS

UNDP/UNCHS/ Project VIE/86/020

Appropriate Technology Transfer in Construction



Second training course for Vinh Phu local staff.



Progress Report

**January 1992
DW/GRET & CERPAD**



Credits

VIE/86/020 : Assistance to Human Settlements Planning and Development in Rural Areas

Funding:	United Nations Development Programme (UNDP)
UN Executing Agency:	UNCHS (Habitat) - Nairobi, Kenya
Government Implementing Agency: Development)	CERPAD (National Centre for Rural Planning and Ministry of Construction, Hanoi, Vietnam

Sub-contract : Appropriate Technology Transfer in Construction

Sub-contractor (consortium of NGO's): Development Workshop - Lauzerte, France
GRET - Paris, France

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Chapter 3.

CERPAD report

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Note:

Survey forms for needs and resource analysis which were developed in English in Ninh Van commune, and which have now been used again in their revised Vietnamese form. are not reproduced here in english, and readers should refer to the 1st progress report on Ninh Van Commune, in November 1990, and subsequent documents.

Chapter 1.

Presentation and programming for the 2nd Training Workshop - Developing actions in Vinh Phu Province: overview of results.

1. Commentary

The focus of action in Vinh Phu province is to develop the skills of the district and commune staff, and for this, the training sessions and workshops have become most important.

It has also been recognized, and DW-GRET consider it to be a point of considerable importance, that one should not attempt to undertake too many actions in any given commune at one time, if it is accepted that a secondary objective after the concern of developing the commune is to develop the capacity of the local authorities and development workers to take on these roles themselves. This is impossible if too many actions are attempted at the same time, and can be seen to have hampered capacity building in Ninh Van Commune.

Thus in identifying priority actions, these have been reduced in number, and progress should be phased.

There should be no rush to do everything in a short period of time.

With regard to developing a credit programme, this can only take place if the project VIE/86/020 is extended to give the necessary time for monitoring the progress of such an activity. It is nevertheless a fundamental aspect of the programme.

Programming notes are given in Chapter 2, and reports by CERPAD are presented (as received) in chapters 3 and 4.

**2nd training course Vinh Phu local staff
14/17 January 1992
Identification of actions**

PRESENTATION

I/ Objectives

- * Develop the global RIPI process which associates the local staff (CERPAD counterparts) in all stages.
- * Evaluate the results of first surveys, and identify priorities for the communes B2 & B3.
- * Set up a Rural Development Board at Commune level, with District support.

II/ Participants

The course will be organized in two sessions (one for each Commune) involving :

- Local staff from District (4)
- Commune Board (4)
- Representative of Province (1)

III/ Expected results

- * Local staff mobilized for the ongoing process
- * Identification of priorities for the Communes (Needs, resources)
- * Draft of proposed actions

IV/ Training materials (in Vietnamese)

- Programme
- Results of surveys (Family questionnaire, public facilities, road system, irrigation, building materials)
- Synthesis of : Main problems, Resources and local capacity
- Maps
- Examples (from Ninh Vanh) of Technical dossiers

**2nd training course Vinh Phu local staff
14/17 January 1992
Identification of actions**

PROGRAMME

Tuesday 14/1/1992 Thang Son

Session I : 14 h - 17 h

- * Introduction
- * Presentation : results of surveys, identified priorities
- * Discussion

Wednesday 15 Thang Son

Session II : 8 h - 11 h 30

- * Field work, in 3 groups (Public facilities (Clinic), family credit, local participation - Commune Board)
- * Results

Session III : 14 h - 16 h 30

- * Identification of detailed actions : performance criteria
- * Planning of activities

Thursday 16 Xuang Vien

Session I : 8 h - 11 h 30

- * Introduction
- * Presentation : results of surveys, identified priorities
- * Discussion

Session II : 14 h - 16 h 30

- * Field work in 3 groups (Construction techniques- walls/roofs, family economy, women participation)

Friday 17 Xuang Vien

Session III : 8 h - 11 h 30

- * Identification of detailed actions : performance criteria
- * Planning of activities

CHƯƠNG TRÌNH LỚP TẬP HUẤN PHÁT TRIỂN
NÔNG THÔN TẠI VINH PHU LAN 2 CHO CÁN BỘ ĐỊA PHƯƠNG

Thời gian 14/1 - 17/1/1992

* Thứ ba, ngày 14/1/1992: Tại xã Thắng Sơn (Thanh Sơn)

14h - 17h:

- Giới thiệu
- Giới thiệu kết quả điều tra, các ưu tiên được xác định.
- Thảo luận

* Thứ tư, ngày 15/1/1992: Tại xã Thắng Sơn

8h - 11h30:

- Công tác thực tế, chia làm 3 nhóm (các công trình công cộng, tín dụng tới gia đình, sự tham gia của địa phương).

14 - 16h30:

- Xác định các hoạt động cụ thể: Các tiêu chuẩn thực hiện.
- Lập kế hoạch hoạt động

* Thứ năm, ngày 16/1/1992: Tại xã Xuân Viên (Yên Lập)

8h - 11h30:

- Giới thiệu
- Giới thiệu kết quả điều tra, các ưu tiên được xác định.
- Thảo luận.

14h - 16h30:

- Công tác thực tế chia làm 3 nhóm (kỹ thuật xây dựng tường mái, kinh tế gia đình, sự tham gia của phụ nữ trong công tác phát triển hạ tầng nông thôn).

* Thứ sáu 17/1/1992

8h - 11h30

- Xác định các hoạt động cụ thể, các tiêu chuẩn thực hiện
- Lập kế hoạch hoạt động.

2nd training course Vinh Phu local staff
14/17 January 1992
Identification of actions

ANIMATORS

Thang Son

Session I

- * Quy, G.Chantry (GC)
- * Giang

Session II

- * Public facilities : Tuan +
- * Family credit : GC, Nha
- * Participation : Quy, Giang

Session III

- * Giang, Tuan
- * Quy, GC

Xuang Vien

Session I

- * Quy, GC
- * Tuan

Session II

- * Construction techniques : Nha Giang
- * Family economy : GC, Quy
- * Women participation : Tuan

Session III

- * Tuan
- * Quy, GC

List of participants in 2nd workshop.
VINTE PHU

1) CERPAD:

Mr. Hoang Linh Long

Chief planner.

Mr. Dam Quang Tuan

Chief planner of Xuanvien project

Mr. De Van Giang

Chief planner of THANH SON project

Mrs. Nguyen Thuy Nha

Engineer of building material.

2) Provincial Department for construction:

Mr. Nguyen Ngoc Tung

Architect.

3) THANH SON district:

Mrs. Nguyen Thi Thinh

Vice chairman of DPC.

Mrs. Le Thi Minh Tan

Chief of construction section.

Mr. Dang Hong Manh

Technical on construction.

Mr. Bui Quang Ly

Technical on construction.

Thang Son commune:

Mr. Dinh Van Kinh

Chairman of CPC.

Mr. Dinh Van Hoan

Member from CPC.

Mr. Dinh Bang Phan

Member from CPC.

Mr. Nguyen Van Hoa

Member from CPC.

4) YEN LAP district:

Mr. Phan Van Dieu

Vice chairman of DPC.

Mr. Le Anh Tuan

Technical on construction

Mr. Phan Van Lich

Chief of construction section,
planning section.

Mrs. Hoang Thi Chung

Member from DPC.

Mr. Nguyen Tien Fong

planning section

Xuan Vien Commune:

Mr. Thang

Member from CPC

Mr. Dinh Xuan Thiem

Chairman of CPC.

Mr. Thanh

Vice chairman of CPC

Mr. Huy

Technical on construction.

Works done through workshop :

- 1/ - Presentation once gain on process of selection the commune and implementation of rural infrastructure development in all stages
 - presentation the stages undertaken and the stage going on.
 - presentation the coordination between counterparts in the process
 - Requirements for work will be done of next step.
 - Checking the setting up Rural development board at commune level with district support and their activities after having the Board
 - Chief planner of each commune project presented and evaluate the results of first survey through the data processing on computer and through seeing the facts.
 - Chief planner identified priorities for the communes B₂, B₃ with analyzing needs, resources, capacities.
 - First discussion on works done and identified priorities, criteria for technology selection ...

2/ Field work :

- Division the participants into groups to study and get more deep information on priorities proposed. Field work done with contents involved to public facilities (school, clinic, market), Family credit, family economy, local participation, construction techniques (cost, building material, roofing, wall...), women participation

Each group taken part with member from CERPAP, district and Commune, they had discussion on the site.

- 3/ Each group presented their works and proposal.
- 4/ Second discussion after field work for all participants to inform new data, describe ideas, discuss on priority, on technologies selected.
- 5/ Third discussion among all participants and commune ^{district} leaders : to get agreement on selected priorities, the place and size of

works and to draft a plan for next activities.

6/ CERPAD met Mr. Fleury, Director of provincial department for construction to inform him ~~the~~ workshops and works done draft of plan for next activities. Discuss in brief on the coordination between counterparts for next time and remark strongly on district role in the process of planning and implementation rural infrastructure. Works in detail will be discussed ^{as} soon as possible after having work plan of next stage.

Results of workshop:

- The participants from districts and commune take part in present stage of RIPI process
 - The participations of districts members is more deep and strong and higher responsibility, more in detail.
 - Member from districts and commune get more experiences in RIPI process.
all reveals local staff have been mobilizing for ongoing process.
 - Gained identification of priorities for the communes.
 - Draft of proposed actions.
-

Field work

1. THANG SON

a/ Public facilities : ex. Clinic

- History of the facility (building, function, equipment, personnel...)
- Compare the situation with others public facilities.
- Analyze the health care situation in the commune (related to next communes)
- Survey (doctors, nurse, people...) the real needs
- Study the capacity of the commune (district ?) to manage the Health center

b/ Family credit

- Analyze the existing systems (Rural Bank, cooperatives, groups "tontines", private credit)
- Identify briefly the family needs for credit :
 - * activity
 - * amount (interest)
 - * periodicity of reimbursements
- Study the interest for different systems (individual, by groups - solidarity-, management - commune, teams, farmers...)

c/ Local participation

- Organize the Commune board for Rural Development
- Define precisely activities and organization

2. XUANG VIEN

a/ Construction techniques

- Compare the techniques in the commune for
 - * roofing
 - * walls
- with description/evaluation of technology, costs, ~~materials~~...

b/ Family economy

- Detailed survey of ~~20~~ 4 families (Group 1 ; 2 ; 3 ; 4)
 - * income, expenditures
 - * choices for investment

c/ Women participation

- Analyze how the women in the commune could be involved in the RIPI process.
- Set up, as required in Evaluation mission, "focus group".

Family situation in Thang Son and Xuan Vien Communes (50 families/1991)

DATA	Unit	Thang Son	Xuan Vien
I. Population, Labour			
1. Ethnic group	%		
- Kinh		10	0
- Muong		90	100
2. Size of family	%		
1-3		16	12
4-5		30	24
6-7		36	34
>7		18	30
- size per group	n		
G1		4.8	6.1
G2		5.9	6.5
G3		6	6.4
G4		5.7	9
average		5.7	6.4
3. Age	%		
<6		14	19
6-15		31	28
15-60 (working age)		50	44
>60		5	9
4. Labour	%		
- labour employed		84	83
5. Education	%		
- Children <6 att. kindergarden		87	62
- Children 6-15 att. prim. school		93	82
6. Education level	%		
> Secondary school		4	
Secondary school		36	6
Primary school		60	92
Illiterate			2
7. Settlement	%		
<1960		92	96
1960-80		2	4
>1980		4	
II. Land use			
1. Cultivated land	Sao (360 m2)		
- per person		1.34	1.55
- per worker		3.19	4.20
- per household		7.6	9.9
G1			7.9
G2		6.1	10.6
G3		8.3	11.4
G4		7.8	16.5
		8.3	
2. Irrigation	%		
- full irrigation		0.79	62
3. Forestry			
- % household	%	54	20
- area/worker	Ha	0.77	0.34
4. Gardening			
- % household	%	98	96
- area/person	Sao	0.79	1.08
- area/worker	Sao	1.9	3.0

<i>DATA</i>	<i>Unit</i>	<i>Thang Son</i>	<i>Xuan Vien</i>
III. Housing			
1. Plot (per person)			
- size	Sao/person	0.98	0.83
- construction area	Sao/person	0.26	0.16
- garden	Sao/person	0.72	0.67
- main house	m2/person	12.46	10.12
2. Plot (per family)			
- size	Sao/fam.	5.6	5.3
- construction area	Sao/fam.	1.5	1.0
- garden	Sao/fam.	4.1	4.3
- main house	m2/fam.	71	65
3. House	%		
- tiled roof		6	
- thatch roof		94	100
- bricks walls		6	4
- bamboo / earth walls		94	96
4. House construction	%		
- < 1960		6	10
- 1960-75		40	34
- > 1975		54	56
5. House condition	%		
- need to repair		48	90
- need to rebuild		64	80
6. Latrines	%		
- % household		86	98
- % brick latrine		9	4
7. Water supply			
a/ Resource	%		
- well		90	70
- river, stream		6	12
- other		4	18
b/ Quality	%		
- good		64	32
- medium		36	50
- bad			18
c/Quantity / day	Ganh = l		
- per person		1.4	1.1
- per household		7.8	6.8
8. Means of transport			
a/ Person	%		
- bicycle		88	38
- motorcycle, others		4	2
b/ Goods	%		
- carts		78	38
- others		0	2

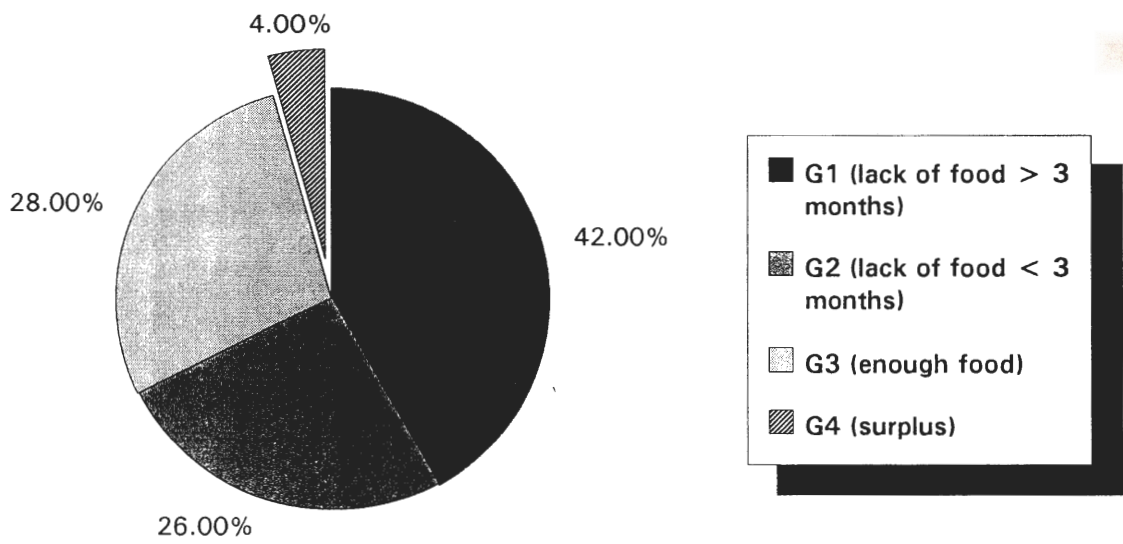
DATA	Unit	Thang Son	Xuan Vien
IV. Family economy			
Repartition			
- G1 (lack of food >3 months)	%	24	42
- G2 (lack of food <3 months)	%	36	26
- G3 (enough food)	%	34	28
- G4 (surplus)	%	6	4
Income			
2. Rice production			
a/ Production			
G1	Kg/person	221	140
G2		252	202
G3		283	224
G4		358	372
average		263	193
b/ Productivity			
G1	Kg/sao	102	74
G2		116	69
G3		140	70
G4		145	115
average		123	74
3. Gardening			
1 000 D/p/y			
G1		127	13
G2		36	30
G3		46	41
G4		76	44
average		61	27
4. Cattle raising			
1 000 D/p/y			
G1		17	19
G2		36	30
G3		42	41
G4		40	44
average		35	27
5. Poultry			
1 000 D/p/y			
G1		8	6
G2		12	10
G3		6	19
G4		16	7
average		9	11
6. Food stuff (equivalent 2.a)			
1 000 D/p/y			
G1		265	169
G2		302	243
G3		340	269
G4		430	447
average		315	232
7. Total income / person			
1 000 D/p/y			
G1		417	206
G2		386	307
G3		434	371
G4		562	511
average		420	297
8. Total income / family			
1000 D/y			
G1		2 000	1 250
G2		2 275	2 000
G3		2 600	2 375
G4		3 200	4 600
average		2 400	1 900

DATA	Unit	Thang Son	Xuan Vien
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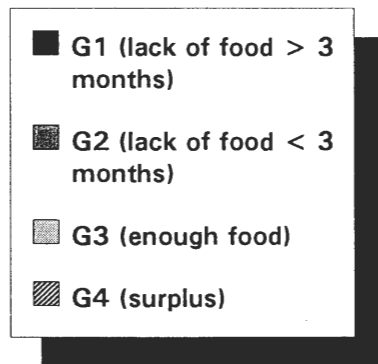
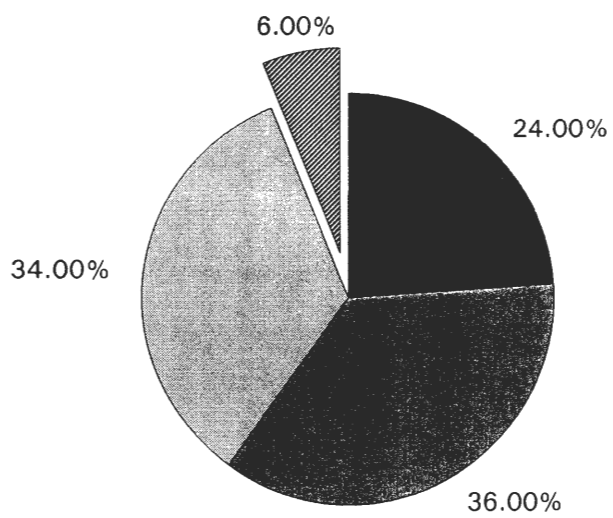
Expenditure			
1. For agriculture	1 000 D/p/y		
G1		60	36
G2		54	56
G3		64	68
G4		244	69
average		70	52
2. For housing	1 000 D/p/y		
G1		131	67
G2		64	5
G3		164	6
G4		214	28
average		122	32
3. For furniture, facilities...	1 000 D/p/y		
G1		77	10
G2		69	2
G3		100	17
G4		62	16
average		122	11
4. Total expenditure / person	1 000 D/p/y		
G1		268	113
G2		187	63
G3		328	91
G4		520	113
average		274	94
5. Total expenditure / family	1 000 D/y		
G1		1 300	700
G2		1 100	410
G3		1 900	580
G4		3 000	1 150
average		1 560	600

V.Plans			
1. Develop family economy	%		
- gardening		96	96
- cattle		98	100
- rice production		88	98
- forestry plantation		38	10
- handicraft		6	8
2. Improve housing	%		
- % household		88	98
- amount	1 000 Dgs	4 680	3 080
4. Wish to invest			
- capacity		92	100
		45	45
5. Saving			

Repartition of families in Xuang Vien



Repartition of families in Thang Son



standard solutions before this deeper knowledge has been acquired. Actions could potentially begin in April once there is a clear base of identifying needs.

Investigative work should be undertaken on water lifting methods available, starting with a detailed undersanding of the methods already in use.

For energy, a detailed study should compare needs for cooking, heating, lighting, milling, baking bricks, and other energy needs, and identify which is the real need, what solutions already exist in the commune, and if solutions are not available, an identification of what could be developed.

2. Xuan Vien Commune

After the workshop (see separate report) in January 1992, 6 areas of action have been identified.

1. School building
2. Small dams
3. Culverts
4. Develop a credit system for households
5. Housing

In subsequent discussion it has been agreed that action should proceed on items 1 and 3. Investigation is needed on action 2 (Small dams) and should be undertaken in February and March to establish the detailed needs and best techniques to be used. A detailed dossier should be develop and costed.

The school design must be developed in collaboration with the local counterparts, and must be based on clear design and material choice criteria. Detailed discussion have been held on the school design, and have focussed on where the main difficulties lie in the durability of the school and in creating comfort in winter.

Window design is again critical, and it has been suggested that windows should be narrow, with a lower portion made of wooden shutters, and an upper portion, unopenable, of glass, out of reach of children.

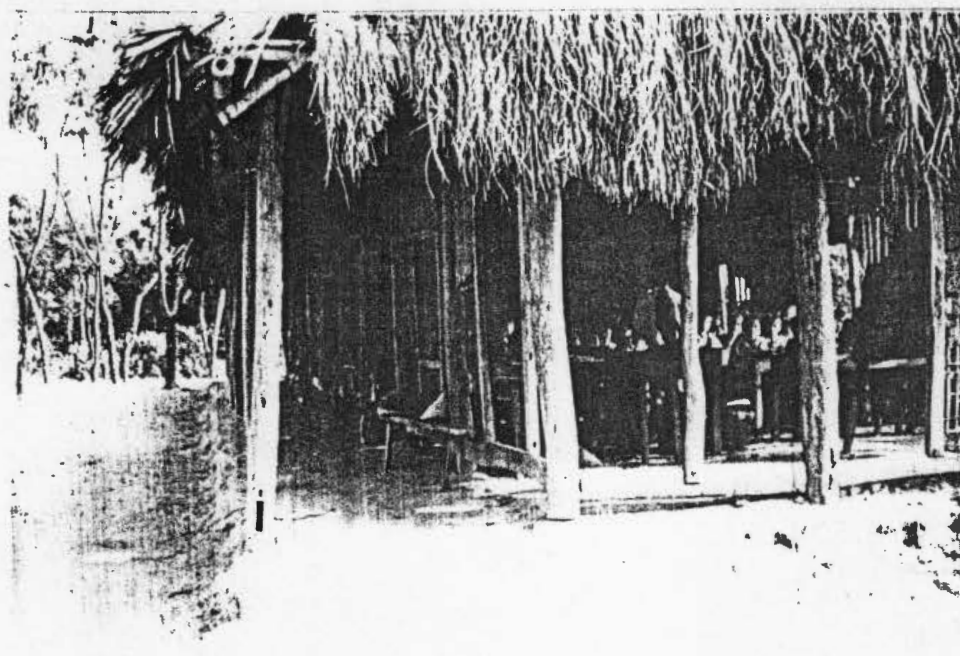
In this commune, a detailed comparison of the costs and benefits of different earth wall construction techniques, and the results should clearly the benefits that can be made to local incomes, and not only the basic cost.

In developing culverts and fords it is important to develop a commune level skill in building simple culverts for draining water across roads. Credit is the third priority: CERPAD should contact other organizations in Hanoi working on this issue, through Jean Francois Mondain Monval Tel 265 386. CERPAD should initiate a series of detailed household studies examining life style, patterns of work and use of space, and household economics and seasonal activity, in order to develop a better understanding of the nature of required loans and their scale, and the potential of repayments. Studies should be done in about 12 households during the February April period.

Chapter 3.
CERPAD report
Rural infrastructure development in Thang Son
Commune, Thanh Son District, Vinh Phu.

National centre for rural planning and development
CERPAD

Project
Rural infrastructure development
in Thang Son commune
Thanh Son district, Vinh Phu Province



Report on commune situation, needs resources,
potentials and identification of priorities.

Hanoi, 1/1991

General situation:

Thang Son commune is one of 3 communes that are situated in transitional area between mountainous and hilly region of Thanh Son district. It is a commune with complicated topography, hills occupied almost the commune surface. There is little land in the commune, land is poor and mixed with sand, land doesn't keep water that resulting difficulties for people's life and production.

Muong national minority takes up 90% total commune's population (Kinh 10%). Almost people live on agricultural production (mainly rice production), no handicraft in commune.

Low development on social-cultural in commune have been influenced to the adoption new achievement of science and engineering for production.

Almost the facilities served production are not available (There is up stream water for irrigation but no investment for irrigation system), watering paddy and subsidize crops mainly based on natural condition - The commune lacks of irrigation system resulting severe drought in drying season and flooding in raining season, it make a low productivity in farming.

On the other hand, the commune has no proper organization for exploitation and utilization hill forestry. In general it's population depend on agriculture and related activities, for these difficulties, people lack of food and live with bad conditions.

I. Existing situation

1. Background:

1.1. Development process of commune:

Although the commune being located in the area which is not favorable agricultural-forestry production but long time ago, Muong people came here to settle up with generations and through years, the commune become more crowded. In the past, the commune belonged to Phu Tho province in 1960's Phu Tho and Vinh Phu joined together and named Vinh Phu. To day Thang Son belongs to Thanh Son district, Vinh Phu province.

1.2. Location:

Thang Son is situated in the Eastern-southern of Thanh Son district. It is 28 km far from district centre, 50 km between commune and Viet Tri town and a distance of 120 km from Hanoi city. There is National road (24 A) through the commune joined Thanh Son district with Hoa Binh hydroelectric station.

- Eastern bordered with Phuong Mao and Trang Ngia communes (Tam Thanh) district.
- Western bordered with Cu Dong (Thanh Son district)

- Northern bordered with Hoang Xa (Tanh Thanh district)
- Southern bordered with Huong Can (Thanh Son district)

1.3. Topography:

Hilly land takes up 79% total surface area of the commune. Slope of land is 15-20 degree on average, highest slope is 35-40 degree that is suitable for forestry plantation.

Arable land takes up 21% total surface area (paddy and third crop). Almost of cultivated land formed with stepped field and narrow sprites of land between hills.

There is no big river and stream flow through the commune, but some small lake, pool and stream. This makes difficulties for agricultural-forestry production in commune.

1.4. Climate condition

- Temperature: 23,34oC on average yearly
 - Most hot months: May, June (37,5oC)
 - Most cold months: November, December (7,8oC)
- Rainfall:

Max rainfall	2010,9 mm
Min rainfall	1500,0 mm
Average annual rainfall	1727,5 mm

Thus, it makes flooding in rainy season

Max rainfall is in July, June

Min rainfall is in November, December

-Humidity: The rainfall yearly is quite high that resulting the humidity yearly also quite high. Average humidity yearly is 86,9%

- Wind: No typhoon, average speed of wind is 2,1 m/s during typhoon, light wind in general

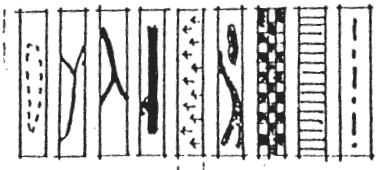
1.5. Land use:

- Natural surface area	totaled	880,00 ha	
of which:	+ Cultivated land	179,02 ha	20,4 %
	+ Hilly land	480,40 ha	54,5 %
Including natural forestry land: 5 ha			
	. Forestry planted state farms	: 150,00 ha	
	. Uncultivated land	: 224,30 ha	
	+ Other, including:	220,80 ha	25,1 %
	- Villages	196,29 ha	
	- Road	18,00 ha	
	- Irrigation, lake, pool	0,29 ha	

1.6. Population:

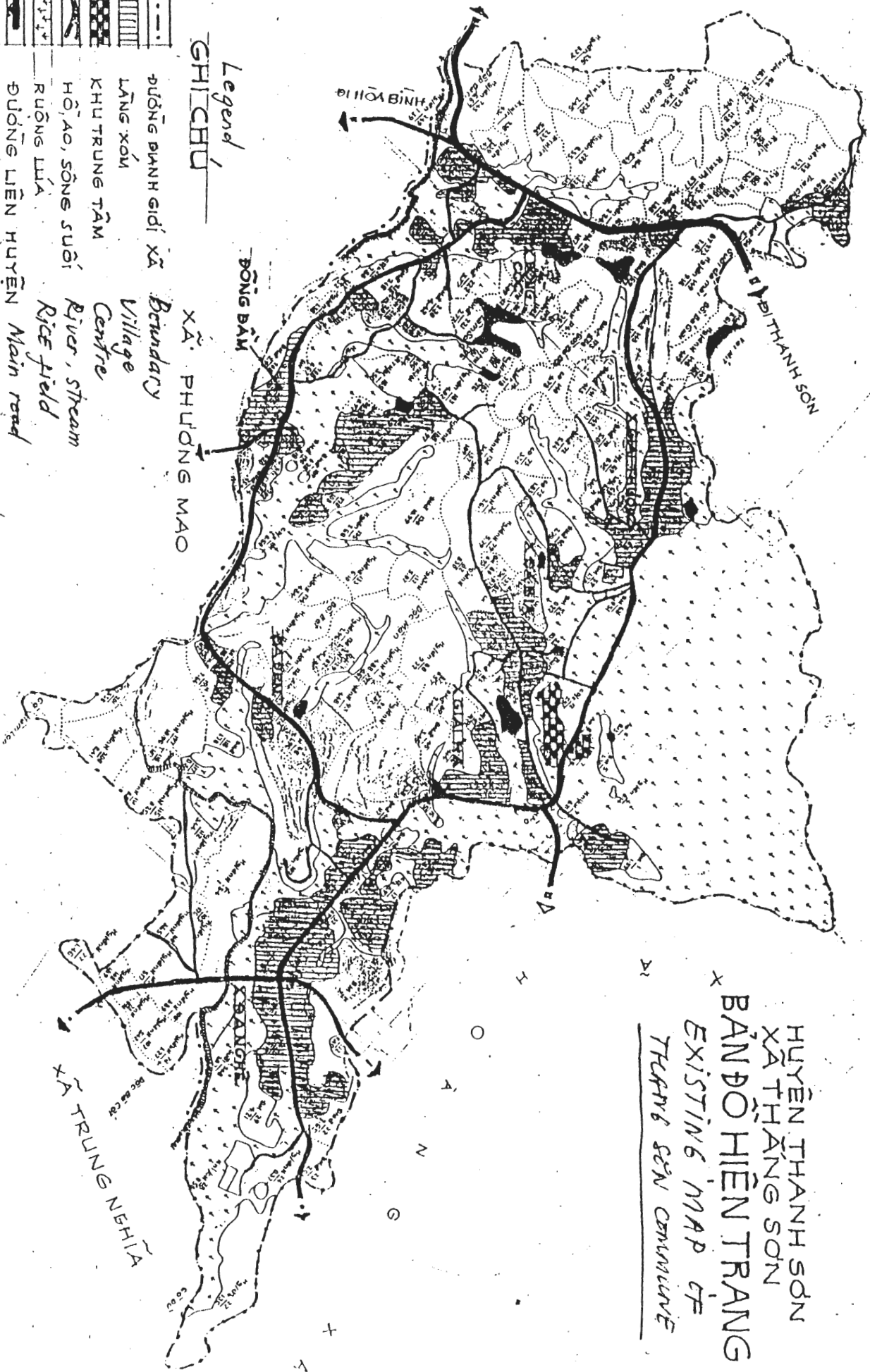
- Total population 2.320 of which male: 1.202
female: 1.118

XÃ HƯƠNG CĂN



Legend
GHICHU

ĐƯỜNG BIÊN GIỚI XÃ Village Boundary
 LÃNG XÃM Village Centre
 KHU TRUNG TÂM Centre
 HỒ, ĐÀO, SÔNG, SUỐI River, stream
 RUỘNG Lúa Rice field
 ĐƯỜNG LIÊN HUYỆN Main road
 ĐƯỜNG LIÊN XÃ inter-village road
 ĐƯỜNG LÃNG XÃ inner village road
 GIỚI GIỚI CÂY TRỒNG cultivated land classified



HUYỆN THÀNH SƠN
 XÃ THẠNH SƠN
 BẢN ĐỒ HIỆN TRẠNG
 EXISTING MAP OF
 HUANG CĂN COMMUNE

- Muong minority takes up 90% total population
- Kinh 10% total population

+ Age structure:

1 - 16 years old	546	persons	23,5%
. Working age (16 - 55 and 60)	1.544	—	66,5%
> 60	230	—	10%
. Natural population growth rate:			1,9%

+ Labour force:

. Total main labour:	1348	persons	
of which:			
- In agricultural sector:	874	persons	65%
- In service sector	: 21	—	1,5%
- Surplus:	450	—	33,5%

2. Economic development:

2.1. main activities:

100% people in commune involved to agricultural production, mainly growing paddy and other sub-crop tree like potato, maize, cassava... but the cultivated land limited with 2,14 sao/person by average. Rice growing land is 1,7 sao person by average only.

With negative irrigation (no irrigation work) the rice productivity is low, with 1,6 ton/ha by average, maximum 2,1 ton/ha. These lead people's life piled with difficulties.

Beside agricultural production, people have been used hilly land for forestry plantation, but only 21% hilly land available planted with industrial trees. Almost household give investment for cattle-poultry breeding (ox, buffalo, pig, chicken...) and gardening to have more income.

2.2. Family income:

In general, family income is low. Income from food (rice equivalent) in 1990 as follow (classified in to group)

Household:

- Group 1 :	220	kg/person/year
- Group 2 :	251	—
- Group 3 :	283	—
- Group 4 :	358	—

Income from gardening:

Household - Group 1
- Group 2
- Group 3
- Group 4

Income on the whole commune:

Household	- Lack of food (group 1-2)	60%
	- Quite enough	34%
	- Having accumulation	6%

2.3. Commune economy:

There are 3 agricultural cooperatives in the commune, including

- Lam Son cooperative with 107 households, divided into 2 groups

Group 1: Dong Dam village with 27 households

Group 2: Dong Cot village with 80 households

- Lien Thang cooperative with 238 households, divided into 4 groups

Group 1: Giai Thuong village with 88 households

Group 2: Da bin village with 45 -----

Group 3: Gieng Ong ----- 28 -----

Group 4: Hai ha ----- 77 -----

- Da Nghe cooperative with 107 households, divided into 2 groups

Group 1: Da Nghe 1 57 -----

Group 2: ----- 2 50 -----

There is not any infrastructure work for agricultural production, only a small reservoir in northern of commune has been used with water flow itself for watering a little cultivated land

3. Human settlements

3.1. Traditional villages:

There are 8 villages in commune, villages scattered located with population density of 263 person/km². Total village area is 153 ha.

The family plot is 3384 m² on average (including sub-contract garden) thus households have land to develop their income from gardening and cattle, poultry breeding.

Total villages take 196,29 ha, main road and village road joined villages together and to the commune centre.

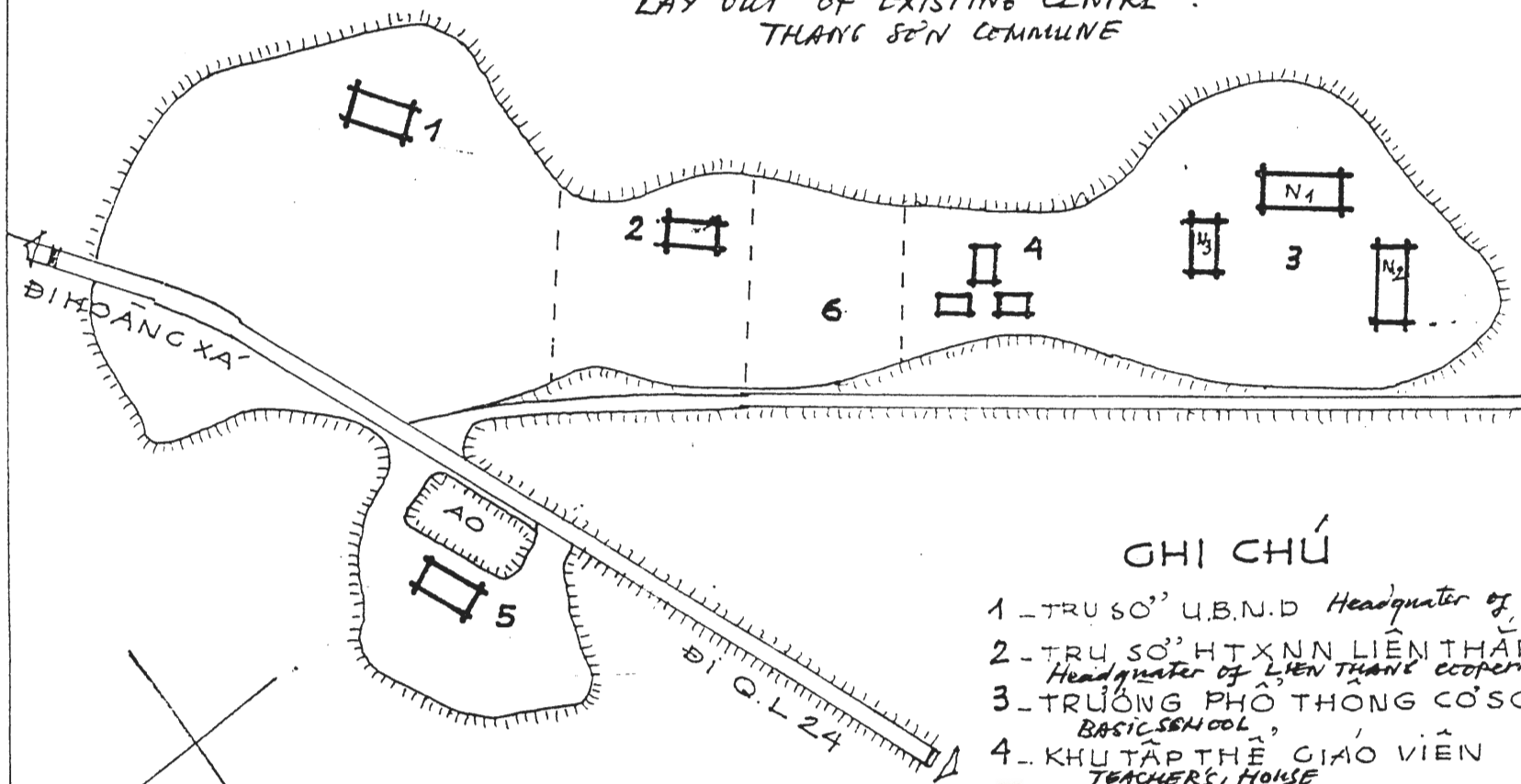
Commune centre is situated along main road with the area of 2,5 - 2,8 ha. There are basic school, headquarter of CPC, clinic and headquarter of agricultural cooperative (see the existing lay-out map of the centre)

3.2. Public facilities:

3.2.1. School:

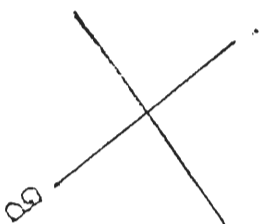
Commune has one basic school in commune centre. The school area is 1 ha (including teacher's house, headquarter of direction and school garden).

XÃ THẮNG SƠN - H. THANH SƠN
 HIỆN TRẠNG KHU TRUNG TÂM
 LAY OUT OF EXISTING CENTRE
 THẮNG SƠN COMMUNE



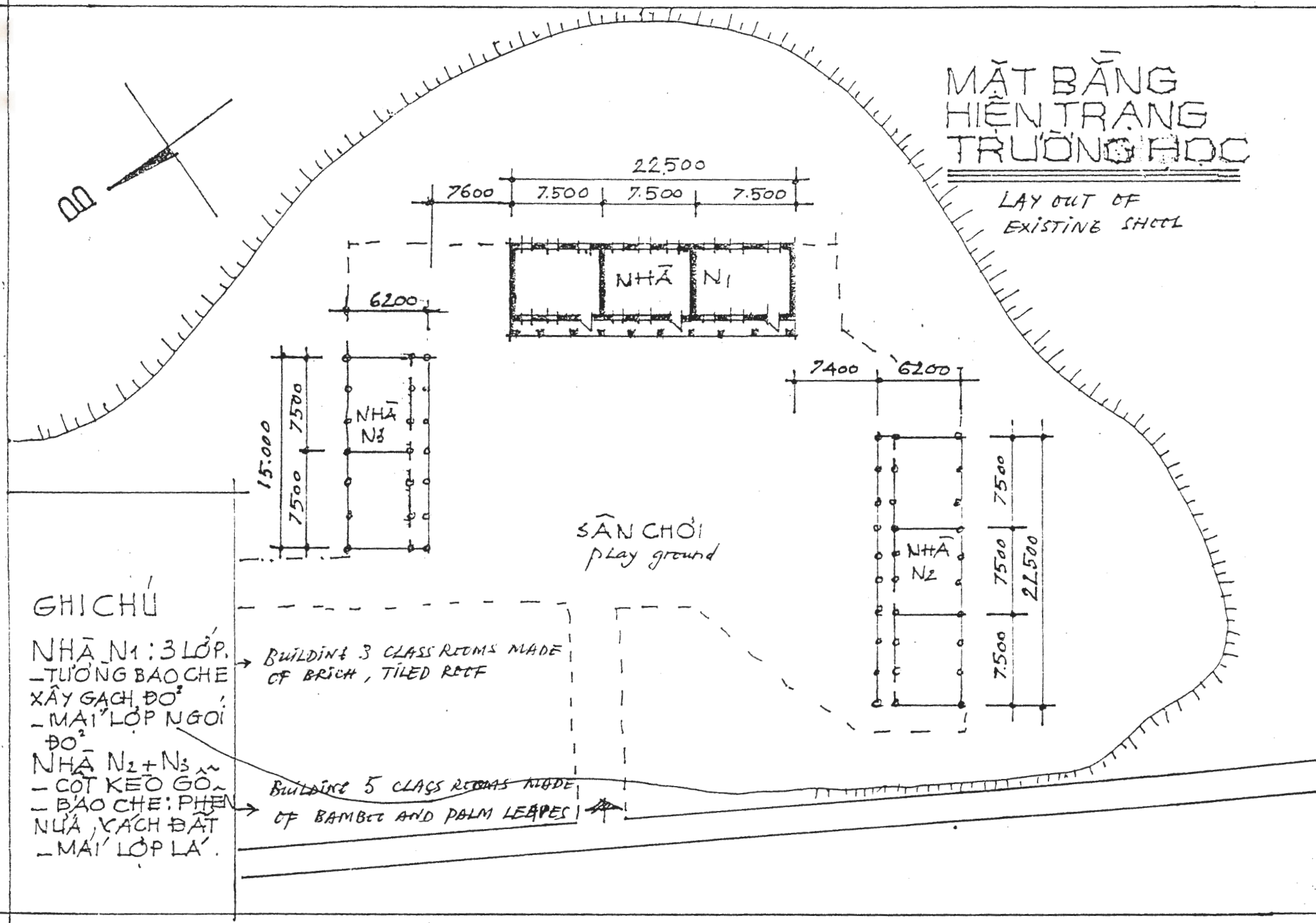
GHI CHÚ

- 1 - TRU SỞ' U.B.N.D *Headquarter of CPC*
- 2 - TRU SỞ' HT XNN LIÊN THẮNG
Headquarter of LIEN THANG COOPERATIVE
- 3 - TRƯỜNG PHỔ THÔNG CƠ SỞ
BASIC SCHOOL
- 4 - KHU TẬP THỂ GIÁO VIÊN
TEACHERS' HOUSE
- 5 - TRẠM XÁ CLINIC
- 6 - KHU ĐẤT TRƯỜNG HỌC CŨ
THE AREA FOR EXPENTION OF THE SCHOOL



MẶT BẰNG HIỆN TRẠNG TRƯỜNG HỌC

LAY OUT OF
EXISTING SCHOOL



GHI CHÚ

- NHÀ N1: 3 LỚP.
- TƯỜNG BAO CHE
- XÂY GẠCH ĐỎ
- Mái LỚP NGÔI ĐỎ
- NHÀ N2 + N3
- CỘT KÉO GỖ
- BAO CHE: PHÊN NÚA, VÁCH ĐÁT
- Mái LỚP LÁ

BUILDING 3 CLASS ROOMS MADE OF BRICK, TILED ROOF

BUILDING 5 CLASS ROOMS MADE OF BAMBOO AND PALM LEAVES

There are 3 building with 8 classrooms for 469 pupils from 1st grade to 9th grade, the class being held in 2 shifts (morning and afternoon). Total of the construction area is 410 m².

1st building (4 grade), the construction area is 168 m². The building was built in 1973, to day it is being deteriorated (no door and window), walls being cracked

2nd building with 3 classrooms and 3rd building with 2 classrooms those are temporarily building with wooden structure, roofing structure make of bamboo and walls made of earth and bamboo. The construction area is 249m².

At the present, these 2 building deteriorated, although before any new learning year the commune repair school but it is still not served pupil with the required conditions (lack of light, cold in winter, noising between classes). That situation make big influence to studying quality, sanitation and pupil's health

3.2.2. Clinic:

Clinic was built in 1968, building is in fourth grade with 5 compartments 9103 m²) 1 compartment for obstetrics, 3 compartment for treatment, 1 compartment for selling medicines.

Clinic located main road of commune, it is convenient for transport. To day the clinic being deteriorated (the roof leaks badly, one part of roof structure broken down by termites), besides the foundation is low so it is high humidity and bad sanitation condition. Clinic now is temporarily closed and it is waiting for investment to repair and upgrade.

In this situation, the commune still organize taking care people's health directly in families.

3.2.3. commune people's committee headquarter:

It was built in 1987 with construction area 103 m² (building of fourth grade), it is quite good quality but needed to investment for:

- Flooring
- Construction of fence around and gate

3.3. Housing

Long ago Muong ethnic settled up in the commune and now it takes 90% total population, they have been influenced King's life style thus Muong's house also changed. Before Muong people lived in house on poles popularly, today almost households have house on the ground, a little of households have their house on poles.

Houses classified in to 3 main kinds:

- + On pole house with 3 compartments and kitchen in the house ,wooden structure,roofed with palm leaves,wooden floor and the walls made of wood or bamboo.

- + House on the ground:

- _ Traditional house:It is popular to see the house with 3 or 5 compartments (3 compartment and 2 annexes), 2 compartments to be located in two ends of the house for sleeping and storage food and valued things.Other compartments used for meeting,receptions...

Main structure used wood.Roofing structure used wood and bamboo,palm leave roof, walls made of bamboo and earth, foundation made of earth.

- _ Morden houses : Some families have their new house built with fire brick, roofed with tiles and wooden structure.

*Thang son
Map.*

3.4. BUILDING MATERIALS AND TECHNOLOGIES

Thang son has very limited of building material resources, most of them are the product of forest such as: wood, bamboo, palm leaves, the others like burned bricks or papains have poor quality as well as quantity.

3.4.1. Wood are available in the commune, houses with wooden frames are very common, the carpenters in the commune are also builders can easily erect houses, 100% existing houses in the commune has roof wooden structures.

There are two kinds of wood: hard wood from the forest and soft wood from gardens, roof structures can made by hard wood or soft wood and the durability depends on it from 15 to 30 years, with the degrading of forest the quantity of wood decreases day by day and the price fastly increase.

Wood can be used in timber (10 x 35 cm; 1.5 x 35cm) or origine shape (d= 20-25cm)

3.4.2. Bamboo are available and very popular in the commune. Bamboo are used for roof structures as well as for walls. the villagers can easily build their houses with bamboo sheets or torchiss walls. Houses built by wood and bamboo although very cheap and fastly made but last shortly, only 5-10 years and require maintenance often. Moreover, the fire dangerous is always a big problems.

Bamboo houses are majority in the commune with 90% existing houses.

3.4.3. Brick and lime:

There is a private kiln for production brick and lime with capacity 5000 pieces/kiln or 5000kg lime/kiln

The quality of brick is poor for raw soil unsuitable with burned brick.

Size of brick: 5 x 9 x 19cm.

Papain are produced by some families for their own houses, using wast from brick and lime kiln, the quantity is very limited but the quality is strong enough for load-bearing wall.

Lime is only produce from orders, not for market. Lime stone bough from outside of the commune.

3.4.4. Roof covering materials.

- Palm leaves: Thang son is located on a palm forest areas, 90% houses in the commune are covered by palm leaves. Palm leave roofing can last 10-15 years depends on the thick of covering.

The people has tendency to decrease the palm plantation for uneffectively of the trees at the same time they prefer tiles for their houses.

- Fired clay tiles and cement tiles are available from the market of district or neighbour communes.

4.5. Others.

a/ Soil in the commune is a kind of laterite, the result of observation and initial analysis shown that the composition of soil sample is suitable with unburned brick (stabilized soil block or rammed earth wall.)

Sand and silk	82- 85%
Clay	18- 15%

b/ Cement: Cement is available in the market, there are two kinds of cement: national cement (Bimson or Hoang thach) and provincial cement (Thanh ba-Vinh phu). The people prefer use national cement for its high quality.

c/ Steel imported for construction is available on the market.

4.6. Construction cost:

Houese with wooden roof structures, bamboo frame, torchiss wall and palm leave covering	: 80.000-100.000 d/m2
Carpenter	: 10.000-15.000 d/m2.

4. Transportation

4.1. Landway net work

4.1.1 Preface: Thang Son commune consists of 8 sub hamlets covering an area of 8,8 km² available with inter provincial various roads to the rice fields, the existing roads are made in the forms of round about and fish-bone types and in general they are an swerved to the transportation needs of the commune and of the commune with surrounding communes in the production and living conditions of the people.

The existing roads were constructed with following 2 main structures.

- Earth filled Roads 36,100 m long, 1m - 5m wide
- Earth, with Rock filled roads, well tamped: 1,500 m long, 6m wide

4.1.2 Evaluation

1. Road line network

Since Thang Son commune located on Middle land and mountainous area so it's Road network also has it's own characters of highly winding mountain tracks (winding coefficient of 0=1,3) and highly sloped (iMax = 12 - 15%). A number of Road parts are flooded in wet season and not provided with bridges and sewerage crossing the streams yet.

If the above short comings are solved the existing Road network meet the transportation needs of the commune and between the commune and others. Density of Hamlet Road network is = 1,8 km/km²

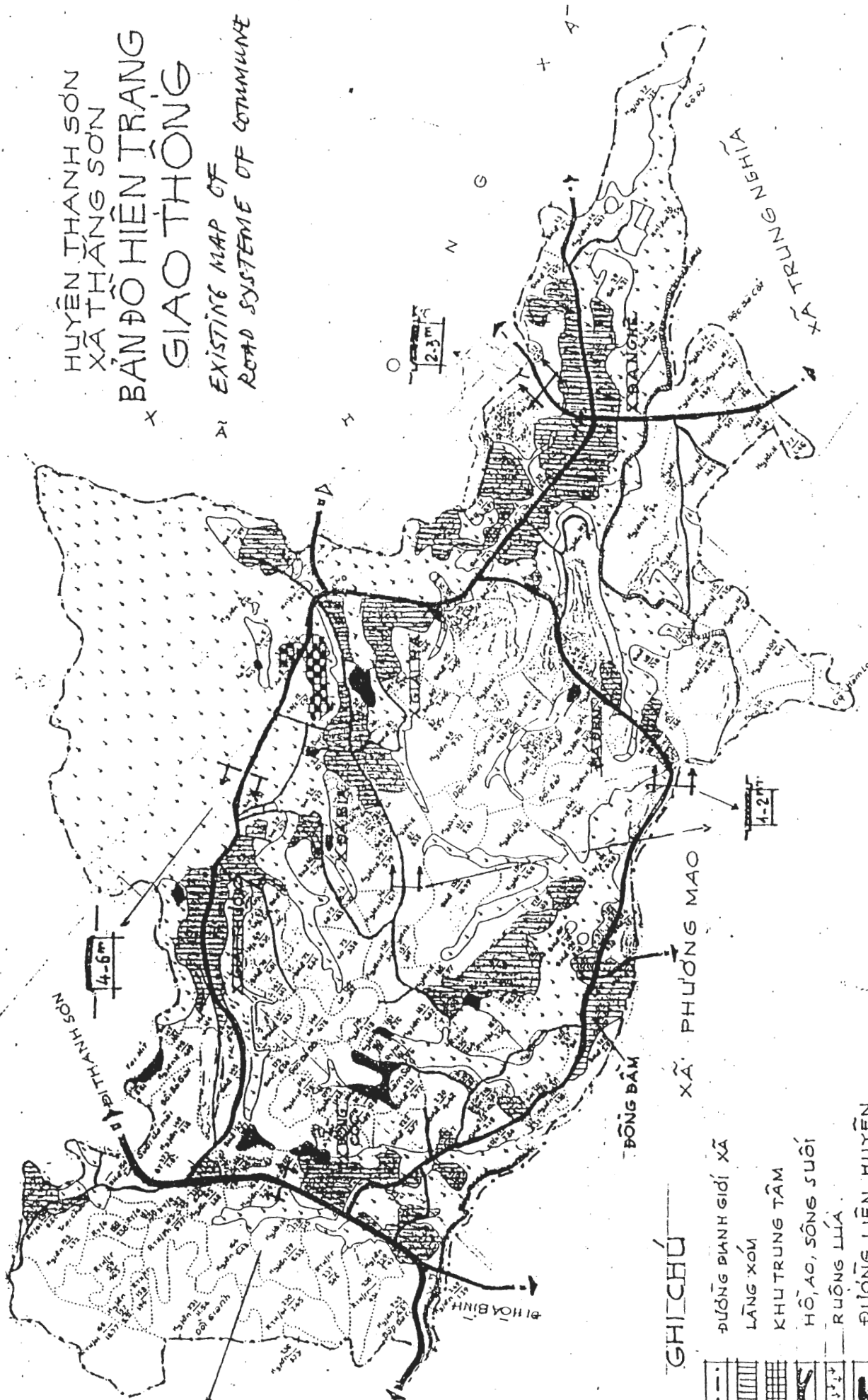
2. Road quality

- 90% of existing roads are earth filled dusty in dry season and slushy in wet season, moreover they are full of potholes in convenient and unsafe for all transportation facilities.
- Road surface is so narrow: 1-2m not enough space for even 1 vehicle passing through (86% of existing Road)
- Elevation of some Road parts along the cultivated land is low so they are normally flooded during the wet season making the roads rapidly deteriorated.
- A number of roads parts crossing streams and arroyas are not provided with bridges and sewer gates so no transport possibility available there yet.
- Some main road limes as inter provincial and commune roads as Da Mao-Hoang Sa, Hoang Xa-Trung nghia are still earth filled roads and not yet provided with bridge and sewer gates.

3. General Remarks

In general the Thang Son road network in rather adequate interm of number but not yet sufficient interm of quality and the development scheme can be stressed on upgrading the existing road network in addition with the provision of bridges and sewer gates.

HUYỆN THANH SƠN
 XÃ THĂNG SƠN
 BẢN ĐỒ HIỆN TRẠNG
 GIAO THÔNG
 EXISTING MAP OF
 ROAD SYSTEM OF COMMUNE



GHI CHÚ

- ĐƯỜNG PHẠNG GIỚI XÃ
- LÀNG XÓM
- KHU TRUNG TÂM
- HỒ, AO, SÔNG SÙI
- RỪNG LÚA
- ĐƯỜNG LIÊN HUYỆN
- ĐƯỜNG LIÊN XÃ
- ĐƯỜNG LÀNG XÓM
- GIANH GIỚI CÂY TRỒNG



4-6m

5-6m

2-3m

1-2m

4.2. transportation facilities

4.2.1 Goods for transportation

Having no statistic figures so the quantity of goods transported in and out of the commune can not be identified and only the names of the goods are recorded:

a/ Incomminf goods

- Building materials: Cement, iron, rock, brick and tiles
- Consumer goods
- Fuels
- Fertilizers

b/ Out going googs:

- Forest produces, tunber , bamboo, Nèhouzeaua , paper materials
- Food stuffs

These goods are transported by landway

4.2.2 transportation facilities are mobilized here as

- Pack-bicycle: mainly used by individuals at short transportation distances
- handcart: as above purpose
- Buffalo and cow cart: for good conveyance mainly building materials and cereals .
- Various types of lorries: for good transportation under here list of available transportation facilities owned by the individuals of the commune:
- Pack bicycle: 300 units
- Hand cart: No
- Buffalo and cow cart: 45 units
- Motor cycles: 9 units
- Small truck: No
- Lorry: No

4.2.3. Transportation density

- No statistic figures available but from the counting at selected transportation node of the commune road, the transportation density in 12 hours can be listed below (from 6a.m to 6p.m)

- Lorries 6 units bicycles: 100 units
- Motor cycles: 15 units walkers: 2000 times
- Cow cart: 20 units

4.3. Construction cost

Material for road construction

- Asphalt.
- Rock: 20,000 d/m3
- Gravel: 50,000 d/m3
- Yellow sand: 30,000 d/m3
- Cement P.400: 650,000 d/ton
- Iron bar : 400,000 d/ton
- Earth filled: 5,000 d/m3

Thang Son commune is available with a lot of earth for road construction and it is cheaper than other areas and cost for road construction as:

- Earth filling: 5,000 d/m³
- Road with 1 layer of earth Rock fill: 12 cm thick: 3,600 d/m²
- Road with 2 layers of earth and Rock fill: (Rock layer 25cm thick + earth layer 12 cm thick): 18,000 d.m²

4.3.1 transportation costs

Depending on types of transportation facilities, goods, distances, the transportation costs are made:

* Lorry

Type of Road	1	3	5
Km	cost D/T km		
1			
10			
20			
50			
100			

* Cowcart

Type of Road	1	2	3
Km	cost D/T km		
< 1,5			
2			
> 3			

* Improved handcart

Type of Road	1	2	3
Km	cost D/T km		
< 1,5			
2			
> 3			

Transportation analysis

o	Type of Trans..	Number (in units)	Trans.. distance (km)	Investment cost	Trans.. capacity	Speed km/h	Trans. unit cost
1	By man		Short distance 1 km		50 kg	4	
2	Bicycle	300	3-5 km	200,000	100 kg	5	
3	Improved hand cart	No	Short distance 1 km	300,000	250 kg	4	
4	Cow cart	45		1500000	500 kg	4	
5	Small truck	No	>10 km	20000000	1500 kg	10	
6	lorry	No	>10 km	50000000	5000 kg	30	
7	Motor cycle	9	>10 km	4000000	150 kg	10	

4.4. Recommendations

The present Road network at Thang Son is being used to link commune centre to various hamlets and surrounding communes. However the quality of network is very bad, many are earth filled roads with narrow surface and no bridges and sewer gates is not available. That's why the transportation condition is not available at all seasons and serviceable at all rites and places.

to ensure the production activities as well as increasing the material and intellectual life of the people, the early rehabilitation and upgrading the whole existing road network is strongly requested.

4.5 Principle guideline for development the road network

- Maintaining the existing roads, no new road construction needed.
- Rehabilitation the existing roads according to the actual needs as big Roads for commune, hamlet and inter provincial smaller Roads to production bases and to sub hamlets and houses.
- Organizing the implementation of the investment as plan requirements

4.6. Development plan for Road network at Thang Son commune

- Main Road of the commune is Da Mai-Hoang Xa 3,2 km long width of Road surface 4m and width of road's foot 6m.
- Inter hamlet Roads as: Xe hoa, Dong luan, Hoang Xa-Trung Nghia, Lam son -Giai Thuong, Xe Hoa. Total length of the Roads: 11,4 km with the width the Road surface: 3m and road foot 5m
- Inter district and inter commune is road Da mai-Dong Coc with 1,5 km long, Road surface: 6m and road foot

+ GHI CHÚ

TỈNH LỘ ĐỘI NƠM

TRỤC ĐƯỜNG XÃ

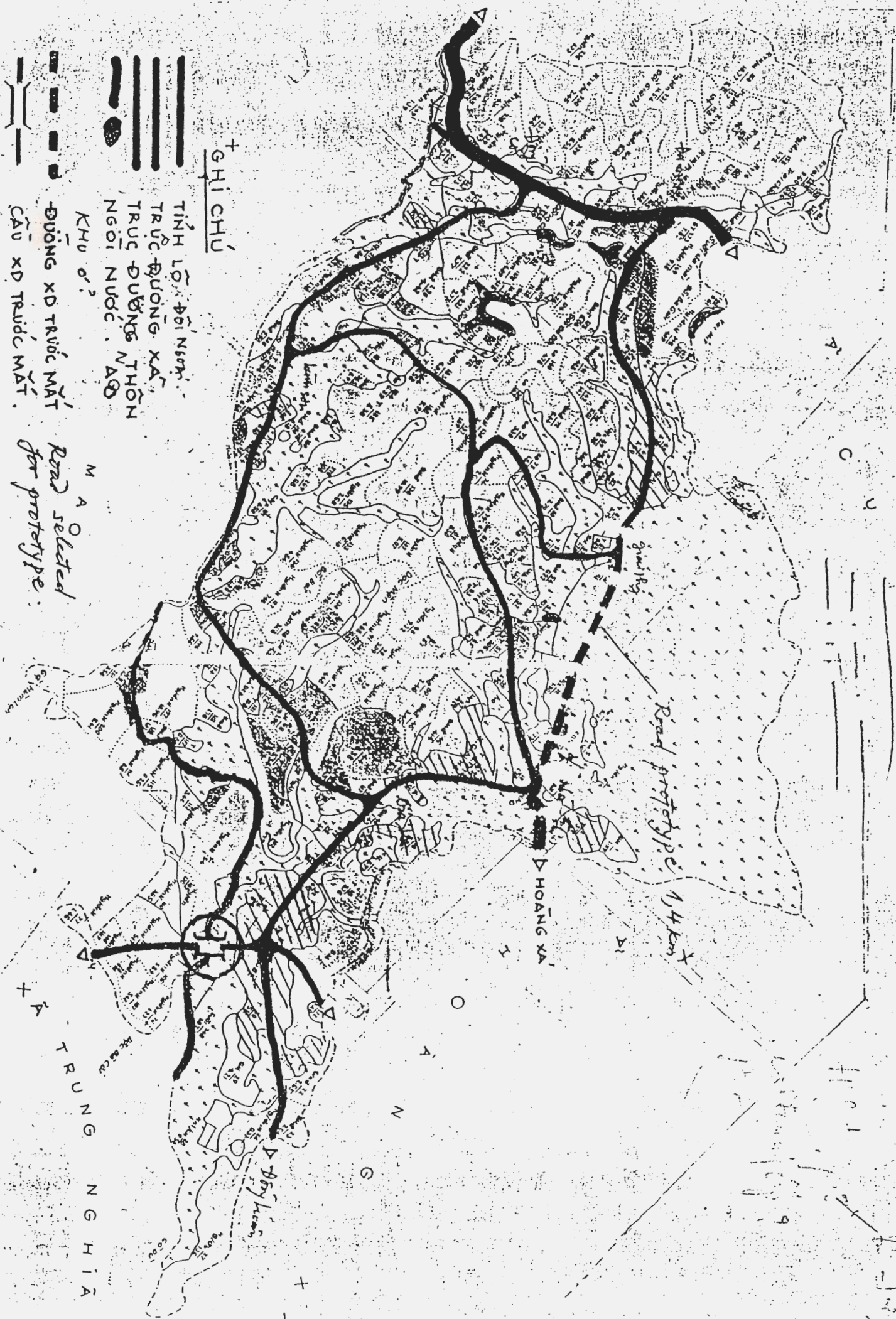
NGÔI NƯỚC NÀO

KHU Ơ?

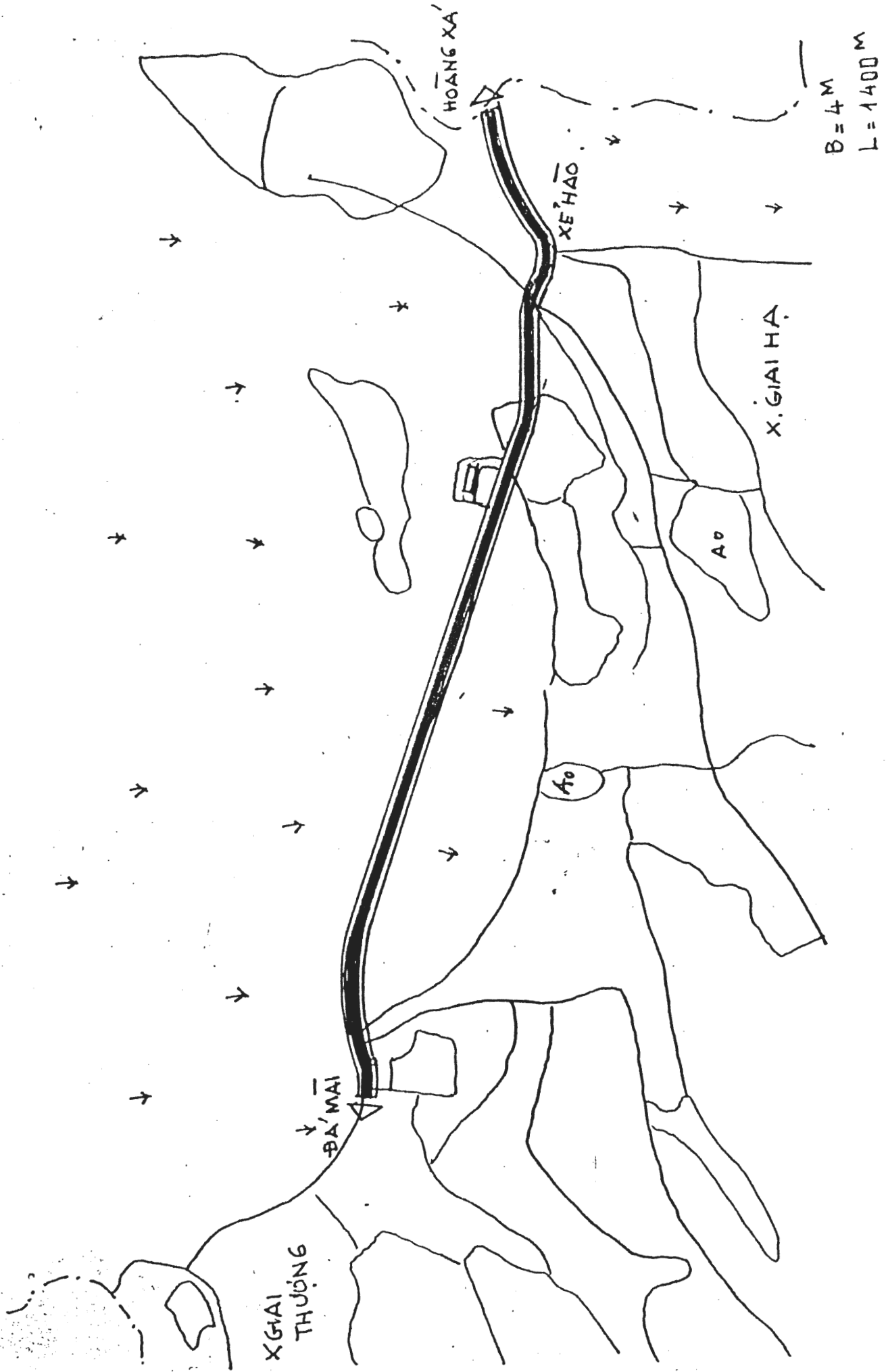
ĐƯỜNG XD TRƯỚC MẶT

CẦU XD TRƯỚC MẶT

M A
○
Road selected for prototype



ĐƯỜNG ĐÀ MẠI - HOÀNG XÁ



8m.

- Road within the hamlets and roads to rice fields with total length of 21,5 km, road surface 2m5 and road foot 3m.

4.7. Construction quantity and estimated cost for Thang Son road network.

- New road surface: 99,600 m²
- Earth filling for higher and bigger foot of the roads 53,000 m³
- Construction 1 bridge and 3 big sewer gates

* Estimated cost:

- New road surface: 358,560,000 d
- Road foot: 176,500,000 d
- Bridge, sewer gates: 100,000,000 d

Total	634,060,000 d
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5. Water supply and sanitation at Thang Son commune-Thanh Son district-Vinh Phu province

5.1. General description

1/ Preface: belong to Thanh Son district, Vinh Phu province, Thang Son is commune located between the midland and mountain so it's terrain is not flat, much hills and less fields with sandy unfertilized soil, thinly populated, severe weather very hot in summer and very cold in winter with hoarfrost.

With above characters so the water resource served for domestic use is limited both in quantity and quality especially in dry season and that living problem to living condition of the people.

2/ Water supply

The main water resource used for daily drinking and cleaning of the commune is private shallow wells and village water well (public water well) from survey it is noted that there are 361 private water wells in the whole commune/452 households equal to 79,42%. average depth of the wells vary from 8-17m and 216 brick contorted wells/361 existing wells equal to 60% of the total.

Water quantity of shallow wells in wet season is potential, water level available at 5-10m from water ground level but in dry season, normally the water limited (water level available at 8m-17m from ground level of the wells). Village well is used to supply water for the poor families who have low income, unable to build private well, the village well is small in surface and shallow in depth (1-3m) so it's storage capacity limited in wet season, the village well because of contamination intrusion and very few water available in dry season.

From water analysis with water samples taken from commune general school it is concluded that the water quality of shallow wells is sufficient for domestic use, since almost the chemical contents of water samples within the allowable limits of healths Ministry's standard (the water analytical sheets is attached).

3/ Sanitation

Due to the traditional habits and living way of the minority so the existing sanitation facility here is still very backward and obsoleted, the bucket latrine is popular sanitation facility, the double vault compost latrine infiltration latrine not yet applicable here. With such existing sanitation facility, the hygienic environment ensuring the proper condition for the living condition of each household and the whole commune is not available.

5.2. Proposed solutions

1/ Solution:

As above description, two water resources (private shallow wells and village public well) are being use by the commune for drinking and washing purposes.

a- Private shallow wells: In general the water quality of the shallow wells sufficient except the highly deep. For getting the water the people has to use hand pulling bucket with rope or bamboo rod, with these difficult for those families that have old people and small children to use.

a- Villages public well: Water quantity of this well is different at different seasons, potential in wet season but few in dry season. Moreover the quality is not as good as that of shallow wells so the application of treatment process for this water resource with a view improving water supply for Da Nghe hamlet is strongly requested apart from this effort, the encouragement of building private rain water collection tank with storage capacity of w= 3-5 m3 is also recommended.

2- Recommendation

From site Servey and evaluation on the present condition of water supply and sanitation at Thang Son commune, the following recommendations are made:

1. Giving instruction on the building of simple treatment facility with water resource from village public well for Da nghe hamlet.
2. Introduction and application of pulley for getting the water from well (firstly select the commune then
3. Intro duction and instruction on the building of

double compost latrine for the commune (multiply to other areas letter on).

5. Conclusion

From actual situation of water supply and sanitation as above detailed explain, the improvement these activities to give better living condition for the rural areas especially for the mountainous rural areas is extremely necessary. That's why this task has it's urgent significant as well as social and protection purposes with a view to help the mountainous people improving the living condition and getting closer the advanced sciences and techniques.

5.5. Energy

1. For burning

1.1 Resource: burning resource is rather potential in the commune as wood from garden, forest, hill, agriculture and industrial plants and straw from rice trees. wood is mostly used in daily cooking with the consumption of 4kg x 360 days = 1440 kg/capita/year

1.2. Type of burning devices traditional devices as iron tripod, brick tripod or earth made stove with 3 corners).

1.3. These above devices are used to cook foods for people and animals and some households use them for cooking wines and making business but just limiting a small number.

2. For lightning

Oil is used for lightning purpose by 100% commune people in the past as well as present and consumption for each household is 36 l/household/year and with the present with the cost, it is about 108,000 d/household/year.

since electricity supply'll not be able made available for the commune in the future so the improvement lightning material can be made from development of animal breeding in conjunction with the application of advanced sciences and technology to make full use of potential onsite materials

With the agriculture development policy-land given to the tillers and individual economic development, Almost 100% households engage in animal breeding as recorded that every household breeds from 1-2 buffalos or cows some with 4 buffalos + and 2-4 pigs/year

3. Solution for lightning purpose

making full use of material from animal breeding for increasement of lightning material through the pilot display of biogas tank then it's result'll be multiplied to the whole commune, in doing so on the one hand increasing material for

lightning and burning purposes and other hand improve the living condition of the people.

Inshort:

- Thang Son commune available with following potentialities

- 1/ Increasing from 1 rice crop to 2 rice crops per year in addition to development industrial plants (water resource available but need investment)
- 2/ Many uncultivated land not yet exploited forestry trees (224,3 ha not yet cultivated of which 150 ha borrowed by state owned plantation).
- 3/ labour force surplus 33,5% of total labour aged force has no job to do
- 4/ Potential with Earth from hill, mountain with sufficient physical characteristics for production of burnt bricks and unburnt bricks with these construction'll be made.
- 5/ Potential with input material for lightning material
 - * Existing contradiction :
 - 1. Big contradiction existing at the commune is the commune is available with a lot of land, water resource, labour force but it is very poor, the people's living standard is so much low (60% of the household is in permanent shortage of food).
 - 2. Surplus labour force and the commune available with technical staff, natural resources but not yet development with building material production (burnt bricks, unburnt bricks) for the replacement of bamboo, neohouzeaua and leaves for housing construction.

To gradually improve the housing quality for the people production of agricultural produces also should be paid proper attention

3. Living condition of the people is still low because of low investment and application of advanced sciences technology

7. Selection and setting the priorities of proposed objectives

The project is to solve the outstanding contradictions and problems available at Thang Son commune by way of application effective increasing the material and intellectual life of rural people.

Priority option

After the actual site survey in conjunction with the study of feasibility conditions existing at the commune, application

of effective solutions recommended by the project, efforts made by the commune and provincial authorities it is

recommended that the attention should be paid to the solving of existing and main problems available at Thang Son commune. Priority should be given firstly to the up grading social and technical infrastructures namely as follows.

1. Construction the general school consisting of 8 rooms of which for classrooms and 1 for school staff.
2. Upgrading 1 commune road part covering 1,4 km-9,5 km distance (from the end of Giai Thuong subhamlet through commune centre to Hoang xai commune border).
3. Development the credit activities for the development of family economic development (family garden, forestry planting and animal breeding)

* At family level: display an pilot activities of

1. Improving devises for geting water (either by pulley or winch)
2. Improved cooking stove (all burning material can be used)
3. construction Biogas tank for lighting material.

RESOURCES AND CAPACITY MOBILIZATION IN THANG SON COMMUNE

Level	Type	Social	Natural	Built environment	Capital installation	Human resources	Economic resource
Family		Mutual help				-Family size: 5-6 person -Main labour/family 2-3	-Family with sub-contract -Forestry plantation (21% forestry plantation with sub-contract) -Almost household having large plot for gardening
Rick				-House with brick wall tiled roof -Water tank latrine, well -Good furniture and electric appliances	- Ox cart -Rice loosing machine	-Skilled labour .Farming .Gardening .Forestry plantation .Catli breeding	saving (d/year) 1,000,000 - 2,000,000 d
Medium				-Almost houses with earth wall palm leave roof. -Well, simple latrine -No water tank	-Ox cart (same house.) -Rice loosing machine(---)		200,000-300,000 d
Poor				-House with bamboo wattle wall, palm leave roof -Simple latrine -Some family having earth well - water tank		-Skilled labour in farming but looking of labour and investment for production	No saving
Commune		-commune management board in charge of all collective works -Young and woman association support all activities -Support from district and province	-Water resources for irrigation -Hill land for plantation -Earth for building material -Available of wood bamboo...	-School deterioriating (deteriorating) -Clinic deterioriating (old building) -Headquarter of commune people's committee -Roads (bad quality)	-Dam -Storages (old building)	Local leader's capacity -full responsible and active -Having capacity in management and organization of implementation the collective works	-Budget: 15% budget for capital construction -Contri from district and province
Conclusion on local capacity		-Mutural help -Democracy free -Support from associations and district province	-hill land for forestry plantation -Earth for building material	-Enough public facility, but low quality	-No irrigation -Lack of equipment for production and processing food	-Local leader's capacity for mobilization people's participation in collective activities	-Low income from farming - Low budget and unfixed -contribution from district and province

I
BASIC NEEDS/MAIN PROBLEMS IN THANG SON COMMUNE

To develop level	Living Condition	Public facilities	Family in come	Collective Economy
Family level	<ul style="list-style-type: none"> -Lack of food(60% families) -Water with bad quality lack of facility to take out water, -Lack of domestic light 		<ul style="list-style-type: none"> - Lack of capital for production investment: new sheedling, garden-foresty plantation, livestock breeding -Credit for Small investment not availbe 	
Village level		<ul style="list-style-type: none"> -Intervillage road system is narrow rough, flooded in rainy season. 		
Commune level		<ul style="list-style-type: none"> -School deteriorated -Commune road bad quality, low foundation road cover destroyed in rainy season -Intercommune road cross the stream without bridge and sewers. -Commune clinic depraved. 		<ul style="list-style-type: none"> -Difficulties for investment and repairing the small dams -difficulties for investment of irrigation construction serving forrestry economic development and rice production -Difficulties for forestry management and exploitation
Priorities	<ul style="list-style-type: none"> - Clean water supply and water abtruction -Domestic light and sanitation -Housing with rammed earth brick 	<ul style="list-style-type: none"> - New school construction -Upgrading 1-2 km of commune road -Construction of bridge, sewer. -Upgrading commune clinic 	-Credit system	<ul style="list-style-type: none"> -Repair PhaiMit dam -Organization of forestry (hills) management and exploitation

XÁC ĐỊNH: CÁC NHU CẦU CƠ BẢN

CÁC VẤN ĐỀ CHỦ YẾU Ở XÃ THẠNG SƠN

:Phát triển: Điều kiện : Phục vụ : Thu nhập : Kinh tế
:đôi tượng : sống : công cộng : gia đình : tập thể

:
: Gia đình : -Thiếu ăn : -Thiếu vốn đầu :
:(60% gia đình: : tư sản xuất để :
: -Chất lượng : : đầu tư giống mới:
: : nước kémthiếu: : phát triển vườn :
: dụng cụ lấy : : gia đình, trồng :
: ;nước : : rừng, chăn nuôi :
: -Thiếu năng : : -Không có tín :
: lượng chiếu : : dụng cho các hộ :
: sáng : : nông dân vay :

: Làng xóm : ;Đường liên : :
: : : thôn chật hẹp : :
: : : xấu, bị ngập : :
: : : lụt vào mùamưa: :

: Xã : : -Trường học : : -Gặp khó khăn
: : : xuống cấp : : để đầu tư sửa
: : : -Đường trục xã: : chữa đập thủy
: : : xấu, nền thấp, : : lợi.
: : : mặt đường tồi : : -Gặp khó khăn
; : : bị phá hủy vào: : trong đầu tư
: : : mùa mưa. : : xây dựng hệ
: : : -Đường liên xã: : thống thủy lợi
: : : đi qua suối, : : phục vụ trồng
: : : không có cầu : : rừng và phát
: : : và cống : : triển sản xuất
: : : -Trạm xã hủ : : nông nghiệp.
: : : hỏng nặng : : -Gặp khó khăn
: : ; : : trong quản lí
: : : : : và khai thác
: : : : : rừng.

: Các vấn đề: -Cung cấp : -Xây dựng : -Hệ thống tín : -Sửa chữa đập
: ưu tiên : nước sạch và : trường học mới: dụng : phai mít
: : dụng cụ lấy : -Cải tạo đường: : -Tổ chức quản
: : nước. : trục xã. : : lý và khai thác
: : -Chiếu sáng : -Xây dựng cầu : : rừng.
: : và vệ sinh : cống : :
: : gia đình : -Cải tạo trạm : :
: : -Xây dựng và : xá xã : :
: : sửa chữa nhà : :
: : bằng gạch đất:

CAC NGUON TIEM NANG VA KHA NANG HUY ĐONG
O XA THANG SON

: \ Lãnh	: Xã hội	: Đ/kiện	: Môi trường XD	: Lắp đặt	: Tiềm năng	: Tiềm năng
: \ vực:	: tự nhiên:	:	:	:	: Con người	: Kinh tế
: đôi \	:	:	:	:	:	:
: tượng \	:	:	:	:	:	:
: Gia	: Giúp đỡ:	:	:	:	: +Qui mô gia	: +Canh tác lúa
: đình	: lẫn	:	:	:	: đình: 5-7 ng	: theo hợp đồng
:	: nhau	:	:	:	: +Lao động	: +Trồng rừng
:	:	:	:	:	: chính/g.đình:	: (21% đất
:	:	:	:	:	: 2-3 người	: rừng đã được
:	:	:	:	:	:	: trồng theo
:	:	:	:	:	:	: hợp đồng)
:	:	:	:	:	:	: +Hầu hết các
:	:	:	:	:	:	: hộ có vườn
:	:	:	:	:	:	: lớn để phát
:	:	:	:	:	:	: triển kinh
:	:	:	:	:	:	: tế vườn
: Hộ	:	:	: +Nhà gạch mái:	: +Xe bò	: +Lao động có:	: -Tiết kiệm
: khá	:	:	: ngói	: kéo	: kỹ năng cao	: 1-2 triệu
:	:	:	: +Có giếng, bể:	: +Máy	: về trồng lúa:	: đồng/năm
:	:	:	: nước, xí WC	: tuốt lúa:	: làm vườn,	:
:	:	:	: ; +Trang bị đồ	: ;	: trồng rừng	:
:	:	:	: ; gỗ khá tốt và;	:	:	:
:	:	:	: có thiết bị	:	:	:
:	:	:	: điện tử	:	:	:
:	:	:	: (Radio, cát	:	:	:
:	:	:	: sét, ti vi)	:	:	:
: Hộ	:	:	: +Hầu hết nhà	: +Xe bò	:	: -Tiết kiệm
: trung	:	:	: ; ở bằng tường	: kéo (1 số:	:	: 200.000 -
: bình	:	:	: đất, mái lác	: ; (hộ có)	:	: 300.000 đ/n
:	:	:	: +Có giếng, xí:	: +Một số	:	:
:	:	:	: đơn giản	: ; hộ có	:	:
:	:	:	: +Không có bể	: ; máy tuốt:	:	:
:	:	:	: chứa nước	: ; lúa	:	:
: Hộ	:	:	: +Nhà tranh tre:	: Lao động có	:	: Không
: nghèo	:	:	: mái lá cọ	: ;	: kỹ năng cao	: có

:	:	:	:	:+Hồ xí đơn :	:	:về sản xuất :	tiết
:	:	:	:	:giản :	:	:nông nghiệp :	kiệm
;	:	:	:	:+Một số hộ có:	:	:những thiếu :	
:	:	:	:	:giếng đất :	:	:lao động và :	
:	:	:	:	:+Không có bể :	:	:thiếu vốn :	
;	:	:	:	:nước :	:	:đầu tư :	

;	Xã	:+Ban	:+Cống	:+Trường học	:+Đập	:+Khả năng	:+Ngân sách
:	:	:lãnh đạo:	:nước thủy đang xuống	:nước(hư	:của lãnh đạo:	:15% NS dành	
;	:	:xã lãnh:lợi	:cấp nặng	:hồng)	:địa phương	:cho XDCB	
:	:	:đạo mọi:+Có đất	:+Trạm xá đang:	+Kho	:+Trách nhiệm:	+Hỗ trợ của	
:	:	:h.động :trồng	:xuống cấp :	:	:cao và chủ	:tỉnh, huyện	
:	:	:ở xã :rừng	:+trụ sở UBND :	:	:động :		
:	:	:+Có sự	:+Có đất	:+Đường xá	:	:+Có khả năng:	
:	:	:giúp đỡ:làm VLXD:	chất lượng	:	:quản lí và :		
:	:	:và tham:+Săn tre:	kém	:	:tổ chức thực:		
:	:	:gia của:gỗ	:	:	:hiện các :		
:	:	:đoàn :	:	:	:h.động của xã		
:	:	:thanh :	:	:	:+ 10 và 5 :		
:	:	:niên, :	:	:	:công LĐ/người		
:	:	:hội phụ:	:	:	:nghĩa vụ :		
:	:	:nữ :	:	:	:trong năm. :		
:	:	:+Có sự	:	:	:		
:	:	:giúp đỡ:	:	:	:		
:	:	:của tỉnh	:	:	:		
:	:	:huyện :	:	:	:		

:	Kết	:-Giúp	:	:-Xây dựng gần:	:-Không	:+Cán bộ địa	:+Thu nhập
:	:luận về:đỡ lẫn	:	:	:đủ các hạng	:có hệ	:phương có	:thấp từ tròn
:	:khả	:nhau	:	:mục côngtrình:	thủy lợi:	khả năng huy:	trọt
:	:năng	:-Xã hội:	:	:công cộng	:-Thiếu	:động nhân	:+Ngân sách x
:	:của địa:dân chủ:	:	:	:những chất	:công cụ	:dân tham gia:	thấp, không
:	:phương:tự do	:	:	:lượng kém	:sản xuất:	thực hiện các ổn định	
:	:	:-Có sự	:	:	:và chế	:công việc	:+Hỗ trợ từ
:	:	:giúp đỡ:	:	:	:biên	:của xã	:tỉnh, huyện
:	:	:của	:	:	:lương	:	
:	:	:huyện	:	:	:thực	:	
:	:	:tỉnh	:	:	:thực phẩm	:	

KET QUA DIEU TRA HO GIA DINH

Niễn Kiệt
17/12/91

Xa: Thangson

Dan so - Lao dong
=====

DAN TOC

Kinh :	10.00 %
Muong:	90.00 %

HO GIA DINH

1-3 nguoi:	16.00 %
4-5 nguoi:	30.00 %
6-7 nguoi:	36.00 %
Tren 7 nguoi:	18.00 %

DO TUOI

Duoi 6 tuoi:	13.78 %
6-15 tuoi :	31.10 %
Tuoi LD :	50.18 %
Tuoi gia:	4.95 %

LAO DONG

Lao dong thuc te:	93.80 %
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GIAO DUC

Di nha tre:	87.18 %
Dang di hoc:	93.18 %

HOC THUC

Tren pho thong TH	4.00 %
Pho thong Trung hoc	36.00 %
Pho thong Co so	60.00 %
Mu chu	0.00 %

DINH CU

Truoc 1960	93.88 %
1960-1980	2.04 %
Sau 1980	4.08 %

DAT DAI
=====

DAT CANH TAC

- Dau nguoi:	1.34 sao/ng
- Mot lao dong:	3.19 sao/ld

THUY LOI

Ruong khoan duoc tuoi chu dong	0.79 %
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DAT RUNG

- So gia dinh nhan khoan: 54.00 %
 - Moi lao dong cham soc : 0.77 ha

DAT VUON - MAU

Ty le gia dinh co vuon, mau: 98.00 %
 Binh quan dau nguoi : 0.79 sao/nguoi
 Binh quan lao dong : 1.90 sao/lao dong

LO DAT O

Dat xay dung : 0.25 sao/nguoi
 Dat vuon : 0.72 sao/nguoi
 Dat tho cu : 0.98 sao/nguoi
 Nha o : 12.46 m2/nguoi

CO SO HA TANG

Nha mai ngoi : 6.00 %
 Nha co tuong gach : 6.00 %
 Trong do :
 = Lop ngoi: 66.67 %
 - Lop la : 33.33 %
 Bep ngoi : 4.00 %
 Co nha ve sinh : 86.00 %
 Trong do xay kien co: 9.30 %

Nguon nuoc
 =====

Gieng : 90.00 %
 Song, suoi: 6.00 %
 Khac : 4.00 %

Chat luong nuoc

Tot : 64.00 %
 Trung binh: 36.00 %
 Xau : 0.00 %

Luong nuoc xu dung:

Dau nguoi: 1.37 ganh/ngay
 Dau ho : 7.74 ganh/ngay

Di lai

Tho so: 88.00 %
 Co gioi: 4.00 %

Van chuyen

Tho so : 78.00 %
 Co gici: 0.00 %

KINH TE GIA DINH

Muc song

Thieu an :	24.00	%
Thieu it :	36.00	%
Tam du :	34.00	%
Du :	6.00	%

Thu nhap luong thuc quy thoc

Ho loai 1 :	220.69	Kg/nguoi
Ho loai 2 :	251.89	kg/nguoi
Ho loai 3 :	283.33	kg/nguoi
Ho loai 4 :	358.82	kg/nguoi
Chung :	263.25	Kg/nguoi

Nang suat lua

Ho loai 1 :	102.40	kg/sao
Ho loai 2 :	116.09	kg/sao
Ho loai 3 :	140.98	kg/sao
Ho loai 4 :	145.24	kg/sao
Chung :	123.75	kg/sao
	tuong duong:	3.44 Tan/t

Thu tu KT vuon

Ho loai 1:	127.59	ngan dong/nguoi
Ho loai 2:	35.85	ngan dong/nguoi
Ho loai 3:	46.57	ngan dong/nguoi
Ho loai 4:	76.47	ngan dong/nguoi
Chung :	60.95	ngan dong/nguoi

Tinh thanh tien Tu chan nuoi lon:

Ho loai 1:	17.24	ngan dong/nguoi
Ho loai 2:	36.42	ngan dong/nguoi
Ho loai 3:	41.96	ngan dong/nguoi
Ho loai 4:	40.00	ngan dong/nguoi
Chung :	34.70	ngan dong/nguoi

Tu chan nuoi ga :

Ho loai 1:	7.59	ngan dong/nguoi
Ho loai 2:	12.08	ngan dong/nguoi
Ho loai 3:	6.27	ngan dong/nguoi
Ho loai 4:	16.47	ngan dong/nguoi
Chung :	9.33	ngan dong/nguoi

Tu luong thuc:

Ho loai 1:	264.83	ngan dong/nguoi
Ho loai 2:	302.26	ngan dong/nguoi
Ho loai 3:	340.00	ngan dong/nguoi
Ho loai 4:	430.59	ngan dong/nguoi
Chung :	315.90	ngan dong/nguoi

Tong thu :

Ho loai 1:	289.66	ngan dong/nguoi
Ho loai 2:	350.75	ngan dong/nguoi
Ho loai 3:	388.24	ngan dong/nguoi
Ho loai 4:	487.06	ngan dong/nguoi
Chung :	359.93	ngan dong/nguoi

Chi tieu cho SX

Binh quan dau nguoi

Ho loai 1:	4.31	ngan dong/nguoi
Ho loai 2:	9.10	ngan dong/nguoi
Ho loai 3:	10.49	ngan dong/nguoi
Ho loai 4:	10.00	ngan dong/nguoi
Chung :	8.67	ngan dong/nguoi

Binh quan dau ho gia dinh

Ho loai 1:	20.83	ngan dong/ho GD
Ho loai 2:	53.61	ngan dong/ho GD
Ho loai 3:	62.94	ngan dong/ho GD
Ho loai 4:	56.67	ngan dong/ho GD
Chung :	49.10	ngan dong/ho GD

Chi cho XD nha

Ho loai 1:	130.86	ngan dong/nguoi
Ho loai 2:	63.58	ngan dong/nguoi
Ho loai 3:	164.22	ngan dong/nguoi
Ho loai 4:	214.71	ngan dong/nguoi
Chung :	122.72	ngan dong/nguoi

Chi cho sam sua

Ho loai 1:	77.10	ngan dong/nguoi
Ho loai 2:	68.68	ngan dong/nguoi
Ho loai 3:	99.71	ngan dong/nguoi
Ho loai 4:	61.76	ngan dong/nguoi
Chung :	81.17	

Tong chi

Ho loai 1:	267.53	dong/nguoi
Ho loai 2:	186.32	ngan dong/nguoi
Ho loai 3:	328.53	ngan dong/nguoi
Ho loai 4:	520.59	ngan dong/nguoi
Chung :	274.30	ngan dong/nguoi

DU KIEN
=====

Can sua nha :	48.00 %	9
Can xay nha moi :	64.00 %	1

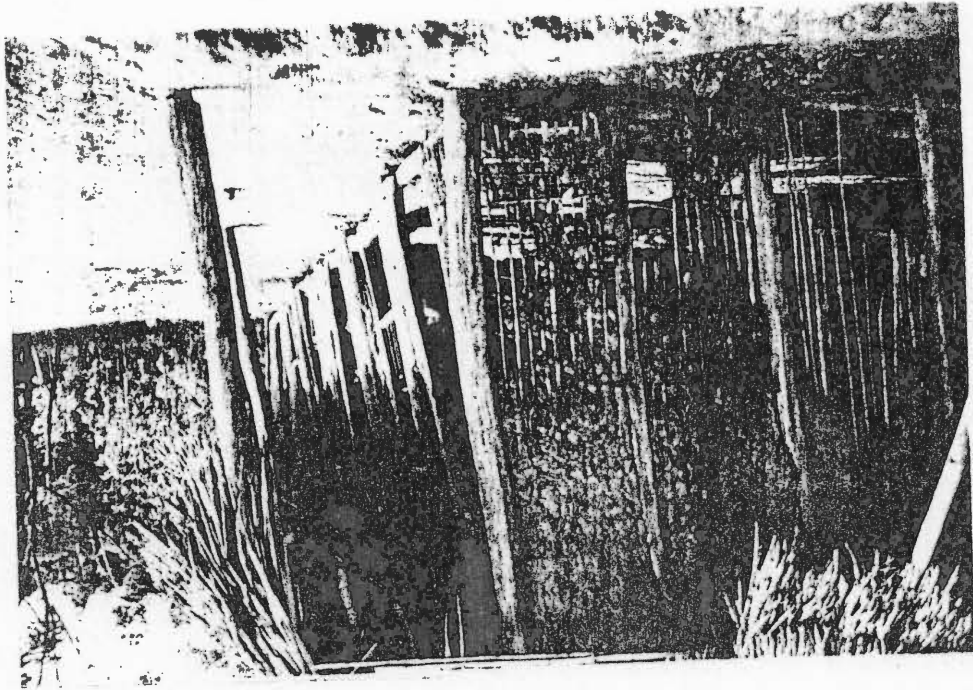
Du kien phat trien kinh te:

Vuon	:	96.00 %
Chan nuoi	:	98.00 %
Ruong khoan:		88.00 %
Rung	:	38.00 %
Nghe phu	:	6.00 %

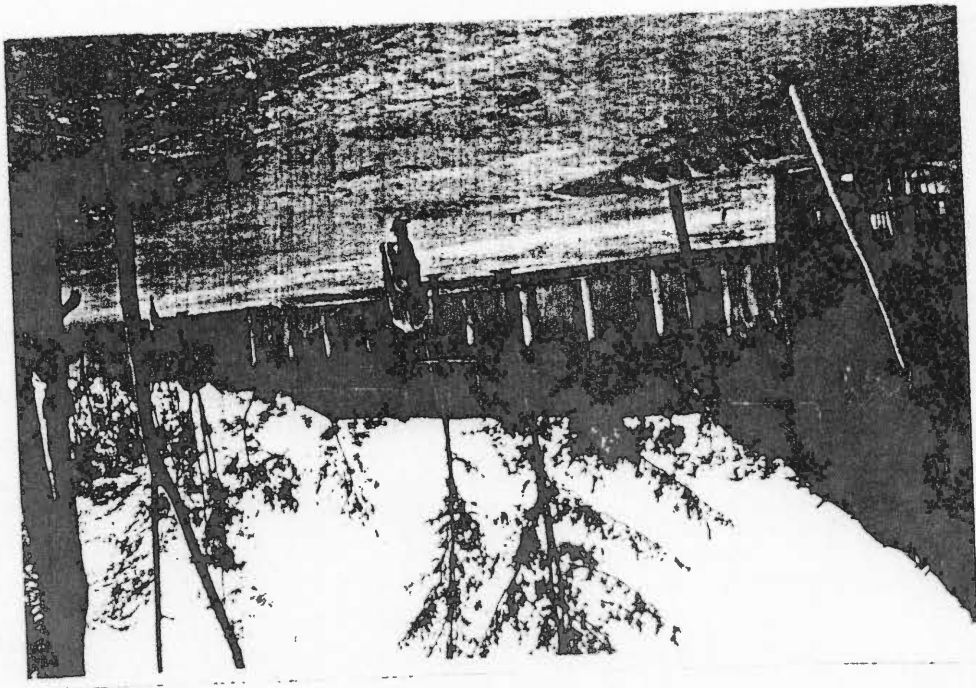
Dau tu cho XD nha cua:

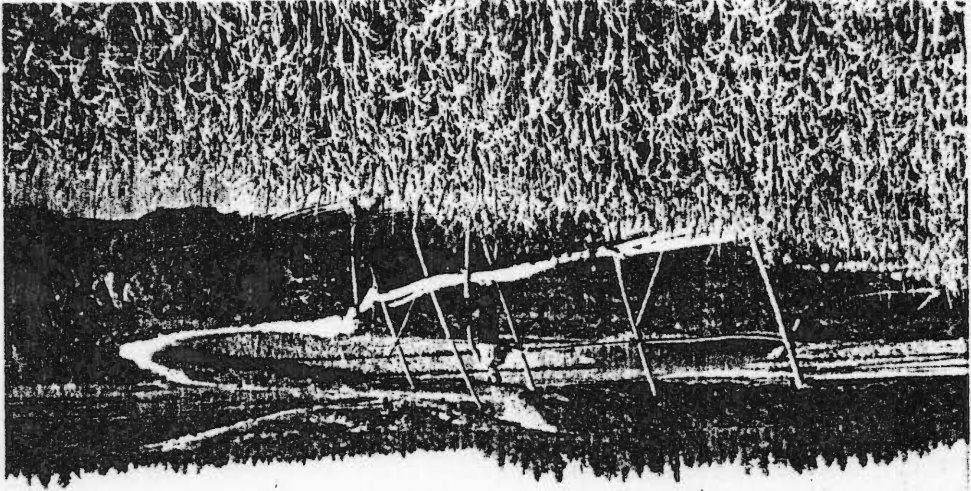
Ty le:	88.00 %
Trung binh:	4681.82 Ngan dong/ho GD

Ty le can dau tu noi chung:	92.00 %
Ty le von tu co:	45.07 %

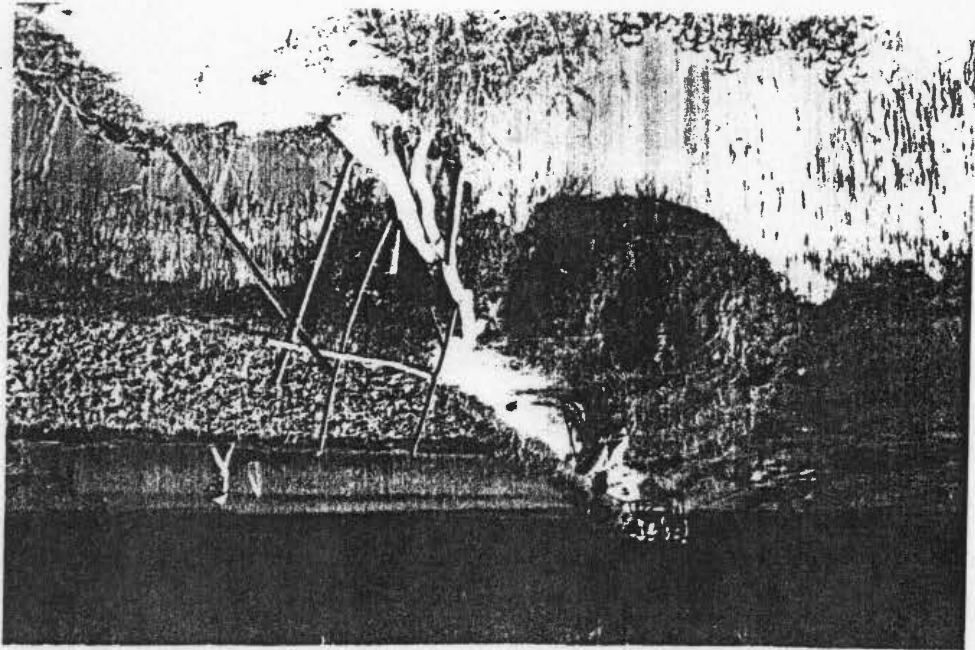


BASIC SCHOOL IN THAVI SEN COMMUNE





Road network in Thane Søn



Chapter 4.
CERPAD report
Development planning of Xuan Vien Commune, Vinh
Phu Province

PART I : BASIC NEEDS / PROBLEMS

I / General situation

1.1 / Location:

Xuan Vien is mountain commune, situated in the up-area of Yen Lap district. Vih Phai province, about 9 km away from the district center by the inter-commune road. It is lying in the west-north west for Vih Th town, in the north west for He noi, 20 km away from Vih Tin by national road 2, provincial roads 11A and 98 respectively. From He noi it is reached by two ways:

- + He noi - Viet Tin - Phu Tho - Song Thao - Yen Lap : ≈ 150 km
- + He noi - Son Tay - Tam Thanh - Yen Lap : ≈ 120 km

4.2 / History / Formation

Lying in the high-hill area connecting to the low-hill areas, in general, it is mainly developed after 1955. Before 1955, this commune has been administratively a part of Nam Xuan commune which including existing communes: Xuan Van, Xuan Thuy, Xuan An and a part of Trung Son.

Four existing villages (Dong Xuan, Quung Dong, Quyet Tan, Van Binh) is formed after 1955, based on the foundation of the eight former villages. At the previous time, the inhabitants have been thinly populated this area, the main production here is rice farming; at the first, is hill rice farming, and then, is field rice farming.

4.3 / Topography and soil composition.

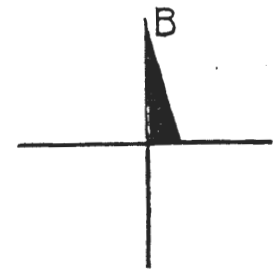
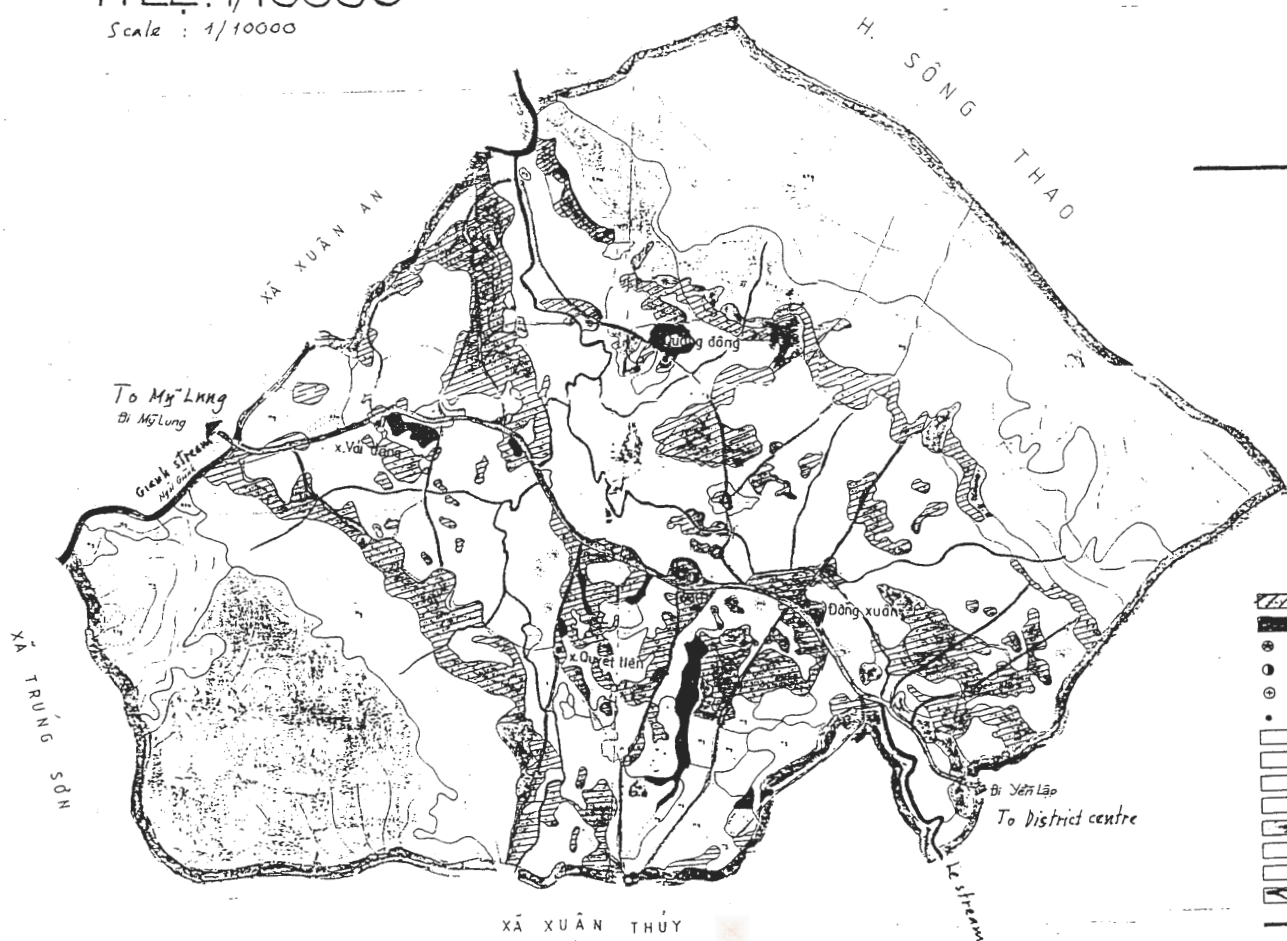
It is mainly mountains and hills topography in the area. The low-hill and relatively flat areas are lying between two mountain ranges which run in north west and south east direction. The mountains and hills areas occupy 55% of the commune area, the rest is relatively flat areas and of these same 55% are steep fields. The natural area of the commune is classified in topography as follows:

+ The mountains area of over 45° slopping occupy 40% of the total

X. XUÂN VIÊN . H. YÊN LẬP . T. VINH PHÚ
HIỆN TRẠNG XÂY DỰNG

- Existing maps of the commune

TỈ LỆ: 1/10000
 Scale: 1/10000

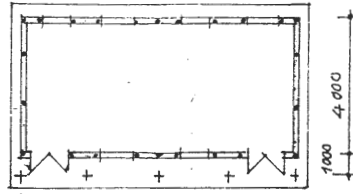
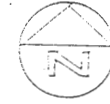


CHÚ THÍCH - Reference

- ĐẤT Ở - Human settlements
- ĐẤT CÔNG TRÌNH CÔNG CỘNG
- ỦY BAN NĐ XÃ - peoples committee
- TRƯỜNG HỌC - Basic school
- TRẠM XÁ - Clinic
- TRUNG TÂM XÓM THÔN - sub. centre
- ĐẤT TRỒNG LÚA - rice fields
- ĐẤT MÀU ĐỎI - sub. crop land
- RỪNG TỰ NHIÊN - Forest
- RỪNG TRỒNG - Forestry plantation
- ĐẤT CÂY LÂU NĂM - Long-term plantation
- ĐẤT CÂY CÔNG NGHIỆP - Industrial trees land
- ĐẤT HOANG - deserted land
- AO HỒ SÔNG NGÔI - pond pond, stream
- ĐƯỜNG LIÊN XÃ - Inter commune road
- ĐƯỜNG LIÊN THÔN - Inter village road

HIỆN TRẠNG KHU TRUNG TÂM XÃ XUÂN VIÊN

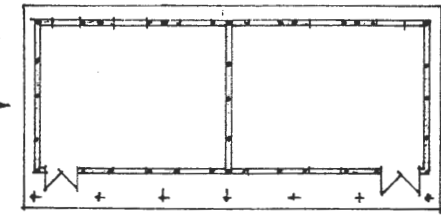
Existing area of the commune centre



Classroom plan

2.500 2.500 2.500 2.500

4.000
1.000



Classroom plan

2.500 2.500 2.500 2.500 2.500 2.500

5.800
1.200

Đi Mỹ Lung - To My Lung

Basic school.

Đi Yên Lập
To District centre

CHÚ THÍCH Reference

- 1 TRỤ SỞ UBND XÃ. people committee
- 2 NHÀ BẾP Kitchen of P.C.
- 3 NHÀ CỬ KHÔNG SỬ DỤNG House of
- 4 TRẠM XÁ Clinic
- 5 PHÒNG HỌC Classroom
- 6 NHÀ TẬP THỂ GIÁO VIÊN Teacher house
- 7 NHÀ CẤP 4 - House in grade 4
- 8 NHÀ TẠM Temporary house
- 9 DÂN CƯ Household plots
- 10 RUỘNG Lúa rice fields
- 11 ĐƯỜNG LIÊN XÃ Inter commune road.

The typhoon usually occur from May to November and mainly in July, August. It may be damage the temporary houses in the commune. The floods usually occur in the rainy season. Each guest of food only lasts

1.4.4⁹ Humidity: Rather high, The annual average: 95%
 1.4.5⁹ Typhoon, flood, drought:

- The average wind speed: 14 m/s
- The highest wind speed: 22 m/s
- The lowest wind speed: 5.5 m/s
- The main direction of the wind: south east in summer and North east in winter

1.4.3⁹ Wind:

- Monthly average in rainy season: 400 mm
- Monthly average in dry season: 200 mm
- Months with more rainfall: April, May, June
- Months with little rainfall: November, October, December, January

1.4.2⁹ Rainfalls

- Annual average: 22.5°C
- The hottest months: June, July; monthly average: 38°C
- The coldest months: January, December; monthly average: 17°C

1.4.1⁹ Temperatures:

1.4⁹ Climate

In general, the soil here is mainly LATERIT. The top soil is classified:

- + The low hill areas a 10-15%
- + The relatively flat areas 25% a a a

flat areas

+ light loamy soil: its average thickness is about 80 cm; is suitable for cinnamon, garden, sandal wood, tea plantation; be long to the areas of mountain areas of 45°

+ Sandy soil, light loamy soil: its average thickness is 25 cm; is suitable for rice and sub crop farming; be long to low-hill and relatively flat areas

for few fine days, results from gusts of rain lasting for 6 hours and occurring every 2-3 hours. The period flooded is short, but it often destroys small dams and make the soil poor (deteriorate rice fields)

The dryness occur in dry season, it badly affects rice fields of one crop which is watered by rain only.

1.5/ Land use

The commune natural area is 1,320,91 ha. It is classified as follows:

+ Agriculture land : 300,62 ha

of which :

- Rice - one crop : 69,43 ha

- Rice - two crop : 156,61 ha

- Sub-crop : 82,8 ha

- Ponds : 9,2 ha

- Deserted land : 10 ha

- Rice nurseries land : 20,53 ha

- Other : 14,96 ha

+ Forestry land : 774,48 ha

- Afforested area : 71 ha

+ Special land : 184,51 ha

- Household plots : 155,91 ha (including 183 ha of gardens)

- For public buildings : 11,95 ha

- Roads + streams... : 15,4 ha

In general, The agriculture land have been exploited mostly, but the forestry land have exploited is not much, although the natural forests have been severely deteriorated.

1.6/ Population and labour

According to population survey at the time of 31/12/50, the commune has 3510 persons, of which 1765 persons are women (55%). Most of people here are M'ong, occupies 35% of population. The Khm'r people occupies only 3% and the rest is Tay people.

The age structure is as follow:

+ 1-5 years of age	: 19.2%
+ 6-15 " " "	: 24.8%
+ 16-55 " " "	: 39.5%
+ 55-60 " " "	: 2.4%
+ > 60 " " "	: 14.1%

(According to the national population census of 1989).

There are 594 households in the commune, ~~the~~ on average of 6.4 persons per household. Some 64% of households have over 6 persons, meanwhile only 12% of households have 3 persons or less.

The annual population growth rate is 2.09%. This rate is rather high, although it has been reduced gradually by family planning programme of the commune.

The commune has 1523 labours (43% of the population) of which women labours occupy 53%. In practice, there are only 1220 labours which is distributed as follow:

+ Agriculture labours	: 1158	(95%)
+ Forestry " "	: 20	(1.6%)
+ Artisans	: 10	(0.8%) - brick makers
+ The rest is indirect labours		

Making the balance between labour forces and jobs, the number of labours without job is 303 ~~the~~ labours.

II) Economic development. 2.1) Main economic activities

Cultivation is main economic activity in the commune, with ~~two~~ ^{main} farms: rice and subcrop ~~cult~~ farming. All families do participate in the activities. On average, each family receives land quotas of 3400 m² for rice farming and of 2500 m² for subcrop farming.

Although it is main activity, its effect only stays at low levels as follow (average productivities):

- Rice	: 74 Kg / sao . crop	(1 sao = 360 m ²)
- Maize	: 50 Kg / sao . year	
- Cassava	: 200 Kg / sao . year	

- sweet potatoes: 500 kg/year

Sub-crop trees are planted in one crop fields, hill gardens and gardens in household plots. They are very important to supplement the ~~quantity~~ amount of rice insufficient for commune people's need.

Breeding activity is now mainly cease to meet family consumer needs (only 4 households raising pigs for goods production). The total breeding activity in the commune is: each family has 1-2 pigs, 1-2 ~~some~~ calves for cultivation or transport purposes and poultry

For two years afforestation just have been developing with economic effective trees like cinnamon, tea, sandal woods. Only 20% of household ~~participate~~ participate in this activity and undertake 41 ha.

Although the business cycle of the trees is long - normally 10 years - and the results given slowly, this activity has great potential in the future. At the present there are 10 households developing this activity in form of joint farm.

2.2 Household economic activities

The activities stated above ~~take place~~ also take place within household plots (excluding rice farming). Besides that, some 50% of households have ponds, of which 83% are used for family consumer need only). The household plots with economic value occupy 87% of the total and planted with main trees such as: Tea, sub-crop trees, trees for paper - raw material and ~~vegetables~~ vegetables. The percentage of households raising pigs is 91.6%, of which 18% of households have masonry pigstys

In general, household economic activities have an important potential, but not be exploited effectively due to shortage of land. Family income from household economic activities is about 150,000 of kg/year by average (excluding a part for family consumer needs)

2.3 Family income

The average income of grains foods equivalent to rice: 193.65 kg/person-year. It is very low level of income, not enough for ~~family~~ requirements of foods

Besides that, each family may earn average or more income from following sources:

On average from:

- Gardening : 100,000 t - 200,000 t / household . year
- Pigs raising : 150,000 - 200,000 t / " "
- Chicken raising : 50,000 - 100,000 t / " "
- Others : 300,000 t / household . year .

At the present, in the commune the percentage of household lacking of food is 68% of the total, of which the household extremely lacking of food occupy 61,7% - which have to receive a rice subsidy from the commune for over 3 months of the year. In general, it is the category of the poor. Their average income of grains food is about 120 Kg/person . year. Although with lowest income, they have to spend almost much money, especially for repairing their houses (67% of total expenditure). The capacity of this category to save is not significant.

Some 80% of families have an average income, relatively enough to support themselves. They can get an average of 224.44 Kg of rice per person a year and annually can manage to save a small amount of money (200,000 - 300,000 t).

Finally, only 4% of families have relatively high income (the rich). Commonly, these families have a plenty of persons (over 9 persons) and is capable to save an amount of about 1,000,000 t per year which they spend for consumer goods, production and repairing their houses.

Apart from above sorts of income, another income must be taken into account is an amount of manure. On average of 1 tone of manure per household a year coming from following sources:

- Cattle waste : 60%
- Pige " : 80%
- Human and poultry waste : 10%

The amount of manure is used for rice farming (80%), sub crop plantation (10%) gardening (10%)

2.4 / Commune economy

The currently productive way of the commune is that the commune management directly given to each household. The commune is mainly

In each village there is one sub-centre with small school and kindergarten (Maximum distance: 1 km) and it is convenient for communication. Living area per household within the commune is large. Each household is supplied with an area of 400 m² for housing construction and with an area of 2500 - 3000 m² by average for gardening. The number of households have garden of over 1 ha occupy 20%, of about 4000 m² occupy 60%. Besides the above, 10% of households have an average of 360 m² of pond.

The commune centre, including people's committee house, basic school, public health centre, is placed in Dong Xuan village and attached to the inter-commune road. Its location is central within reasonable distance of other settlements. The most household here have settled before 1950 (96% of total households)

- Dong Xuan village : 152 households

- Quang Dong " : 147 "

- Quang Thuan " : 93 "

- Vay Dong " : 163 "

Each village has separate settlements including one main settlement and a lot of sub-settlements. The sizes of villages is as follow:

The human settlements ~~settlement~~ in the commune is not concentrated, it is very dispersed throughout the flat and low-hill areas of the commune because of topography characteristics. Although with the dispersive distribution, the human settlements is grouped in 4 areas can be considered as 4 villages. Each village has separate settlements including one main settlement and

3.1 / Traditional villages

III / Human settlements

collecting taxes

In general, the benefit from the commune economy is mainly based on tools. All of the productive tools belong to individuals. They are mainly manual requirement of rice farming.

Now, in the context of commune economy the physical bases for production left is only one storage and large irrigation system insufficient to meet

in charge of delivery of land quotas to households, of managing irrigation system, of technological service as provision of seed, fertilizers insecticides and collecting taxes.

3.2 / Public construction
3.2.1 / Basic school

The commune has a basic school, built at the centre of the commune. The school has 6 blocks of houses with total of classrooms, each of 4 blocks has 2 rooms and each of 2 blocks ~~has~~ left has one room. In addition to that there are 2 blocks of collective houses for 35 teachers' accommodation. All of these is put together in an area of about 1.4 ha. The classrooms mentioned above is enough for 672 pupils, studying in 2 shifts (the average class size: 34 pupils)

The existing location of the school is quite reasonable, the max distance for its route: 3 km

The mixed arrangement of classrooms and teachers houses in the same area is not reasonable, affects the education quantity and the criterion for school land badly.

All of classrooms is in bad condition, built quite temporarily (thatched roof, bamboo wattle wall, no window panes); very cold inside in winter; get noise from each other; have only earth-floors, old and broken desks and lack natural light for pupils in winter. All of these have ~~caused~~ ^{contributed} a part to reduce the ~~poor~~ quality of pupils' study. The percentage of pupils going to school is 82% of the total in school ages and the number of people in the commune, get at secondary education level, occupy only 6% of total of commune population

For bad quality of classrooms, annually the local had to spend an amount of about 2,000,000 \$ for repairing them which have been damaged by the storms.

Apart from this school, in each sub-centre there is one small school with 60 - 70 pupils in the 1st and 2nd forms. Each school has one block of temporary houses with 1-2 classrooms

3.2.2 / Clinic

built in 1978, based on the fund from the District, Commune and commune people's contribution. The clinic has a block of houses in grade 4, with good quality. It consist of 6 compartments with construction area of 145m² and built at an area of 1700m². Its equipments is in good operation. In general, the clinic does not ~~meets~~ only meets requirements of health within the commune, but also serves some

needs outside

3.2.3 / kindergartens

Each sub-centre has a kindergarten with one class of 40-50 children. It is temporary house of three compartments. The needs on this aspect need not be necessary at the present

3.2.4 / People's committee

Built in 1990, also based on the land from the District, Commune and Commune people's contribution. It is a block of houses in grade 4, with good quality and functioning well

3.3 / Houses

Most of the houses in the commune is established in traditional way, It consists of following components:

- + Main house: has 3-5 compartments of which span is 2.5m
- Its area here is larger than area of the same in the plain areas

- + front yard:
- + kitchen: commonly, linked to the main house
- + stable, latrine:
- + well or jar: well commonly is linked to front yard

All of above components is arranged within area of 400 m² which is for housing construction only.

Some 96% of houses in the commune are temporary, built in following structures:

- + Wall: bamboo wattle or rammed earth with bad quality
- + Column, roof frame: bamboo and woods
- + Roof: palm leaves

These houses commonly is commonly damaged by storms.

3.4) BUILDING MATERIALS AND TECHNOLOGIES IN XUAN VIEN

Resource of building materials in Xuan vien is very limit, mainly from forest and local soil such as : wood, bamboo, palm leaves, brick and earth walls.

- 1. Wood are available in the commune, houses with wooden frames are very popular, the local carpenters are also builders can easily erect houses, most of houses has wooden roof structures.

There are two kinds of wood : hard wood from forest and soft wood from gardens, roof structures can be made by hard wood or soft wood and the durability depends on it from 20 to 50 years. The degrading of forest causes decreasing of quantity as well as quality of forest wood, at the same time the price jump up.

Wood can be used in timber (10 x 35 cm; 1.5 x 35 cm) or origin shape d= 20-25cm.

- 2. Bamboo are very popular in the commune. Bamboo are used for roof structure or walls as well. It is very easy for villagers to build their houses with bamboo mats or walls. House built with wood and bamboo although very cheap and faintly make but last shortly, only 5-10 years and require maintenance every year.

Bamboo houses are majority in the commune with 90% existing houses.

- 3. Brick: there are some brick kilns in Xuan vien, just now only one kiln operate with 40,000 brick/kiln when someone order.

Quality of brick is poor (about 40 kg/cm²)
Size of brick : 5 x 9 x 20 cm.

- 4. Yellow sand: is available in the commune. On the bank of Danh stream the villagers can exploit yellow sand for building in the commune or selling, price of local sand is 1/2 - 2/3 market price.

- 5. Earth wall: People in the commune have experiences in rammed earth wall, but they only are used for covering walls with cracking surface.

Soil in the commune is a kind of laterite . By testing local soil samples in school and commune office site, the result shown that with liquid limit 38.8%
plastic limit 17.4%
plastic index 21.4%

soil in Xuan vien is quite suitable for unstabilized and stabilized earth blocks for load-bearing walls.

6. Roof covering materials:

- Palm leaves : Xuan vien has palm hills covering the territory, 90% houses there cover by palm leaves. Palm leave roof can last 10- 15 years depends on the thick of the covering.
- ! People has tendency to replace palm by others for its ineffectively.
- Clay tiles and cement tiles are available from the markets of district or neighbor communes.

7. Others:

- Cement is available in the market:
National cement (Bim son or Hoang Thach factory) and
Provincial Cement (Thanh ba- Vinh phu).
- Steel imported for construction is also available in the markets.

8. Construction cost:

House with wooden roof, bamboo frames, torchis walls and
palm leave covering : 80,000 - 100,000 d/m2
Carpenter : 10,000 - 15,000 d/m2.

The present irrigation system of the commune has given great influence to the rice production and water come from 3 main resources:

- * Water from stream: 6 small streams (passing through the commune 2 km, 10-20 m wide, 1.5-2.5 m deep) 1st stream (passing through the commune 4 km, 2-8 m wide, 1-2 m deep).
- * Water from lakes: Mainly from 2 big lakes (Bia and Bong) with storage capacity of 19,000 m³ in dry season and 40,000 m³ in wet season.
- * Water from canal and streams: The commune available with 6 big canals and over 60 small canals with the length of ≈ 10 km. The 6 big canals have average length of 10-20 m, 3-4 m wide, and 2 m high. The above canals are earth filled ones with closing bamboo or roads at the down and up streams. Only 2 big canals (Khe xip, Bong) made of rock and concrete are still in good condition. While other earth filled canals with bamboo support need to repair every year after the wet season.

With the present capacity of the irrigation system, only 58% of the rice field to be served with water (246,6 ha) need no water but only 14,25 ha served with water and the remaining is 103,7 ha) like commune available with 2 big ~~to serve~~ water reservoirs: to the east and water flowing by gravity. Each canal can supply water for 815 ha and rest supplied by small canals. In general the commune is not yet available with sufficient irrigation system and according to plan 91-95 with the central Government Budget the construction of ~~the~~ sufficient

IV -

to irrigation system at Wong Bang on canal
stream to supply water for 115 ha at Wai Wai
will be made and rest will still be supplied by the
canals so the upgrading and construction of additional
canals at the commune is strongly needed for
the present use as for future need.

I / Communication and transport

5.1 / Links

5.1.1 / Land transport

The road network in the commune is established further completely and in current condition can ensure the communit relationship between settlements and the commune to centre as well as between the commune and the outides. It consists of following ~~sort~~ kinds of road:

+ Intra-commune road: is ~~type~~ the type of earth-stone road with surface width: 5-6 m, total length of length: 2600 m. It is used by lorries, motorcycles, ox-carts, bicycles... A sample for density of transport taken at cross-road on this road gave the following results over 12 hours (from 6 a.m to 6 p.m):

- Number of lorries: 10 per day
- " " motorcycles: 20 " "
- " " ox-carts: 25 " "
- " " bicycles: 70 " "
- people's farming: 1500 turns

This road is annually maintained by the District and the commune + Intra-village road: is the type of earth road with surface width: 2-3 m; total of length: 13,000 m; used mainly by motorcycles, ox-carts, bicycles... sometimes by cars.

+ Pa Hill path: Total of length: 20,000 m; surface width: 1 ± 1.5 m; used by bicycles and people.

In general, all kinds of road in the commune have good foundation, but will be muddy in rainy season and dusty in dry season (except the intra-commune road) if are often used by ~~and~~ heavy load vehicles

At the present the currents is a problem interfering with land transport in the commune. The inter-village roads ~~are~~ commonly cut by irrigation lines and small streams. At the ~~places~~ cut places of the roads the currents

is established in different forms: may be a body of palm; may be spaced with bamboo and covered with earth. Their life-span is ~~years~~ within one year. The total of currents in the commune are 192 units, most of them are in bad condition and are classified as follow:

- φ 100 : 30 units
- φ 70 : 18 "

- φ 60 : 53 units
 - φ 30 : 11 "

The commune has 6 bridges as follows:

- One is very durable bridge - on inter commune road, made of

reinforced concrete - is 6m wide and 43m long

- One ~~there~~ is semi-durable bridges - on inter-village road from

0. THIEU to 0. DUC - made of steel and wood - is 3m wide and 12m long

- The next is temporary bridges - is 1.5m wide long - made

of bamboo and covered with earth, used by improved carts with load

less than 0.5 tons.

In general, the quality of most bridges is not very good, but is

good enough to use in current condition of the commune.

5.1.2 / Stream transport

There are 2 streams - Le and Gieng streams - in the commune. They

are only used by roads and bamboo floats, exploited on the mountains

5.2 / Transport

5.2.1 / The nature of the goods transported

There is no exact data, but through observation the kinds of good are identified as follows:

+ goods in: building materials such as cement, steel,

gravel, stone, fired brick and tile, black sand...

fuel, fertilizer and consumer goods.

+ goods out: wood, bamboo, paper - raw materials, food

~~stuff~~ - food - stuff and grains food

All these ^{are} transported by land.

5.2.2 / The means of transport

There are many ~~and~~ widely and are plentiful and include

+ converted bicycles: mainly used by families over short distances

+ Improved carts: used as above

+ Ox-carts: used for transport of all kinds of foods and

building materials

+ Lorries of the kinds: used for all kinds of goods

The means of transport within the commune can be broken down as follow (all belonging to individuals and controlled by them)

+ Converted bicycles : 250 units ; improved carts : 8 units ;
Ox-carts : 10 units ; motorcycles : 4 units

5.3 / Transportation costs :

Depend on negotiation between the owner of the means of transport and his client, in general, mainly based on petrol consumption and the costs for ~~companion~~ labourers

VI / Water supply and sanitation

6.1 / Water supply :

Living water and water for gardening used coming from different sources, but mainly from family well. Some of 92% families have the well (551 households). The number of households using streams water occupy 5% - 29 households. The rest using water from the other ~~see~~ sources. The water from well, with good quality, The wells with good quality of water occupy 32% of the total ; with average quantity of water occupy 65%. So the sources of water usable occupy 97%, The sources with bad quality of water - only 3%. The average consumption of living water ~~to~~ per family a day is a volume equivalent to 6.8 a double of buckets

The average depth of wells is 4-5 m, maximum depth is 19 m. The tools for drawing water is in forms of bamboo crane. ~~With~~ ^{For} the type of drawing water For the type of drawing water the intensive farming in gardening is impossible. very good

6.2 / Sanitation

Some 98% of households have the latrine and most of households have a composting hole. 10% of the holes is masonry holes. The three fourth households of above households have good combination of use between composting hole and latrine. This proves that sanitation movement in the commune is good.

VII / Energy supply

Xum Vien commune has no electricity system. In the daily life, The fuel for domestic use ~~like~~ such as oil for lighting in the evening, woods for cooking is commonly used. On average of consumption of woods

for cooking is 500 kg/household. ~~month~~ year.
A problem for cooking here is not lack of wood, it is the problem
wood mixed to forestry protection. In the coming year for cooking
should be taken into account for within the commune.

BASIC NEED / MAIN PROBLEM IN XUÂN VIỆN

Level	To develop	Living condition	Public facilities	Family income	Collective economy
Family level		<ul style="list-style-type: none"> • Houses in bad condition • Drinking Drawing water from the well costs human energy much more • Lack of lighting for evening activities • <u>Saving fuel in cooking</u> (Use 4 hours to cook 2 kg of rice) & the preservation) 		<ul style="list-style-type: none"> • Low productivity of rice farming and gardening • Capital shortage of capital for gardening and forestry plantation (family economic development generally) • Credit for small investment too expensive and not available • <u>Family planning</u> 	
Immune level			<ul style="list-style-type: none"> • Basic school in bad condition • Fuel wood and briquet on lines of village in townships road in bad condition • Lack of small dam for irrigation and existing small dam in bad condition 		<ul style="list-style-type: none"> • Inefficient irrigation • Lack of fund to organize the market, • Not yet make use of potential of forestry land (land deserted) • Handicrafts economy not grow well
Priorities		<ul style="list-style-type: none"> • Improved housing quality 	<ul style="list-style-type: none"> • Public school construction • Improved outdoors • Improved small dam 	<ul style="list-style-type: none"> • Credit system 	

RESOURCES AND CAPACITY MOBILIZATION IN XUÂN VIỆN

Type	Social	Natural	Built environment	Capital installation	Human resources	Finance resources
Family level	<ul style="list-style-type: none"> Mutual help / 				<ul style="list-style-type: none"> Family size: 6-7 ps Minor laborer/Farm: 2-4 	<ul style="list-style-type: none"> Large household potential of family economic development 42% of household rather well aware of intensive farming in gardening
Poor			<ul style="list-style-type: none"> House with good brick wall Well, tank, latrine 	<ul style="list-style-type: none"> Impaired cart De cart Rice treading machine (leather) 	<ul style="list-style-type: none"> Skill labor: - Rice farming - Gardening - vegetable 	<ul style="list-style-type: none"> Saving (long years) ≈ 1,000,000 đ
Medium			<ul style="list-style-type: none"> House with earth wall and palm leaves roof Wall for latrine 	<ul style="list-style-type: none"> Impaired cart (a little minkon) Rice treading machine (a little minkon) 	<ul style="list-style-type: none"> Unskilled labor 	<ul style="list-style-type: none"> 200,000 ÷ 300,000 đ Emergent saving
Immune level	<ul style="list-style-type: none"> Relations support and help Executive board of PC for all activities Support from District and Province 	<ul style="list-style-type: none"> Earth for construction material Land for forestry plantation Streams Yellow sand 	<ul style="list-style-type: none"> Schools Clinic Administration Roads 	<ul style="list-style-type: none"> Navigation system (in physics) storage 	<ul style="list-style-type: none"> Local teaching capacities: young and active full responsible 10 and 5 working days/person for collective work for District and commune respectively 	<ul style="list-style-type: none"> Budget: 2% of C budget for capital construction Contribution from District and Province 40 % (50)
Local capacity	<ul style="list-style-type: none"> Administration organization not functioning Mutual help Support from District and Province 	<ul style="list-style-type: none"> Earth for construction material Forestry land 	<ul style="list-style-type: none"> Rather fully equipped, but not high quality 	<ul style="list-style-type: none"> Navigation system lack of equipment for production 	<ul style="list-style-type: none"> Local teaching capacities No initiative capacity for collective work 	<ul style="list-style-type: none"> Large large household plot low income from farming activities low budget and not fixed contribution from District and Province

Part II - POTENTIAL AND MOBILIZATION
THE LOCAL ABILITY.

1. Social organization.

What view is one of the model commune that has no cooperative and the management comes directly from commune to each house. The organization can be summarized as follows:
Commune → production groups → family house - holds

Every information provider under the commune executive committee is responsible for certain number of jobs so the commune organization is small and simple. The selected information providers are still young (average age: 35 - 37) active and enthusiasm in their work. Moreover, the activities, coordination of the commune is made on the agreement of all commune members and party so the constructions all really pursuable.

2. Natural potential

Following the main natural potentials of the commune:

- Sand for planting forestry trees is still large, only if the exploited ^{exploited} while good not get production of abundant bricks.
- Hill soil of laterite type ^{is} sufficient for yellow sand used for construction, although not so much in quantity but for the local need.

3. Construction possibility

In general almost the fundamental public works of the commune, except the general schools, are constructed with sufficient quality. Materials for housing's ~~commune~~ come from locality and training

quality is not so much different between the poor and rich and in general the existing houses are just temporarily shabby

4. Human potential

The commune is available with potential labour force as well as giving labour assistance to the district. Each year the commune assists the district with 4670 labour units (467 labour units x 10 days) with such labour potential the commune can mobilize 50% of labour force for its common works. The obligation of labour contribution by the peasants to the commune is 5830 labour units (1166 labour x 5 days) and the most convenient times for mobilization of the labour force are in all times of January, February, July and August while for the most months only 80% of above labour can be mobilized. The labour contribution can be paid by each or paddy (3 mg of paddy for 1 labour unit)

5. Economic potential

The garden economic development at family level, not yet developed because of low investment and technology, although at present time 87% of existing households engage in garden activities but having limited investment fund and knowledge of intensive farming so the garden economic development at present time just serve for the household's use not yet reaching to the scale of good production. Budget of the commune is not stable: 38,000,000 in 1990 and 30,000,000 in 1991. From different revenues:

- Taxes: 50%
- Social contribution: 30%
- Other: 20%

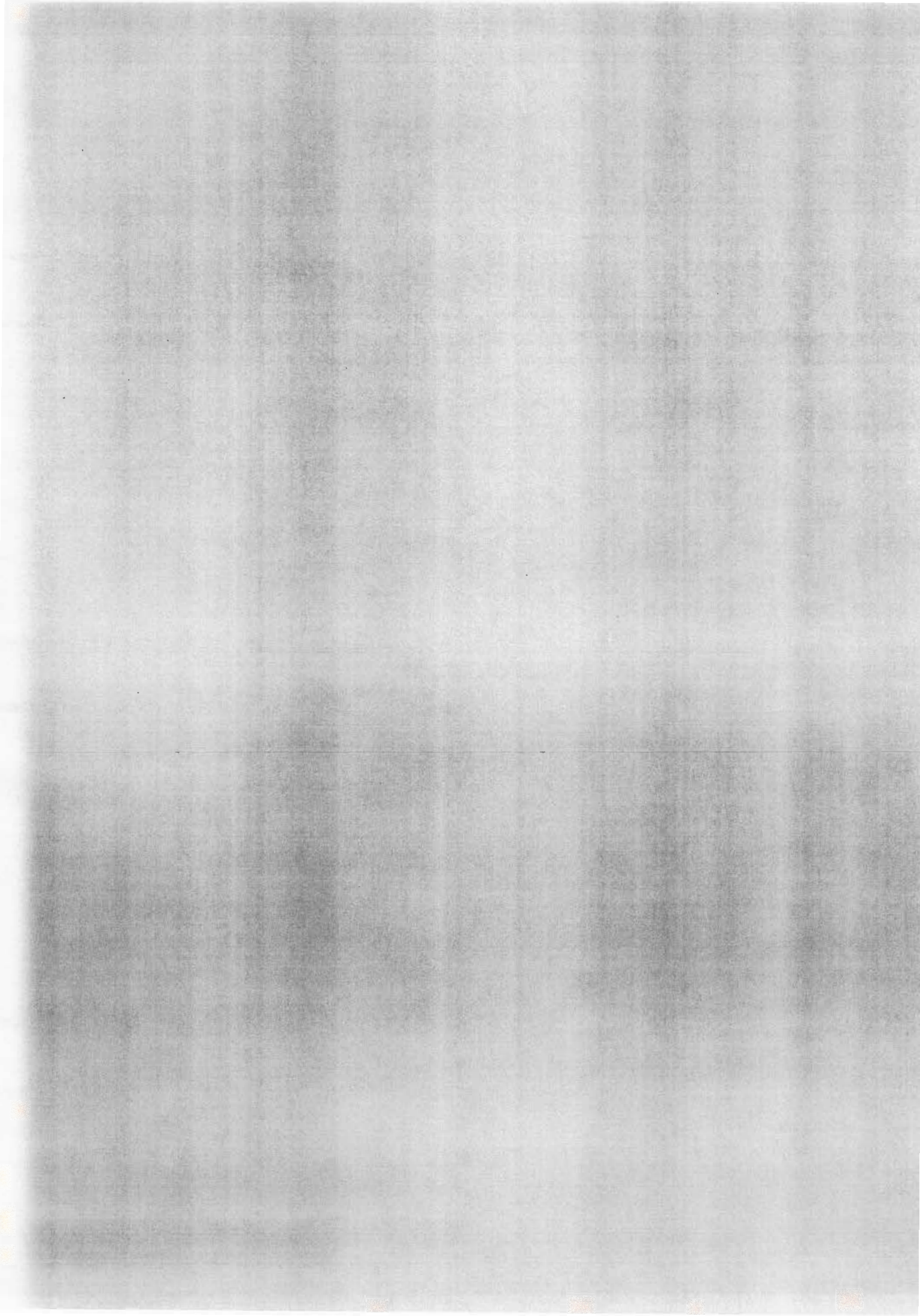
role of community banker as sponsor for infrastructure-
construction.

6. Credit system

The credit collective of the community closed in 1990 since then the credit lending areas given to district bank and at this level the lending procedure seems to be much more in extent committed. Credit lending can also be made available from private individuals but only in urgent cases and suffered from high interest (x 30%). Other credit type of collection and distribution money among the collectors amount by month are also available. but just depend in a few cases and such lending without the interest requirement.

: +Huyện : : : trong năm:
 : tỉnh ủng : : : ;
 : hộ : : : :

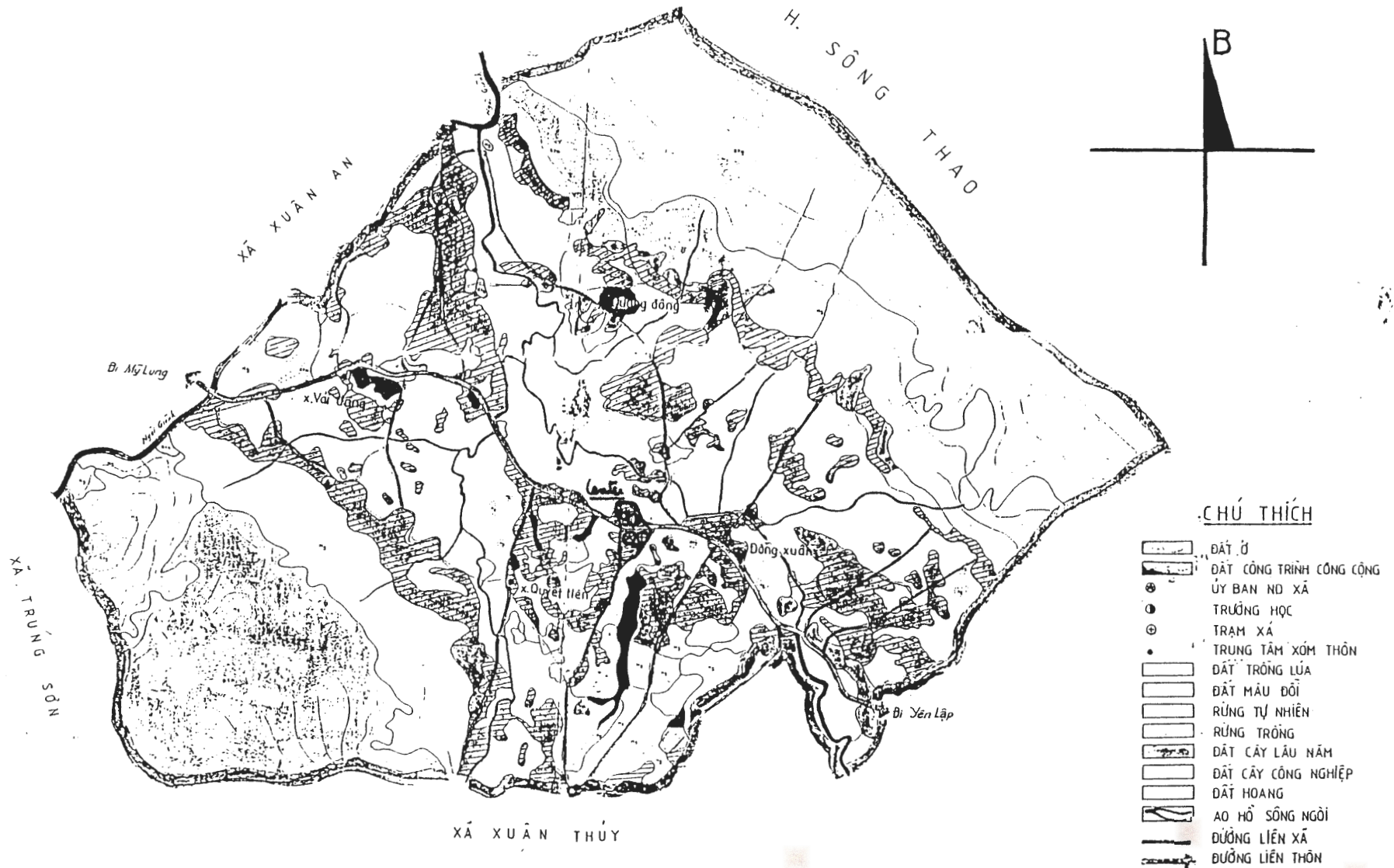
:Kết luận :+Bộ máy :+Đất cho :+Xây dựng :+Hệ thống :+Năng lực:+Diện tích
 : về năng : hành chính: làm VLXD : gồm đủ các: thủy lợi : cán bộ : vườn lớn
 : lực địa : gọn nhẹ :+Đất trồng:hạng mục, : chứa đất : đ/phường :+Thu nhập
 : phường :+Giúp đỡ : cây lâm N: nhưng chất: ứng nhu cầu: tốt : thấp từ
 : : lẫn nhau :+Cát vàng:lượng còn :+Thiếu dụng +Khả : trồng trọt
 : : +Huyện : : thấp : cụ sản : năng huy ;+Ngân sách
 : : tỉnh ủng : : : suất : động công:xã thấp và
 : : hộ : : : : lao động : không ổn
 : : : : : : cho công : định
 : : : : : : việc tập :+Hỗ trợ
 : : : : : : thể : vốn từ
 : : : ; : : : : huyện và
 : : : : : : : : tỉnh



X. XUÂN VIÊN_H. YÊN LẬP_T. VĨNH PHÚ

HIỆN TRẠNG XÂY DỰNG

TỈ LỆ: 1/100000



Chapter 2.

Notes on action to be taken in the Vinh Phu Communes

2.1. Thang Son Commune

After the workshop (see separate report) in January 1992, 6 areas of action have been identified.

1. School building
2. Upgrade 1.5 km of road
3. Develop a credit system for households
4. House improvements
5. Energy
6. Water lifting from wells

In subsequent discussion amongst CERPAD staff and the Sub-Contractors it has been agreed that action should proceed on items 1 and 2.

The school design must be developed in collaboration with the local counterparts, and must be based on clear design and material choice criteria. Detailed discussions have been held on the school design, and have focussed on where the main difficulties lie in achieving the desired level of durability for the school and in creating comfort for the users in winter.

Window design is critical. It has been suggested that there should be more windows on the side façades, each one narrower than is usually the case in Vietnamese school design. One potential design solution would be to have the lower portion made of wooden shutters, and an upper portion, unopenable, of glass, out of reach of children.

In this commune, a detailed comparison of the costs and benefits of earth wall construction compared to fired brick construction should be made, and the results should clearly show the benefits that can be made to local incomes, and not only the basic cost. The choice should not fall automatically on compressed earth blocks.

In developing road building, it is considered useful to develop a commune level skill in building simple culverts for draining water across roads, and this should be incorporated into the road building activity.

Credit is the third priority: CERPAD should contact other organizations in Hanoi working on this issue, through Jean Francois Mondain Monval Tel 265 386. In the communes, CERPAD should initiate a series of detailed household studies examining life style, patterns of work and use of space, and household economics and seasonal activity, in order to develop a better understanding of the nature of required loans and their scale, and the potential of repayments. Studies should be done in about 12 households during the February-April period.

The real needs for action on energy and house improvement should emerge from these same detailed studies, and CERPAD should be dissuaded from immediately developing

NHU CAU CO BAN/NHUNG VAN DE CHINH O XUAN VIEN

: \Phạm vi: Điều kiện sống: Các tiện nghi: Thu nhập g/dình: Kinh tế T/Thế
 : / : : (công trình) : :
 : cấp : : công cộng : :

: Cấp Gia : -Nhà ở chất : : -Năng suất thấp :
 : dình : lượng xấu : : trong canh tác :
 : : -Tốn nhiều sức : : lúa và làm vườn :
 : : để lấy nước từ : : -Thiếu vốn để :
 : : giếng lên : : phát triển vườn :
 : : -Thiếu ánh sáng : : và trồng rừng :
 : : cho các h/dộng : : -Tính dụng (vay):
 : : buổi tối : : cho sản xuất tư :
 : : -Lượng củi cho : : nhân với tỉ lệ :
 : : nấu ăn gây ảnh : : trả lãi cao và :
 : : hưởng đến môi : : rất khó khăn để :
 : : trường. : : vay. :
 : : : : -Kế hoạch hóa :
 : : : : gia đình :

; Cấp xã : : -Chất lượng : : -Thủy lợi chưa :
 : : trường học xấu : : đáp ứng đủ nhu :
 : : -Chất lượng : : cầu tưới :
 : : công và cầu : : -Thiếu vốn để :
 : : trên các tuyến : : tổ chức chợ :
 : : trục thôn tối : : -Chưa tận dụng :
 : : -Chất lượng : : tốt tiềm năng :
 : : các phai xấu : : đất lâm nghiệp :
 : : và thiếu phai : : (đất hoang :
 : : cho tưới tiêu : : ; còn nhiều) :
 : : : : -Ngành nghề :
 : : : : kém phát triển :

: Các ưu : -Nâng cao chất : -Xây dựng ; -Tổ chức hệ thống
 : tiên : lượng nhà ở(XD): trường học : tín dụng :
 : : : -Nâng cao chất : :
 : : : lượng công : :
 : : : -Nâng cao chất : :
 : : : lượng phai : :
 : : : : :

TIEM NANG VA HUY ĐONG NANG LUC O XUAN VIEN

: \Lĩnh vực:	Xã hội	: Tự nhiên:	Môi trường:	Lắp đặt	: Tiềm năng:	Tiềm năng
: \	:	:	: xây dựng	: cơ bản	: con người:	kinh tế
: Cấp \	:	:	:	:	:	:
: Cấp gia	:-Sự giúp	:	:	:	:-Qui mô	:+Diện tích
: đình	:dỡ lẫn	:	:	:	:gia đình	:lô đất lớn
:	:nhau	:	:	:	:6-7 người:	là tiềm
:	:	:	:	:	:-Lao động:	năng cho
:	:	:	:	:	:chính/hộ	:phát triển
:	:	:	:	:	:2-4 người:	kinh tế GE
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:	:	:	:	:	:	:số hộ biết
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: Hộ giàu	:	:	;+Nhà xây	:+Xe cải	:+Lao động:	Để dùng
:	:	:	:tường gạch:	tiền	: giới:	:(đ/năm)
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:	:	:	:nước, xí	:lúa	:-Làm vườn:	:
: Hộ trung	:	:	:+Nhà tường:	:+Xe cải	:	:
: bình	:	:	:đắp đất,	:tiền (1 số:	:	:200.000 -
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:	:	:	:+Giếng,vai:	:+máy tuốt	:	:
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:	:	:	:	:hộ)	:	:
: Hộ nghèo	:	:	:+Nhà tường:	:	:+ Lao	:+Tiết kiệm
:	:	:	:phên tre,	:	:động kém	:không đáng
:	:	:	:mái lá cọ	:	:	:kể
:	:	:	:+ Xí, vại	:	:	:
:	:	:	; nước	:	:	:
: Cấp xã	:+Giúp đỡ	:+Đất phù	:+Trường học:	:+Hệ thống	:+lãnh đạo:	:+Ngân sách
:	:trong hàng:	hợp làm	:+Trạm xá	:thuỷ lợi	:đ/phương	:20% tổng
:	:xóm láng	:VLXD	:+Ủy ban xã:	(chưa đáp	:trẻ, năng:	ngân sách
:	:giếng	:+Diện tích:	:+Đường	:ứng yêu	:động, có	:cho XDCB
:	:+Ban điều:	đất trồng:	:	:cầu)	:trách	:+Hỗ trợ
:	:hàng xã	:cây lâm n:	:	:+ Kho	:nhiệm	:vốn của
:	:cho tất cả:	:+Suối	:	:	:+ 10 và 5:	huyện, tỉnh
:	:các hoạt	:+Cát vàng:	:	:	:công LĐ	:
:	:động —	:	:	:	:nghĩa vụ	: