

駐越 韓國農業技術團의 水利班 活動

The activities of Irrigation Team, Korean Technical

Group to Viet-Nam

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GENERAL

Viet-Nam has fertile land and plentiful water resources. People of Viet-Nam has an agricultural outlook. They look upon farming as a good life.

The important problem of South Viet-Nam is the restoration of peace so that economic development on sound line may proceed at the desired pace, when the following problems will be solved:

- 1-Lack of irrigation and drainage engineer.
- 2-Lack of land and water data.
- 3-Shortage of development fund for irrigation.
- 4-The organization of local irrigation association will be established that can handle the operation and maintenance of irrigation, drainage system efficiently.
- 5-Improvement of the national land policy etc.

The land improvement work of irrigation, drainage, and protection of salt water intrusion has been recognized as a prerequisite for successful agriculture, particularly the double-cropping of rice and the diversification of crops.

South Viet-Nam can be divided into three main natural regions based on the climate, soil, and relief conditions; the Delta, the Highlands and the Central Coastal Low land.

IV-1. Mekong Delta Region.

Total acreage of Delta :	3,700,000ha
Total acreage cultivated :	2,100,000ha
Total cultivation in 1967:	1,700,000ha
Rice cultivation in 1967:	1,560,000ha

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a) Upper part of Delta area :

This area be reclaimed mostly by the protection from flood damage.

b) Central part of Delta area :

This area be improved mostly by the drainage system.

c) Lower part of Delta area :

This area be improved mostly by the protection from salt water intrusion.

Improvement of irrigation system will be needed for all over the Mekong Delta area.

IV-2. High land region :

Most of this portion of region consists of hilly, forest land with some general cultivation in the stream valleys and lower slopes and some rather extensive tea gardens on hilly land. Rubber, vegetable, frutes grow well in this region with irrigation.

Proposed projects of two big scale are located in this region.

IV-3. Central coastal lowland.

There is vast area of tillable land, much of it of good quality. However the region does not produce enough rice for its own use and depend in part on shipments from Mekong Delta. Cash crop will be expected to make additional income for the farmers because of the small acreage of farm land in this area. More yield per ha from existing arable land is a most important problem with irrigation in this region.

ACTIVITIES OF IRRIGATION TEAM

I. Korean Irrigation Team and its Locations

<u>Duration</u>	<u>No. of Specialists</u>	<u>Assigned to</u>	<u>Locations</u>
From March 1967	3	DIRE H.Q	Saigon
To March 1968	2	Nha-Trang Sector	Nha-Trang
From April 1968			
To 1968	1	Nha-Trang Sector	Nha-Trang
From Aug. 1968	3	DIRE H.Q.	Saigon
To Sept. 1968	3	Nha-Trang Sector	Nha-Trang
From Sept. 1968	5	DIRE H.Q.	Saigon
To Nov. 1968	3	Nha-Trang Sector	Nha-Trang
From Dec. 1968	7	DIRE H.Q.	Saigon
To March 1969	5	Nha-Trang Sector	Nha-Trang
From April 1969	5	DIRE H.Q.	Saigon
To Aug. 1969	5	Nha-Trang Sector	Nha-Trang
From Sept. 1969	7	DIRE H.Q.	Saigon
To March 1970	3	Nha-Trang Sector	Nha-Trang
From April 1970			
To present 1970	8	DIRE H.Q.	Saigon

(From April 1970-To Nov. 1970 present).

<u>Project</u>	<u>Location</u>	<u>Proposed work</u>	<u>Benefited Area</u>	<u>Remarks</u>
Kien-Hoa	Kien-Hoa Prov.	Culvert (m) 1.5×12 1.2×4	17,000 ha 1,000	New design, construction will be made by U.S. Army Eng.
Lam-Cam Dam	Phan-Rang Prov.	Diversion intake gate (m) 3.0×1.0×285	1,000	Repairing works of existing Dam.
No. 1 Check gate in Phan-Rang	"	Cheek gate (m) 1.7×3.15×3	6,000	Repairing work of existing gate.

I. Work participated.

The Korean Irrigation Team has been accomplished the following works:

- 1-Development of irrigation water resources and construction supervision there of: Reconnaissance and design.
- 2-Preparation of the design standard of canal structures. This will be used by local engineers of DIRE.
- 3-Meteorological Data collection and analysis.
- 4-Preparation of the monograph of hydraulics and hydrology.
- 5-National watershed study for the inventory of land water resources.

II. Project designed

(From March 1967-To March 1970)

<u>Classification</u>	<u>No. of Projects</u>	<u>Benefited area(ha)</u>	<u>Increased Yield(M/T)</u>
Reservoir	2	750	750
Diversion Dam	18	11,017	11,017
Pumping station	7	6,242	6,242
Others	20	22,902	22,902
Total	47	40,101	40,101

Project	Location	Proposed work	Benefited Area	Remarks
Ba-Giang	Go-Cong Prov.	Drainage culvert. Earth work	1,750	Revised design of original drawing.
Nha-Ho	Phan-Rang Prov.	Canal pumping station.	500	Agr. Experimental station. Reconnaissance and its report.
Cong-Tac	Tuy-Hoa	Replacement of check gate with drops.	1,000	
Rach-Goc	Ba-Xuyen	Reparing of existing culvert.	10,000	
Phu-Tuc	Phu-Yen	New establishment of earth dam.	50	
Tinh Ba-Xuyen	Ba-Xuyen	Irrigation canal, drain canal, bridge and pumping station.	2	Demonstration farm.
Quang-Ngai	Quang-Ngai	Intake weir	4,000	Fixed weir (concrete) gate weir 1/2 wood. 1/2 concrete.
Rach-Goi	Ba-Xuyen	Earth dam. drainage sluice gate		Modification of existing miter gate.
Sugar Cane Center	Binh-Duong Province	Sprinkler irrigation project.	5	Demonstration and experimental purpose.
Hue tidle land	Hue	Sea-dike	450	Drainage canal. Gate pumping station Land rearrangement.

Other works.

Don Cam	Tuy-Hoa	Maintenance of canal.		
Diversion intake gate.		18 kinds		
Technical guide line preparation		Determination of pump capacity.		
Water study delineation of watershed on 1:50,000 topo. map.		Acreage calculation for 215 watershed. Watershed delineation 32.		

(From March. 1967 To March 1970)

<u>Classification</u>	<u>No. of projects</u>	<u>Benefited area</u>	<u>Increased Yield(M/T)</u>
Diversion Dam	10	3,280	3,280
Others	3	900	900
Total	13	4,180	4,180

V. Design standard of canal structure

This design standards intend primarily to use of irrigation and drainage works by local engineers

D.I.R.E.

1-Check

Spindle type	14kinds
Stop log type	12kinds
Total	26kinds

2-Culvert

Small type (A)	8kinds
(B)	8kinds
Large type	16kinds
Total	32kinds

3-Farm Bridge

Max. Load 300kg/m ²	4kinds
Max. Load 500kg/m ²	10kinds
Total	14kinds

4-Stilling Basin

Monograph	15sheets
Determination of dimension	8sheets
Total	23sheets

5-Meteorological data collection and its analysis.

From 1952 to 1966 for 15 years of meteorological data collection and its analysis of the daily and hourly rainfall and frequency were calculated

VI. National watershed study for the natural inventory of land and water resources in Viet-Nam.

According to the suggestion by Director of Irrigation and Rural Engineering, the preliminary study of national river basin by watershed unit has been carried out

1-Delineation of sub-watershed, watershed and river basin unit on the topo map of 1/50,000

2-Land classification of present use.

3-Hydrological and meteorological data collection and its analysis on the watershed unit.

CONCLUSIONS

I-Viet-Nam has abandoned natural land and water resources. The development of these natural resources is an urgent problem for strengthening the national economy and raising the living standard of the people.

II-Four facts are evident for the development of these resources.

1-Irrigation: Will increas the crop production on the presently cultivated lands and allows the cultivation of additional lands.

2-Drainage flood control and the control of salt water intrusion Will reclaim large area now totally or partially cultivated.

3-Extention of arable land and good land use: Correct land use and reclamation of large area in the forest or tidle land.

RECOMMENDATIONS.

1-On the review of irrigation work in Viet-Nam, it is recommended that.

1-Irrigation and other land improvement projects urgently needed to be given superiority by the national policy.

2-The large number of irrigation engineers should be trained urgently.

3-Increase more Korean Irrigation Specialists for the preparation of irrigatio, work in the restoration of peace.

4-Establishement of local irrigation Association.

5. Fundamental investigation of existing irrigation system for O & M Problems.

<編輯部 註>

本稿는 駐越韓國農業技術團 水利班의 寄稿로 1967年 派越初期부터 最近(1970年末)까지의 活動狀況을 記錄한것이다.

全員8名이 本學會 正會員으로 構成된 韓國農業技術團水利班은 本記錄에서 볼수있는 바와같이 越南全國에 걸친 農地改良事業의 設計 工事監督을 直接 擔當하거나 指導하고 있다. 此外에도 全國의 可耕地 및 水利施設適地調査, 水文氣象資料調査 및 分析, 水利構造物設計基準作成等 幅 넓고 多様な 技術業務活動을 通하여 戰禍속에 있는 越南의 復舊를 크게 돕고있다.