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BASIC DESIGN STUDY
ON
THE PROJECT
FOR
STRENGTHENING
THE AGRICULTURAL TRAINING INSTITUTE(ATI),
NATIONAL AND REGIONAL TRAINING CENTERS
IN
THE REPUBLIC OF THE PHILIPPINES

JULY 1991

JAPAN INTERNATIONAL COOPERATION AGENCY



PREFACE

In response to a request from the Government of the Republic of the Philippines, the Government of Japan decided to conduct a basic design study on the Project for Strengthening the Agricultural Training Institute (ATI), National and Regional Training Centers and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to the Philippines a study team headed by Mr. Hiroshi HASEGAWA, Deputy Director of Extension and Education Division, Agricultural Production Bureau, Ministry of Agriculture, Forestry and Fisheries from January 31 to March 1, 1991.

The team held discussions with the officials concerned of the Government of the Philippines, and conducted a field study at the study area. After the team returned to Japan, further studies were made. Then, a mission was sent to the Philippines in order to discuss a draft report and the present report was prepared.

I hope that this report will contribute to the promotion of the project and to the enhancement of friendly relations between our two countries.

I wish to express my sincere appreciation to the officials concerned of the Government of the Republic of the Philippines for their close cooperation extended to the teams.

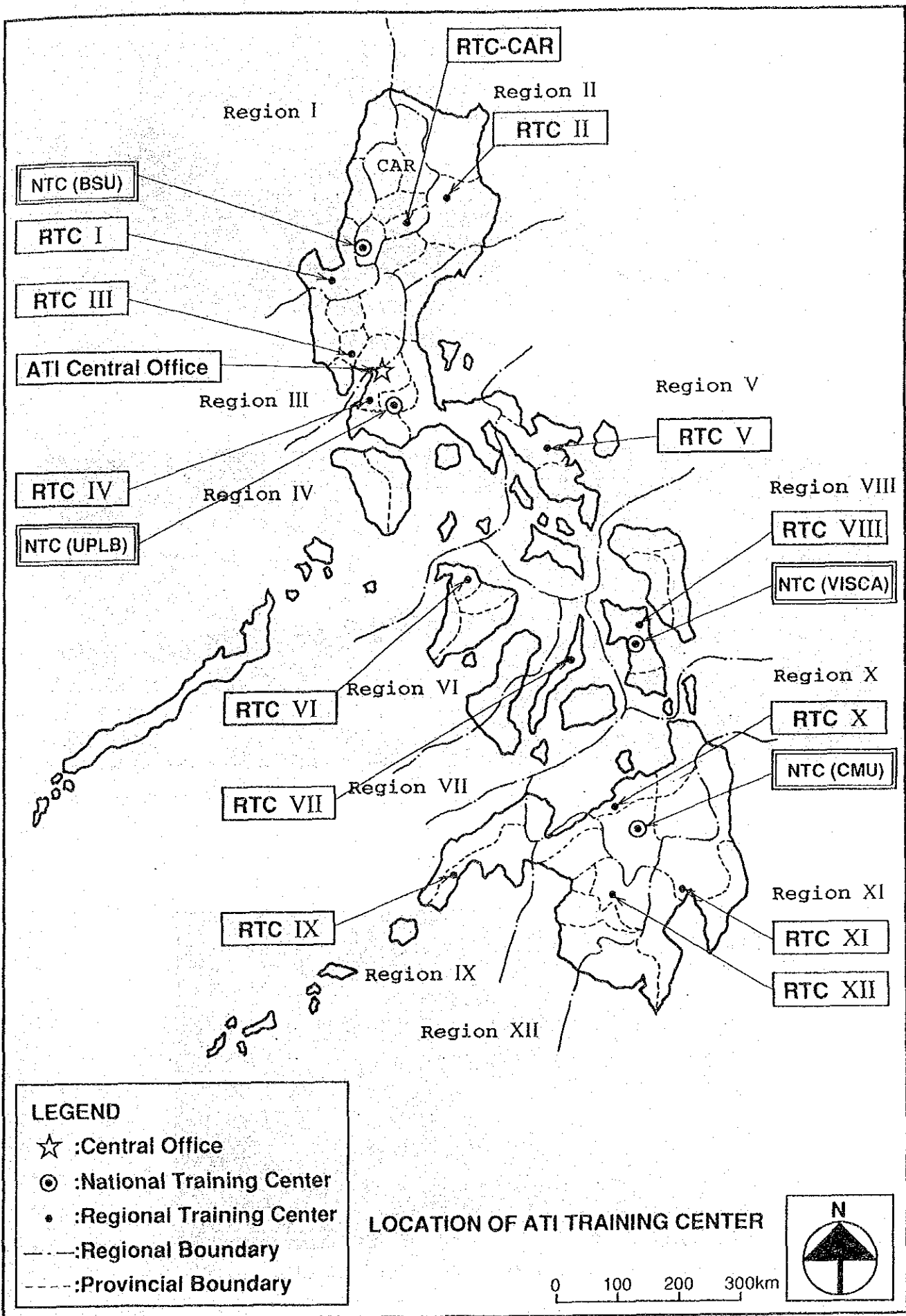
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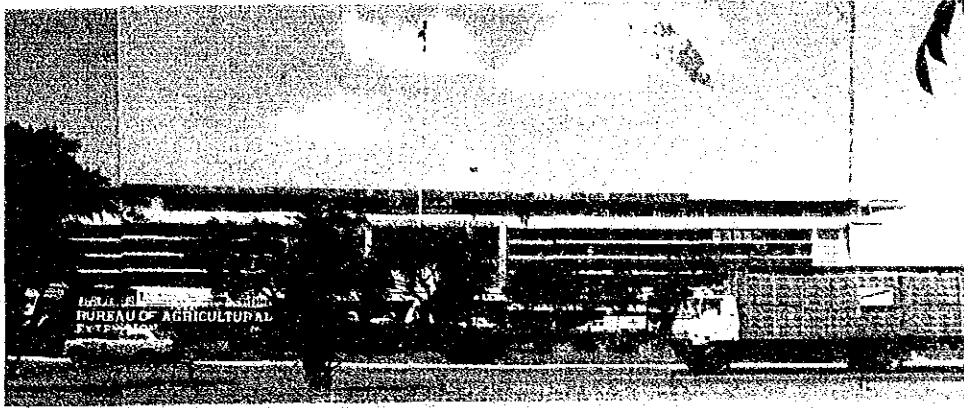


Kensuke Yanagiya

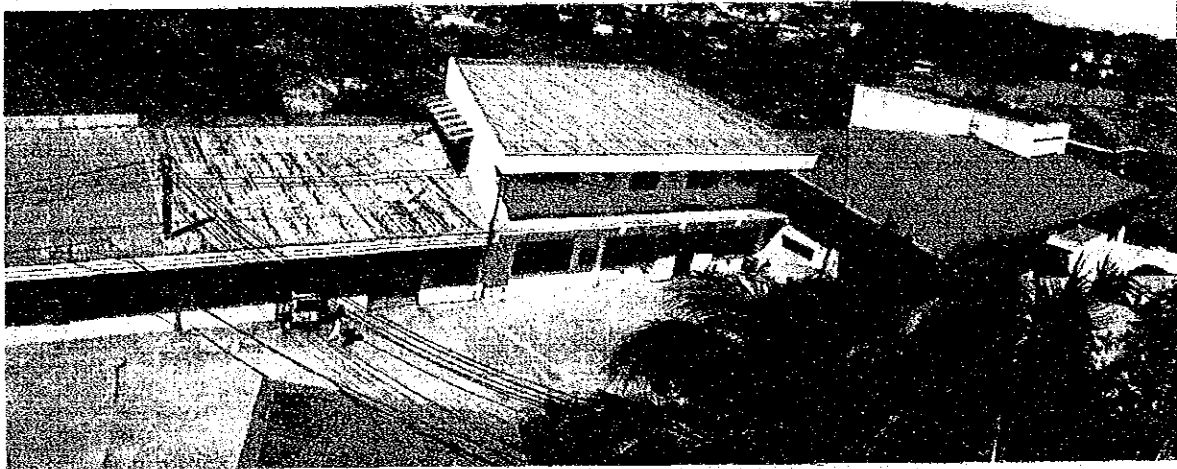
President

Japan International Cooperation Agency





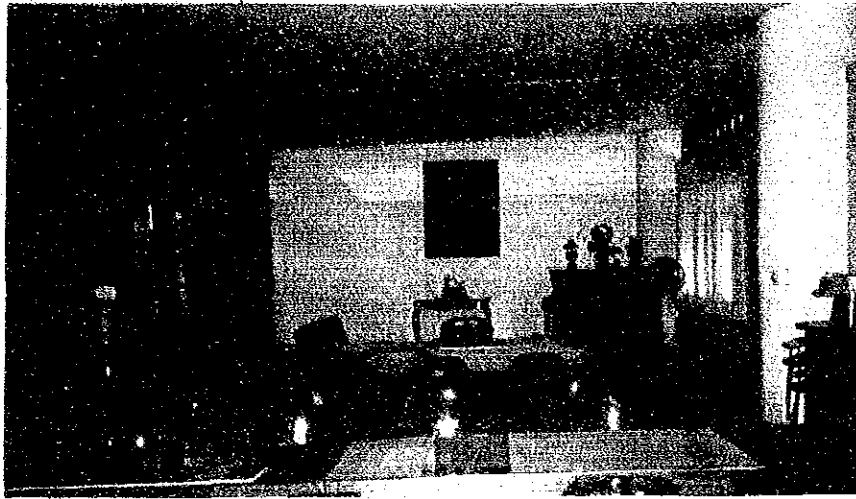
ATI Central Office: Main building



ATI Central Office: Printing building (center), Audio-visual production building (right)



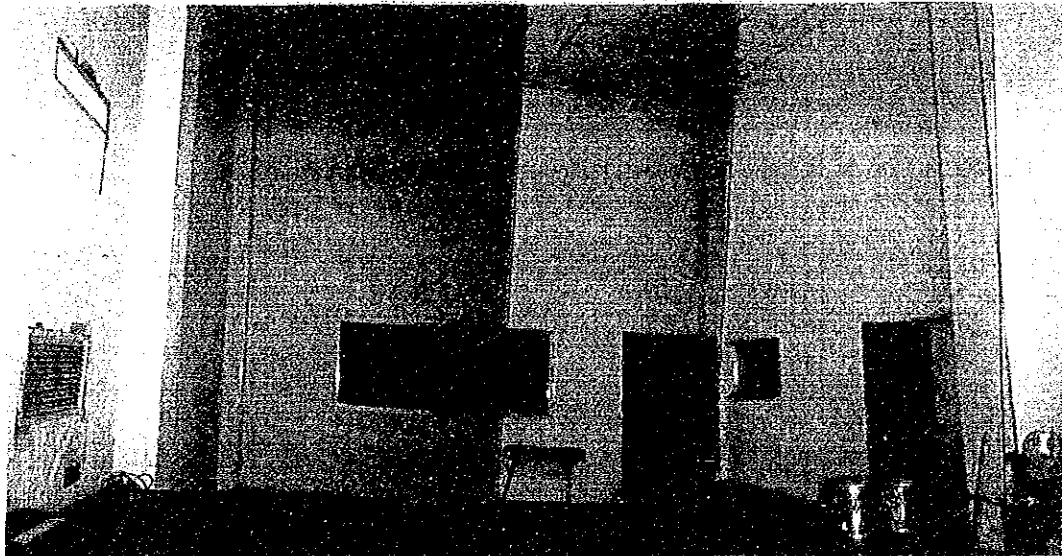
ATI Central Office: Existing offset machine in the printing building



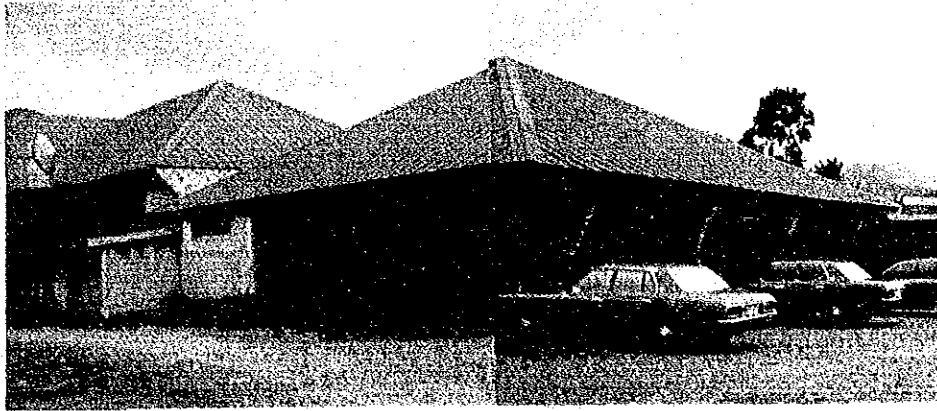
ATI Central Office: Planned 80 seaters training room in the main building



ATI Central Office: Planned 60 seaters training room in the main building



ATI Central Office: Existing studio in the audio-visual production building



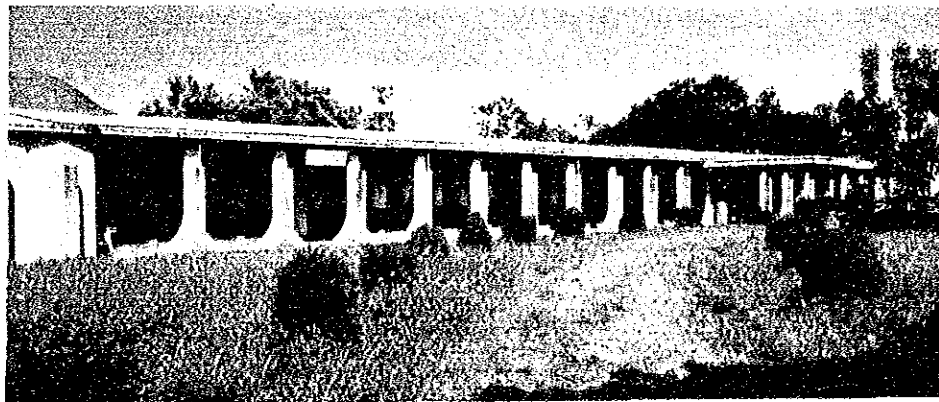
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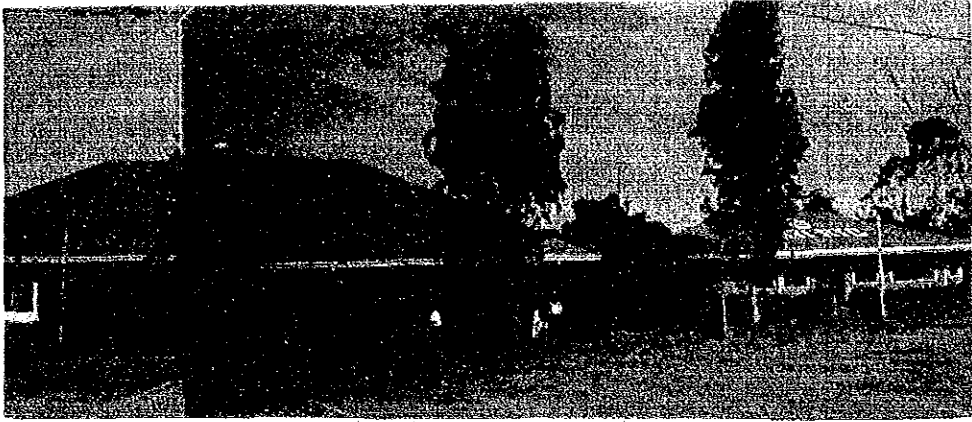
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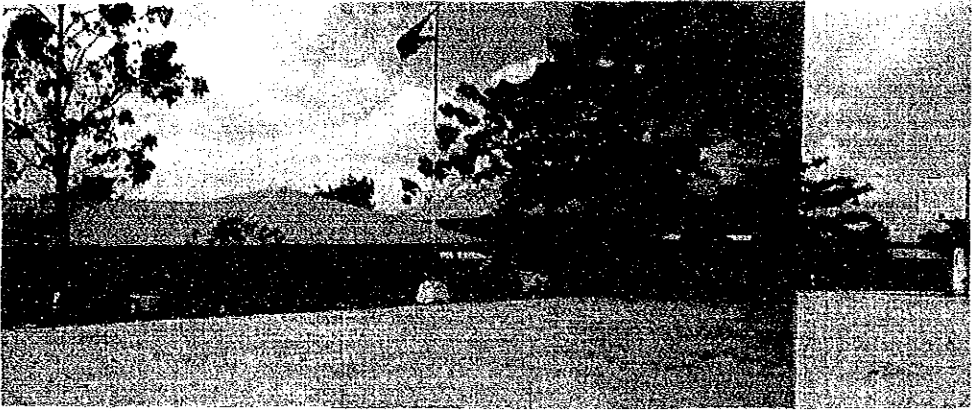
Visayas-NTC (VISCA)



Mindanao-NTC (CMU)



RTC-1 (Pangasinan)



RTC-2 (Isabela)



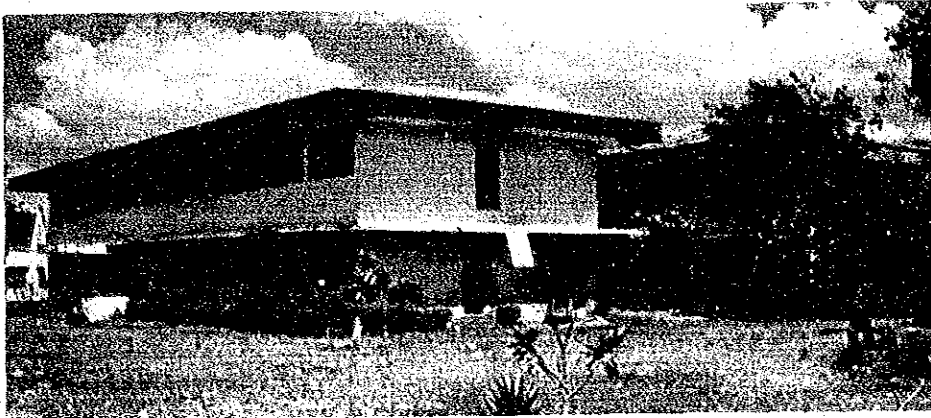
RTC-3 (Pampanga)



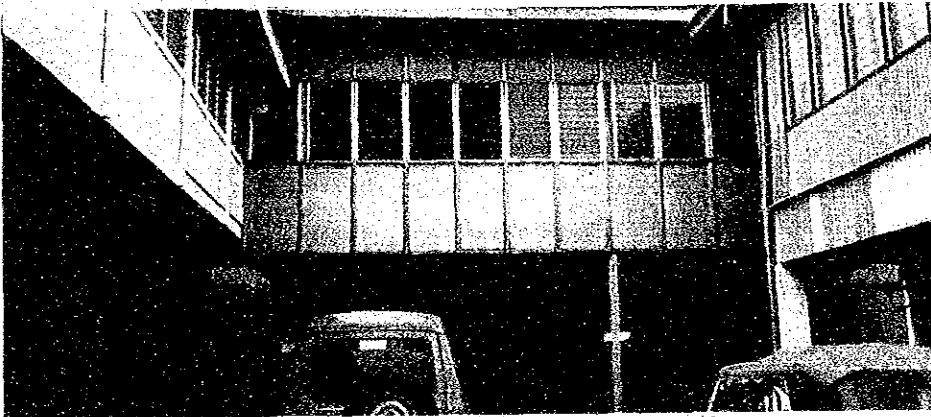
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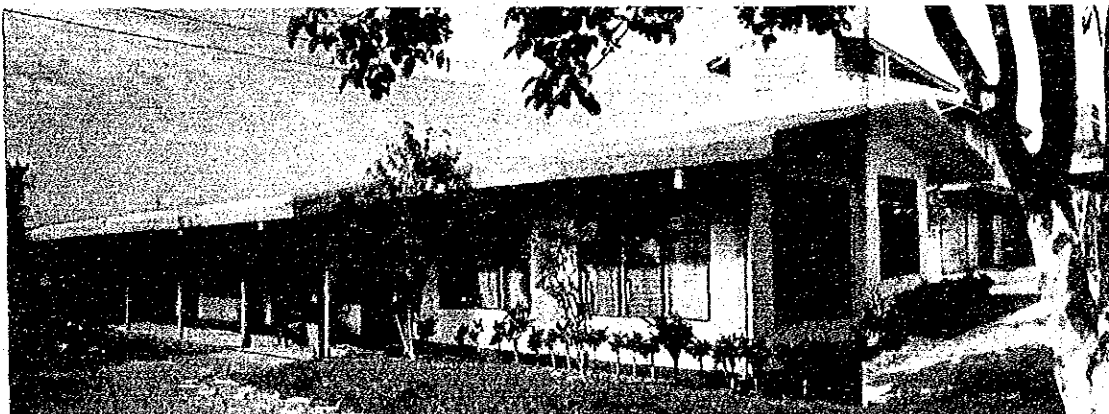
RTC-5 (Camarines Sur)



RTC-6 (Aklan)



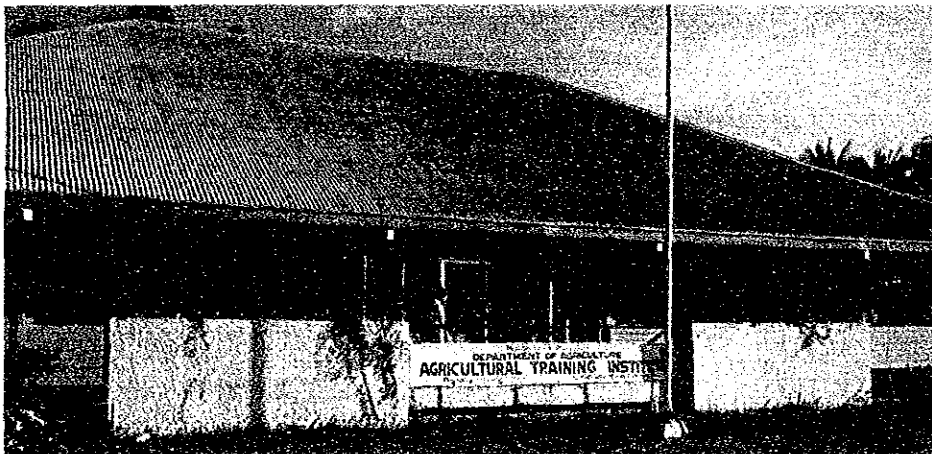
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RTC-8 (Leyte)



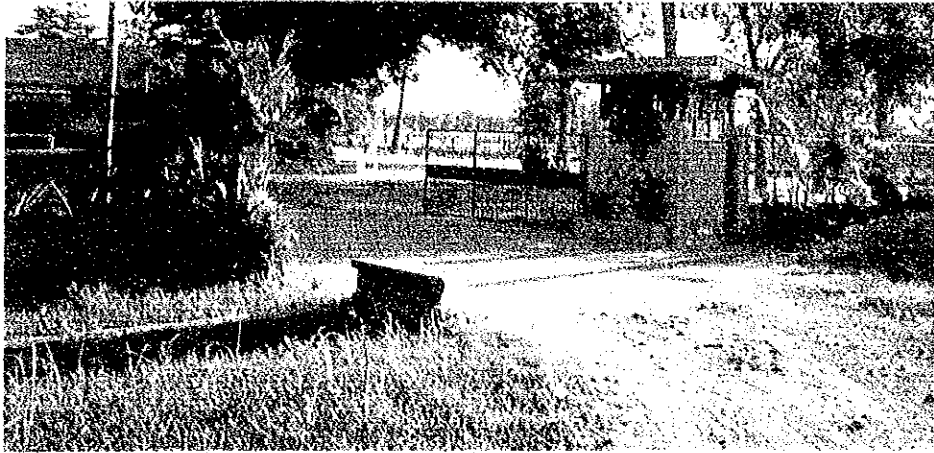
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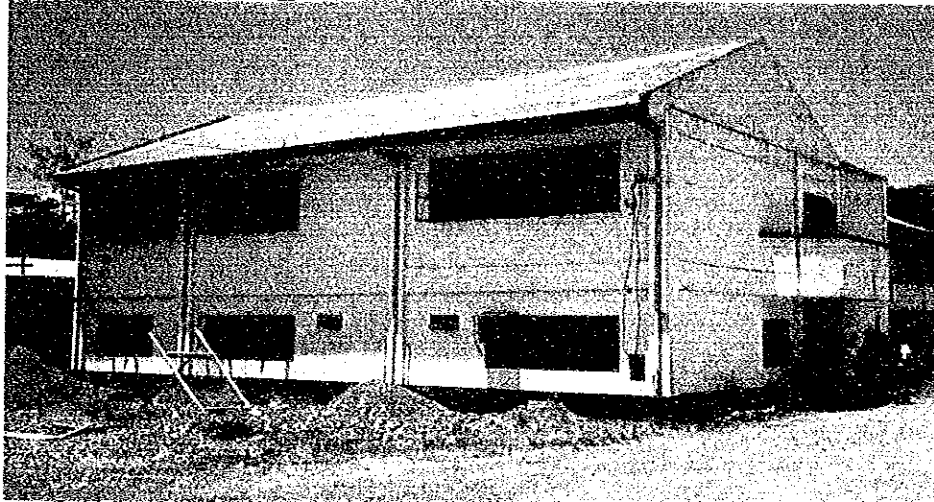
RTC-10 (Misamis Oriental)



RTC-11 (Davao del Norte)



RTC-12 (North Cotabato)



RTC-CAR (Ifugao)

SUMMARY

SUMMARY

The Government of the Republic of the Philippines formulated the Medium-term Philippine Development Plan 1987-1992 in December 1986 to commence a new national development plan under the Aquino administration. The goals of the Plan are: to alleviate poverty, to create productive employment, to promote equality and social justice, and to attain stable economic growth. In December 1990, the Department of Agriculture (DA) instituted the Philippine Agricultural Development Plan (1991-1995) based on the goals of the aforementioned medium-term development plan. The following is a brief outline of the objectives which will be pursued.

1) Alleviate Poverty

The objective is to reduce the poverty rate of the rural population from 50 percent in 1988 to 40 percent by 1995. Furthermore, efforts will be made to increase the average monthly income of the rural population to more than 3,697 pesos by 1992, which is the average monthly income for families within the poverty line for that year.

2) Productivity Target

The objective is to increase value added agricultural production from 1990 to 1995 by 4.3 percent annually in conjunction with an annual increase of 5.1 percent in agricultural production volume.

3) Agricultural Priority Products

The ten agricultural products which will be promoted as priority products by the Department of Agriculture are as follows: rice, corn, coconuts, sugar, livestock and poultry, fisheries and aquaculture, tobacco, fiber, fruits and vegetables, and ornamentals.

4) Policy Reforms and Legislation

The DA will institute policy and legislative reforms by 1992 in the area of policy making, implementation, monitoring, etc. by farmers; investments in basic infrastructure and services for agricultural production and distribution; tariffs on agricultural inputs; and reduced government intervention on agricultural product distribution of commodities other than rice and corn.

The Government of the Philippines is decentralizing and regionalizing government administrative agencies while pursuing the goals set forth in the Medium-term Philippine Development Plan. Agricultural administrative authority has also been transferred to the regional, provincial, and municipal DA offices. Administrative duties are under the jurisdiction of the Regional Director of DA, each provincial and municipal agricultural officer, and their administrative staff. Agricultural extension services have also been decentralized and specialists and extension workers carry out their activities under the management of each regional director or provincial, municipal agricultural officer.

However, due to the lack of experience on the part of the administrative staff, specialists, and extension workers at the regional, provincial, and municipal levels to carry out their newly appointed tasks under decentralization, there has been a strong demand for direct DA guidance/training in agricultural policy making and implementation. Therefore, it became necessary to institute an agency to cope with this situation.

Consequently, the Bureau of Agricultural Extension (BAEx), Philippine Agricultural Training Council (PATC) and Philippine Training Center for Rural Development (PTC-RD) were merged into the Agricultural Training Institute (hereinafter referred to as ATI) in 1987 in accordance with Executive Order No.116.

With the creation of ATI, tasks related to agricultural extension were divided into two areas; agricultural extension service and agricultural extension training and education. Agricultural extension service per se was relegated to the responsibility of the regional, provincial, and municipal agricultural offices; and the ATI Central Office and its regional training centers were given the

responsibility of overseeing agricultural extension training and education.

The goals underlying the creation of ATI were: to establish a high caliber ATI network for educational extension training; to upgrade the skills of agricultural extension officers, specialists, and extension workers; and to increase the impact of agricultural extension services for farmers, and thereby, decrease agricultural production costs, establish agricultural production systems, increase agricultural productivity, etc. of the rural economy.

This Project will provide training equipment to the ATI Central Office, four National Training Centers (NTC), and 13 Regional Training Centers (RTC) and will undertake renovation work of a segment of the facilities at the ATI Central Office. This is based on an official request of the Government of the Philippines for a grant aid from the Government of Japan.

In compliance with the official request, the Japanese government conducted a basic design survey for reinforcing agricultural extension education facilities by dispatching the Japan International Cooperation Agency (hereinafter referred to JICA) basic study team to the Philippines from January 31 to March 1, 1991.

JICA basic design study team, headed by Hiroshi Hasegawa, Deputy Director of the Extension and Education Division, Agricultural Production Bureau, Ministry of Agriculture, Forestry and Fisheries, was sent to the Philippines to conduct final deliberations and to confirm the content of the basic design report from July 3 to July 10, 1991.

The Project will be implemented by the ATI. The Project content will focus on providing equipment to the ATI Central Office and its training centers and on renovating portions of the existing ATI Central Office buildings. The Project will supply equipment which will be able to produce and support training media, education, and training.

Presently, the ATI network is composed of four (4) National Training Centers, 13 Regional Training Centers including the CAR (Cordellera Autonomous Region) Regional Training Center, 24 Farmers Training Centers (FTC), and one (1) International Training Center on Pig Husbandry.

ATI Central Office and its network are mainly concerned with

educational and training programs in agricultural extension for the staff of the Department of Agriculture and its attached agencies. The National Training Centers conduct training courses for middle level officers of agricultural-related regional government agencies; the Regional Training Centers carry out training programs for extension workers and the farmer leaders; and the Farmers Training Centers provide direct trainings for farmers.

The objective of the Project is to strengthen the entire ATI network, with the exception of the Farmers Training Centers, by providing equipment to all of the aforementioned centers and implementing renovation work for ATI central office buildings.

Equipment which will be provided by the Project is shown in the following table.

EQUIPMENT

I. Audio Visual Equipment

- A. ATI Central Office: studio equipment, post-production equipment, outdoor production van and equipment, AV training equipment, others.
- B. Each Training Center: portable audio system equipment, portable sound system equipment, video camera set, video playback system, AV equipment for AV van (RTC), others.

II. Printing Equipment

- A. ATI Central Office: lettering & sketch making equipment, processing & plate-making equipment, printing machine (two colors offset press, baby offset press), others.
- B. Each Training Center: lettering & sketch making equipment, mimeograph machine (stencil scanning machine, mimeograph machine), others.

III. Information Processing Equipment

Personal Computer (ATI Central Office, each training center)

IV. Information Communication Equipment

Wireless facsimile machine (ATI Central Office, each training center)

V. Support Vehicles

- A. Mini bus (large) (ATI Central Office, each training center)
 - B. Mini bus (small) (ATI Central Office)
 - C. AV Van (RTC)
-

VI. Demo Farms/Enterprise Laboratory Equipment

- A. Demo Farms Equipment (each training center):
Hand tractor set, 4WD tractor set, pump with engine, others.
- B. Enterprise Laboratory Equipment (ATI Central Office, RTC):
Food processing machine, others

VII. Training Furniture/Fixtures

- (ATI Central Office, each training center):
Desks, chairs for training rooms and others

VIII. Renovation (ATI Central Office only)

- 1. Audio Visual Production Building: Video studio, Video master control room, Announcer's booth, Audio master control room, Editing room (1), Editing room (2), VTR dubbing room, Slide editing room, Video preview room
 - 2. Printing Building: Printing room, Dark room
 - 3. Main building: training room with 80 seats Enterprise lab, Equipment storage 1, training room with 60 seats, Equipment storage 2
-

The ATI budget which consists of two (2) funds from DA and the outer finance resources, has increased continuously since ATI's establishment. Although the budget allocated from the Department of Agriculture for the year 1991 was reduced by 18 percent from that of the previous year, it does not mean that the ATI budget is on decrease. This 18 percent decrease is because personnel costs of Farmers Training Centers were cut from ATI budget following the expected transfer of the Farmers Training Centers to the jurisdiction of the provincial governments under the national policy of decentralization. Moreover, in 1991 the budget for training programs and operation and maintenance costs for ATI allocated by the Department of Agriculture increased. Therefore, it has been concluded that the current budget is sufficiently able to meet operational costs of each training center.

As part of the responsibilities to be fulfilled by the Philippine government for the Project, ATI will build storage rooms and garage facilities, upgrade the skills of its staff members, and meet operation and maintenance costs of the new equipment. It has appropriated 700,000 pesos in its 1991 budget to cover these costs for the Project. However, according to the results of this survey, ATI will need approximately four times this amount in additional funds in order to implement this Project. The need to procure these additional

funds has been recognized by ATI.

Supervision and operation of the Project will be carried out by ATI Central Office and each training center. The equipment to be provided by the Project will not require the training centers to hire new employees for maintenance and control of the equipment. The grade and scope of the new equipment will allow existing staff members to maintain and control the equipment.

Project implementation period will require about 11.3 months (4.0 months for implementation design and 7.3 months for equipment purchasing and renovation work).

Direct beneficiaries of this Project are the agricultural extension workers, agricultural specialists, agricultural officers of each regional, provincial, and municipal agricultural office and their staff members, farmers' leaders, etc. According to the program of activities of ATI for 1991, there is a total of about 27,000 participants in both the ATI and Comprehensive Agrarian Reform Program (CARP) training programs. The indirect beneficiaries of these training programs are the farmers, their wives, and out-of-school rural youth. The Project will greatly help improve farmers' incomes. Therefore it has been concluded that the Project can be appropriately implemented under the Japanese grant aid program.

Measures to be undertaken by the Philippine counterpart with regard to Project implementation are the following:

1. ATI will invite guest instructors as part of their training programs. However, since there is no proper audio video equipment currently available at the Institute, the lecturer will be required to have the knowledge and skills to effectively utilize the audio visual equipment provided by the Project in order to enhance the effectiveness of the training programs.

2. Participants in the ATI training programs within its network will be chosen according to each central, regional, and farmers training center. However, in actuality, ATI training centers follow tasks of PTC-RD whose function was similar to that of Farmers Training Centers, and the training centers in this Project are providing training programs for participants of Farmers Training Centers. Therefore, it is necessary that training programs for PTC-RD related farmers be

conducted at Farmers Training Centers in order for each training center in this Project to pursue the original goals.

3. Dispatch of experts on agricultural extension training method and training material production is requested by the Government of the Philippines in order to improve the effectiveness of extension training. However, further study will be necessary on the request.

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1. INTRODUCTION

1. INTRODUCTION

The Republic of the Philippines has been promoting and implementing agricultural training and extension work for farmers who comprise 70 percent of the total national population for many years. However, the income disparities between the rural and urban areas continue to grow; rural poverty has not been alleviated; and the effects of agricultural training and extension services are not adequately reflected in the rural economy.

In 1987 the Bureau of Agricultural Extension (BAEx), Philippine Agricultural Training Council (PATC), and Philippine Training Center for Rural Development (PTC-RD) were merged into the Agricultural Training Institute (ATI). The objectives of this merger were to improve the technical level of the agricultural extension workers; to reduce agricultural production costs; to increase agricultural productivity by establishing an agricultural production system; and to help elevate the national economy by upgrading the rural economy. In order to achieve these objectives, the ATI is currently solidifying the network between the national, regional, and farmer's training centers.

The Project is requested by the Government of the Philippines to the Government of Japan for a Grant-in-Aid to strengthen the ATI Central Office, the National, and Regional Training Centers by renovating facilities and installing training equipment.

In response to this request by the Government of the Philippines, the Government of Japan conducted a basic design survey on "Strengthening the ATI Central Office, National and Regional Training Centers". The Japan International Cooperation Agency (JICA) dispatched the basic design study team headed by Mr. Hiroshi Hasegawa, Deputy Director of the Extension and Education Division, Agricultural Production Bureau, Ministry of Agriculture, Forestry and Fisheries, to the Philippines from January 31 to March 1, 1991. This study team confirmed the background and the objective of the request and explained the system of Japanese grant aid to the Philippine authorities. In addition, responsibilities to be met by each government were confirmed; and a survey was made on the infrastructure of the areas surrounding the project sites as well as the existing conditions of agricultural extension and education in the Philippines.

Upon returning to Japan, the basic study team studied and analyzed survey data, evaluated the purpose and viability of the Project, and formulated the most appropriate basic plan for equipment and renovation of buildings, which were compiled in a draft report.

JICA made the final deliberations on the content of the report prepared by the basic design study team and dispatched a draft report mission headed by Mr. Hiroshi Hasegawa from July 3 to July 10, 1991 to explain and carry out final discussions on its contents.

This report is a compilation of the basic plan which will be implemented to provide the most appropriate equipment and renovation plan. It includes Project cost undertaken by the Government of the Philippines, evaluation, etc. Members of the study team, itineraries, and the Minutes of Discussions are attached in the Appendices.

2. BACKGROUND OF THE PROJECT

2. BACKGROUND OF THE PROJECT

2.1 Outline of Related Development Plans

2.1.1 Medium Term Philippine Development Plan 1987-1992

The Medium Term Philippine Development Plan 1987-1992 was formulated December 1986.

The objectives of the Plan is based on the premise that the alleviation of poverty is essential in preserving basic human rights and securing economic stability and are as follows:

- 1) Alleviate poverty
- 2) Generate increased productive employment
- 3) Promote equality and social justice
- 4) Attain sustainable economic growth

Moreover, creating employment opportunities is not only a catalyst in overcoming poverty, it effectively utilizes the nation's most vital asset, its human resources, which in turn, enables the nation to attain stable economic growth. Furthermore, by shifting from a socio-economic system controlled by an isolated small minority to a system based on social justice and equality, not only preserves human rights, but creates competitively viable productivity and accelerates economic growth.

In order to achieve the aforementioned objectives 1 to 3, it is necessary to decrease the population growth rate and achieve sustainable economic growth through sustainable economic recovery efforts.

The target for economic growth rate in 1992 estimated in this medium term plan is 6.8 percent, and the GNP is estimated to be about 1,438 billion pesos, and 22,378 pesos per capita.

According to this plan, agricultural development was targeted as follows:

The agricultural sector was one third of the Gross Domestic Product (GDP) of the national economy from 1983 to 1985 and was 60 percent of total exports. Moreover, the agricultural sector maintained an annual growth rate of 1.5 percent whereas all other sectors showed

a minus growth rate. Although major agricultural development programs such as Masagana 99, Maisagana and Biyayang Dagat implemented during this period contributed greatly to food self-sufficiency, they were unsuccessful in improving the farmers' real income.

The following seven clauses in agricultural policy were devised under these circumstances. Emphasis has been placed on increasing farmers' incomes through increased agricultural productivity.

- 1) Enhance small farmers' income
- 2) Sustain the increase in productivity
- 3) Effect an equitable distribution of income to production
- 4) Attain food self-sufficiency for improved nutritional well-being
- 5) Create/increase agro-based employment opportunities among the rural population, particularly the lend-lease rural workers and sustenance fishermen
- 6) Improve the delivery system for agricultural crops/commodities, farm inputs and services
- 7) Institutionalize the expanded participation of farmers through cooperatives and other farmers' organizations

In order to achieve vigorous agricultural productivity, it is necessary to reinforce comprehensive agricultural research and extension activities. The Philippine government will raise its agricultural gross added value from 0.2 percent to 1.0 percent in order to increase its agricultural research funds to the same levels as other developing countries.

In conjunction with the central government's policy to decentralize its authority to regional levels, the local agricultural offices, State Universities and Colleges, farmers' organizations, etc. in each region have been required to focus their efforts on agricultural research and extension activities. Research institutions and extension workers in particular, have been required to grasp the technical skills and ideas of farmers and to provide suitable guidance to farms under the policy of decentralization.

An accurate, timely, and cost-effective rural agricultural information network to quickly grasp the needs of farmers is necessary to effectively expedite regional development. Moreover, it is desirable that regional agricultural agencies that encourage farmers'

groups to participate in such a network, upgrade their capabilities in development planning, implementation, and evaluation of development programs.

The medium term plan was revised in 1988 to reflect:

- 1) Evaluation of achievements attained in 1987,
- 2) New priority objectives based on progress of various legislative matters under the new constitution of 1987,
- 3) New international economic developments.

Although there were no major changes in basic policy, the economic growth rate was reduced from 6.8 percent to 6.5 percent and the GNP was decreased from 1,438 million pesos to 1,349.7 million pesos. The annual growth rate for the agricultural sector was also reduced from 2.8 percent to 2.4 percent.

2.1.2 Philippine Agricultural Development Plan 1991-1995

The Philippine Agricultural Development Plan 1991-1995 was devised in October 1990, under the auspices of the new Secretary of the Department of Agriculture. The contents of this plan pursue the original government policy of improving agricultural related industries and livelihood of the rural population.

The following is a brief outline of the goals of this plan.

- Increase income and improve productivity of landless farmers and petty fishermen, particularly in poverty stricken terraced hillside and coastal areas.
- Ensure long term productivity of farming and fishery resources.
- Achieve self-sufficiency in corn and rice production to secure food supply.
- Achieve a fair trade balance.

Development targets based on the aforementioned goals are:

1) Alleviate poverty

The target is to reduce the poverty rate from 50 percent in 1988 to 45 percent by 1992 and 40 percent by 1995 (The poverty rate is determined by the monthly income of farmers. In 1992, estimated farmer income is 3,697 pesos/month.)

2) Increase production

Value added percentages in the agricultural sector will increase by 4.33 percent from 1990 to 1995. This corresponds to a 5.1 percent increase in agricultural productivity for the same period. Production rates for rice and corn will increase by 4.12 percent and 5.57 percent, respectively, in order to achieve a stable food supply; and by 1995 the nation will achieve self-sufficiency in rice and corn. Although it will be difficult to achieve self-sufficiency during this period, import of rice and corn will be limited to within 3 percent of the domestic production volume.

3) Priority agricultural products

The ten priority agricultural products selected by the Department of Agriculture are shown below.

1. Rice
2. Corn
3. Coconut
4. Sugar
5. Livestock and Poultry
6. Fisheries and Aquaculture
7. Tobacco
8. Fiber
9. Fruits and Vegetables
10. Ornamentals

4) Policy reform and legislation

By 1992 the DA will review and strive for legislation of its policies on farmer participation in policy planning, implementation, monitoring, etc., on improving the basic infrastructure of agricultural production and product distribution, reducing tariffs on farming equipment, and on limiting government intervention in production and distribution of agricultural products other than rice and corn.

According to this plan, agricultural education and extension activities will support the aforementioned policies by developing harvesting technologies through research and extension work.

The Department of Agriculture has appropriated a budget for agricultural research and extension activities for this purpose. A major part of these activities centers on installing research equipment and materials, strengthening ties with universities and agriculture related research centers, implementing extension services which reflect farmers' ideas and needs, and improving the capabilities of researchers and extension workers.

The ATI has been appointed the important task of fostering agricultural personnel who will disseminate the successful results of agricultural research.

2.1.3 Agricultural Development Plan, Extension and Training Support Service 1991-1995

The operational guidelines for agricultural extension and education is provided in the Agricultural Development Plan, Extension and Training Support Service 1991-1995 which was drawn up by the Agricultural Division of the National Economic Development Authority (NEDA). This is being utilized in ATI operations while the original guideline is being drawn by ATI itself. According to the guidelines set forth in this plan, the objectives of each DA research and extension program are: to develop the capabilities of agricultural households and rural communities and to increase the productivity and revenues of the farming villages by implementing the following four (4) support activities:

- 1) Technical assistance offers effective diagnostic services and relevant technical know-how to define and resolve problems in agricultural production, post-harvest activities, processing and distribution.
- 2) Support services to set up, manage, and carry out relevant training courses to broaden and reinforce knowledge on agricultural development, to increase and improve technical skills, and to cultivate positive work orientation among farmers and relevant organizations.
- 3) Production of instructional materials related to agricultural

extension (which include broadcasting, and other audio-visual materials).

- 4) Activities to develop a system to reinforce and guide farmers' organizations to encourage their active participation in agricultural development.

ATI is in charge of implementing agricultural extension trainings and support activities based on the objectives delineated above.

In order to carry out its duties, the ATI will focus on the following areas:

- 1) Reinforcing organization and function

- To organize the various commissions at the regional, provincial, and municipal administrative levels, and reinforce the organization.
- To reinforce planning and implementation of training programs at the regional, provincial, and municipal administrative levels.
- To establish ATI as the supervisory source for training and implementation of agricultural extension services.
- To organize ties between universities and other academic research institutions.
- To establish close collaboration in information exchange between ATI and the Department of Agriculture.
- To upgrade the capabilities of DA staff members.

- 2) Focal Activities

- To provide training in agricultural extension in order to expand production and increase productivity of priority products.
- To improve the technical and teaching skills of agricultural

extension training personnel.

3) Important Points in Implementing Activities

--To improve the agricultural technical capacity and teaching skills of the extension force.

--To promote public awareness of the agricultural sector by promoting agriculture through large scale nationwide mass media dissemination.

--To implement detailed, comprehensive extension activities by means of integrated agricultural extension teams at the municipal level.

--To provide comprehensive consultations to introduce industries relevant to agriculture/fisheries which can be practically applied.

--To plan and coordinate the training programs based on the needs of the trainees.

2.2 Outline of Conditions in Agriculture and Agricultural Extension in the Philippines

2.2.1 Current Conditions in Agriculture

Agriculture in the Philippines as an industry independent of imports, contributed largely to the national economy. The ratio of agriculture and the nation's GNP grew from 18 percent in 1984 to 21 percent in 1987. In 1988 the agricultural sector comprised 17 percent or 1,400 billion pesos of the nation's GNP of 8,238 billion pesos.

Under Executive Order No.116, the Ministry of Agriculture and Food was renamed the Department of Agriculture in 1987. It was given various mandates to accelerate food production in order to achieve food self-sufficiency.

Agricultural statistics for 1989 which reflect current conditions in agriculture are given below.

- Cultivated land area: 12.3 million ha. (41 percent of total national land area) as of 1978.
- Gross production volume: About 29 million tons (81 percent for domestic consumption, 19 percent for exported commercial crops) as of 1987.
- Gross production costs: About 843 billion pesos (76 percent for domestic crops and 24 percent for exported commercial crops) as of 1987.
- Major food crops: As of 1987, rice (cultivated land area: 3.4 million ha., production volume: 8.96 million tons, total production costs: 255 billion pesos), corn (cultivated land area: 3.56 million ha., production volume: 4.02 million tons, production costs: 1.09 billion pesos), fruits and nuts (cultivated land area: 523 million ha., production volume: 6.82 million tons, production costs 1.38 billion pesos), root crop vegetables, beans, coffee, cacao, peanuts, etc.
- Livestock and poultry production: As of 1988, 289 million carabao, 170 million cattle (including dairy), 758 million swine, 212 million goat, 60.49 million chicken, 586 million duck, etc.
- Farming wages: As of 1987, average wage 32.43 pesos/day, 35.36 pesos/day for coconut farm workers, 28.01 pesos/day for corn workers.

2.2.2 Activities Related to Agriculture

(1) Projects and Activities Implemented by the DA

An outline of the projects implemented by the DA in 1987 is given below.

a) Program and project for disadvantaged groups

-- Highland Agricultural Development Project:

A \$26.9 million project to minimize the disparities between the lowland and Cordillera highland agriculture.

-- Rainfed Resources Development Program:

A \$14.85 million nationwide project to develop the capabilities of rural society to manage land and water resources in farming and fishing villages.

-- Community Employment Development Program:

A program to create employment opportunities through nationwide regional development projects.

-- National Reconciliation Development Program:

A program to boost rural incomes and provide employment opportunities in insurgency affected villages.

b) Resource conservation projects

-- Small Project on Water Impounding:

A project to help prevent soil erosion and degradation, to develop a water source for farming, and to support other conservation projects.

-- Crop Protection Plan:

Plan to carry out general plant protection and measures against plant disease, and to manage farming assets.

-- Livestock Protection Plan:

Project to promote veterinary, vaccine production, livestock quarantine, to increase livestock resources, and to control feed quality to arrest the decline and increase livestock herds.

c) Crop Diversification Project

-- Project to promote extension programs for crop diversification and technology for inter-cropping or multi-story cropping in 11,375 ha of mono-crop farms such as coconut farms.

(2) Comprehensive Agrarian Reform Projects Implemented by the Department of Agrarian Reform (DAR)

Agrarian reform projects are implemented by the Department of

Agrarian Reform separately from the aforementioned projects.

-- Comprehensive Agrarian Reform Program (CARP):

This program was commenced in July 1987 to redistribute approximately 3.7 million ha of public and private land to 2.13 million landless farmers. It will allow large landowners to retain 5 ha. of land in the event there is no direct heir and tiller and 8 ha. if there is a direct heir and tiller. However, land where the claim of ownership was not recognized by the government will be purchased and redistributed within ten years.

2.2.3 Current Conditions in Agricultural Extension

(1) Implementing Agency for Agricultural Extension

Agricultural extension services has a long entrenched history in the Philippines and was first established as a division of agricultural extension in 1910 within the Department of Agriculture. By 1936 extension services had expanded to the provincial level and extension workers began to be sent to each provincial local government office from the extension division. In 1952 the Bureau of Agricultural Extension (BAEx) was created and became the major agency responsible for agricultural extension services; and in 1972 extension workers began to be sent to offices at the municipal level. Regional agricultural offices in 12 regions were established in 1978 and in 1980 provincial and municipal agricultural offices were created. Agricultural extension workers who had been sent to various provinces and municipalities were transferred to these offices and placed in charge of agricultural extension activities in those areas.

In addition to traditional extension services such as agricultural production reforms, improving rural livelihoods, and fostering rural youth development, extension work in other areas such as plant protection, animal husbandry, soil preservation, agricultural cooperatives, fishery improvements, etc. were introduced and started at the provincial and municipal agricultural offices.

With the advent of the Aquino administration in 1986, the focus on rice and corn production shifted to agricultural extension work that reflected the national policies on alleviating poverty, creating

productive employment opportunities, promoting social justice and equality, and attaining continuous economic growth.

The agricultural extension services had been conducted by BAEx, and agricultural extension training had been conducted by the Philippine Training Center for Rural Development (PTC-RD). The heretofore major agricultural extension agency, BAEx, merged with the PTC-RD and Philippine Agricultural Training Center (PATC) under Executive Order No.116 in 1987. This merger became the Agricultural Training Institute (ATI) which was placed in charge of current agricultural extension training activities.

Simultaneously, agriculture extension activities was placed under the jurisdiction of the regional, provincial and municipal agricultural offices. (See Table below)

Table 1 Changes in Executing Agencies for
Agricultural Extension

Executing Agency for Agricultural Extension	Agricultural Extension Activities Changes in Executing Agencies
DA Agricultural Extension	1910: Established agricultural Division extension division 1936: Expanded agricultural extension to provincial level; deployment of extension workers to provincial local government office
BAEx in DA	1952: Shifted from Agricultural 1972: Deployment of extension workers to municipal level of local government. Agricultural Offices; deployment of extension workers to regional agricultural office 1980: Established Provincial and Municipal Agricultural Offices; transferred extension workers from the local government offices to agricultural office 1986: Accelerated agricultural extension activities under new administration
Regional Agriculture Office under DA	1987: BAEx, PTC-RD and PATC were merged into the Agricultural Training Institute

(2) Content of Agricultural Extension Activities

On site agricultural extension activities that have direct access to farmers on agricultural techniques are carried out by the regional agricultural offices in accordance with the national policy of decentralized administration. Therefore, ATI was established as an institution responsible for agricultural extension training and education.

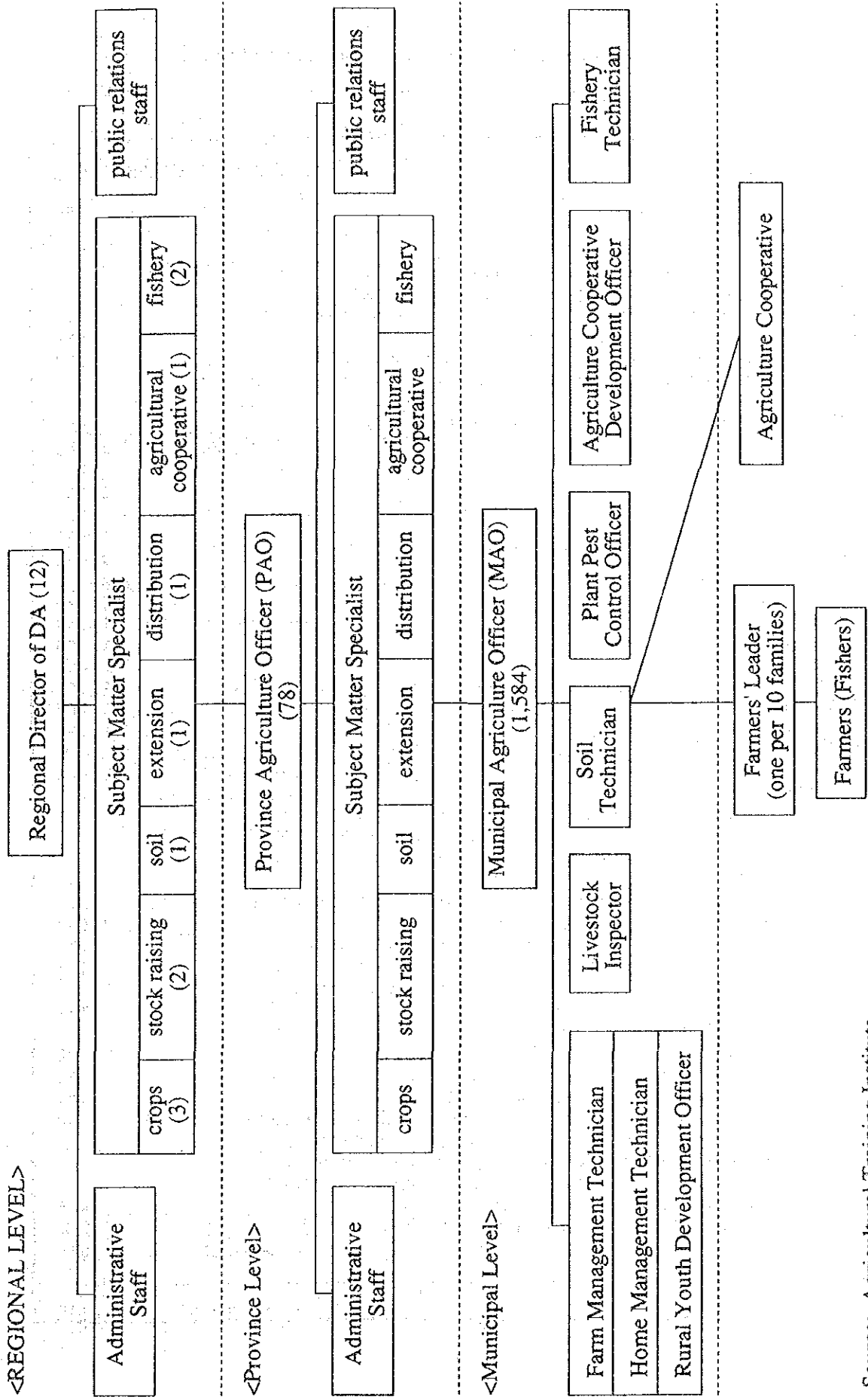
Agricultural extension services are implemented by each regional, provincial, and municipal agricultural offices. As shown in Fig.1, the regional and provincial agricultural offices employ technical specialists (in the areas of crop, stock raising, soil, extension, distribution, agricultural cooperatives, and fishery) while at the municipal agricultural offices, there are extension workers from each field of specialization (formerly referred by their specialized field, are now called Agricultural Technologist). All of the technical personnel carry out their work under the supervision of each Regional Director, Provincial or Municipal Agriculture Officer.

However, the provincial and municipal offices do not have specialists from all of the aforementioned fields available. In particular, although extension workers specializing in agricultural management are available at the municipal agricultural offices, extension workers for home economics or rural youth development services are less than half the required number.

Although the basic system of the agricultural extension requires the appointment of one technical specialist for every ten extension workers, one extension worker for every ten farmer leaders, and one farmer leader for every ten farming households, the system has not been completely organized yet.

At the farmers' level, the farmer appointed as a Farmer Leader serves as a liaison between the farmers and the extension workers, helps to organize farmers' groups, and participates in training programs at the Farmers Training Center. Although he does not receive any remuneration, he plays a vital role in agricultural extension at the grassroots level.

The number of extension personnel at the regional, provincial, and municipal agriculture offices and ATI extension personnel is shown in Table 2. The number of extension personnel is about 60 percent of the total number of personnel at the agricultural offices.



Source: Agricultural Training Institute

Fig. 1 Agricultural Extension System in Philippines

Table 2 Number of Personnel of the Department
of Agriculture

Category	Number of Personnel
1. Office of the Secretary	655
2. Bureaus	555
(1) Bureau of Animal Industry (BAI)	
(2) Bureau of Agricultural Research (BAR)	69
(3) Bureau of Agricultural Statistics (BAS)	1,201
(4) Bureau of Fisheries and Aquatic Resources (BFAR)	510
(5) Bureau of Plant Industry (BPI)	518
(6) Bureau of Soils and Water Management (BSWM)	307
(7) Bureau of Agricultural Cooperatives Development (BACOD)	111
(8) Agricultural Training Institute (ATI)	938
	Sub-total
	4,864
3. Region	
(1) Region 1	2,504
(2) Region 2	1,815
(3) Region 3	2,535
(4) Region 4	3,434
(5) Region 5	2,129
(6) Region 6	2,020
(7) Region 7	1,797
(8) Region 8	1,900
(9) Region 9	1,452
(10) Region 10	1,883
(11) Region 11	1,706
(12) Region 12	1,727
(13) Region 13	159
	Sub-total
	25,061
4. Attached Agencies	
(1) Agricultural Credit Policy Council (ACPC)	53
(2) Fertilizer and Pesticide Authority (FPA)	107
(3) Fiber Development Authority (FIDA)	743
(4) Livestock Development Council (LDC)	42
(5) National Agricultural and Fishery Council (NAFC)	177
(6) National Food Authority (NFA)	3,539
(7) National Meat Inspection Commission (NMIC)	416
(8) National Nutrition Council (NNC)	108
(9) National Post-Harvest Institute for Research and Extension (NAPHIRE)	127
(10) National Tobacco Administration (NTA)	1,029
(11) Philippine Coconut Authority (PCA)	1,600
(12) Philippine Cotton Corporation (PCC)	76
(13) Philippine Dairy Corporation (PDC)	109
(14) Philippine Fisheries Development Authority (PFDA)	998
(15) Philippine Rice Research Institute (PRRI)	398
(16) Southeast Asian Fisheries Development Center Aquaculture Department (SEAFDEC-AQD)	376
(17) Quedan Guarantee Fund Board (QGFB)	425
(18) Sugar Regulatory Administration (SRA)	892
	Sub-total
	11,215
	Grand Total
	41,140

The duties of the specialists and extension workers are as follows:

- a. Improve farming skills, upgrade rural life, disseminate general knowledge and skills to rural youth,
- b. Improve agricultural productivity and farmer incomes,
- c. Organize agricultural research, rural improvement clubs, and youth 4H groups to encourage farmer growth and participation in society,
- d. Organize and support the activities of farmer cooperatives, agricultural marketing cooperatives, etc.

In order to accomplish these tasks, the Training and Visit (T&V) method (implement training programs, pursue follow-up visits to monitor results and provide necessary advice) has been employed by extension workers since 1984. As part of the agricultural extension program, farmer leaders attend lectures and undergo training in applying new techniques at the FTC which are followed by on-site supervision by extension workers at their own farms. In their follow-up activities, extension workers evaluate the results, provide appropriate advice and supervision, and assist in disseminating the technology.

However, the extension workers and DA personnel are plagued by the following problems in carrying out their work:

1. Inability to recognize results and unsuitable application of extension methods;
2. Inexperience in problem solving and management planning;
3. Unclear demarcation of organizational responsibilities; and
4. Absence of career paths and a system of promotion and rewards.

As a result, extension work has not improved due to the low morale of extension personnel.

The following measures have been proposed to solve the constraints in agricultural extension activities:

1. It is vital that linkages between agricultural extension agencies and research institutes are strengthened in order to thoroughly disseminate new technology developed by research institutes through the agricultural extension network.

2. It is necessary to accelerate agrarian reform and increase the number of landowning farmers; and thereby stimulate the farmer's ambition to increase productivity, which in turn will raise the impact of agricultural extension activities.

3. The ratio of extension worker to farmer is still exceedingly small. Therefore, in order to implement effective extension activities, it is necessary to reinforce farmers' organizations and to increase mobile extension activities into a nationwide network.

2.3 Outline of Agricultural Extension Training Activities

2.3.1 Present Conditions in Agricultural Extension Training

According to the Agricultural Development Plan, constraints to improvements in rural poverty stem from the following four causes:

- a. Lack of a suitable agricultural production system;
- b. Lack of self-sufficiency due to small farms, and inadequate funds;
- c. Lack of effective technology transfer due to inexperienced skills of research and extension personnel; and
- d. Inadequate institutional support services in marketing and finances.

Agricultural extension training is an important means of resolving these constraints. The first major agricultural extension training agency was the PTC-RD established in 1977 (and managed by a board of directors composed of the DA, Department of Agrarian Reform (DAR), Department of Education, Culture and Sports (DECS), autonomous regional agencies, Department of Environment and Natural Resources (DENR), the University of the Philippines (UP), etc.) The PTC-RD was composed of one central training center, five regional training centers, and six farmers' training centers. They carried out the following activities:

1. Develop training curriculum
2. Implement training programs

3. Develop and produce printed educational materials
4. Develop and produce audio visual materials
5. Conduct research related to extension training
6. Develop the capabilities of training center personnel

The role and facilities of these centers were transferred to the ATI after the merger of the BAEx, PTC-RD and PATC. Presently, the ATI is the principal institution for agricultural extension training.

In contrast, research in agricultural extension is conducted by institutes other than the DA. For example, there are the re-education programs of Out of School Youth (OSY) in DECS, and agricultural technology training programs carried out for the beneficiaries of CARP, sponsored by the DAR.

The OSY re-education programs are carried out by the staff of agricultural universities for out of school rural youth and is similar in content to the rural youth educational training activities implemented by ATI. In addition, the agricultural technology training programs sponsored by the DAR are also similar in content to the ATI and DECS programs.

2.3.2 Current Conditions of ATI

In order to effectively carry out its training activities, ATI has increased its facilities since its establishment. Table 3 shows the transitions ATI underwent from the 1987 to 1991. At the time of its institution in 1987, all the rural development centers in the Philippines were placed under the jurisdiction of ATI; and it has continued to increase its facilities yearly. By 1991 the total number of training centers, including the newly planned CAR Regional Training Center in Ifugao, will be 42 centers.

Table 3 Transitions in the Number ATI Training Centers

Training Center	1987	1988	1989	1990	1991
1. National Training Centers	3	3	4	4	4
2. Regional Training Centers	3	12	12	12	13
3. Farmers' Training Centers	4	11	24	24	24
4. International Training Centers for Pig Husbandry	-	-	-	1	1
TOTAL	10	26	40	41	42

NOTE 1: 1991 figures for regional training centers include the new CAR regional training center in Ifugao currently under planning.

NOTE 2: International Training Center for Pig Husbandry is a new facility established in 1990.

NOTE 3: Farmers' Training Centers were placed under the jurisdiction of the provincial governments in 1991.

In addition to increasing its facilities, the ATI training centers have also increased their achievements in agricultural extension training. At the time of its institution in 1987, ATI continued the training activities implemented by PTC-RD until the first quarter of that year. However, after this initial period, ATI has pursued activities in:

- 1) Agricultural education and training, mainly agricultural management courses for DA specialists and extension workers, and courses on improving rural income for DA and related agency personnel.
- 2) On site agricultural extension and training courses in fruit and vegetable production for farmers' wives, etc.

The content, number of participants, and achievement rate of human resource development courses for farmers given at each training center in 1988 is given as follows:

- 1) National Training Centers-- Course on policy management of agricultural development and rural development programs for personnel of all regional, provincial, and municipal agricultural offices, and agricultural specialists and technicians; course was given 61 times with 3,732 participants, achieved 110 percent of its target.
- 2) Regional Training Centers-- Course on management of agricultural extension tasks and research activities for extension workers in all fields; course was given 40 times with 6,630 participants; achieved 97 percent of its target.
- 3) Farmers' Training Centers -- Course on rural industrialization and rural management, operation, and practical application skills for farmer leaders; course was given 172 times with 9,036 participants achieved 130 percent of its target.

In addition, training courses in management of rural industries for Non Government Organization (NGO) and the private sector were conducted at the training centers. The participants numbered 1,374. Training courses supporting CARP were also held and achieved 143 percent of its target.

In 1989 the number of farmer training centers expanded rapidly; and in 1990 the International Training Center for Pig Husbandry (ITCPH) was incorporated into the ATI network. Training programs after 1989 were implemented according to the schedule given in Appendix 1. Major achievements in agricultural extension training for the two year period from 1989 to 1990 are shown below.

- 1) Short-term Refresher Course: for extension workers; developing farming systems, agricultural extension, agri-business, information exchange, evaluation standards, etc.; course participants in 1989 were 1,466 (achieved 54 percent of target) and 1,910 in 1990 (achieved 48 percent of target).
- 2) Masteral/Diplomate Course: for agricultural specialists; implemented at various national universities; course

- participants in 1989 were 200 (achieved 51 percent of target) and 332 in 1990 (achieved 43 percent of target).
- 3) Professional Enhancement Course: for personnel of all regional, provincial, and municipal agricultural offices and division chiefs within DA; general management technology; course participants in 1990 were 182 (achieved 36 percent of target).
 - 4) Special Field Research Course: for agricultural specialists from DA; animal husbandry, crop cultivation, crop production, soil technology, and information dissemination held in the Department of Agriculture, University of the Philippines; course participants were 31 in 1990.
 - 5) Agro-based Enterprise Development Course: for members of Agriculture and Fisheries Council; agro-based rural enterprise development; course participants were 3,579 in 1989 (achieved 232 percent of target) and 1,042 in 1990 (achieved 155 percent of target).
 - 6) Course in Developing Rural Domestic Enterprise: for farmer's wives; developing rural cottage industry technology; course participants were 4,759 in 1989 (achieved 140 percent of target) and 7,202 in 1990 (achieved 83 percent of target).
 - 7) Course in Applied Technology: for extension workers; agricultural development technology; course participants were 2,937 in 1989 (achieved 109 percent of target) and 3,580 in 1990 (achieved 90 percent of target).
 - 8) CARP Training: for 28,788 agrarian reform related government personnel and beneficiaries of CARP; agrarian land management, course participants were 2,937 in 1989 (achieved 186 percent of target); farming as an enterprise, course participants were 2,839 in 1989 (achieved 55 percent of target) and 1,251 in 1990; farming system technology, course participants were 1,239 in 1989 (achieved 33 percent of target) and 2,660 in 1990; rural enterprise development, course participants were 19,759 in 1990 (achieved 108 percent of target).

In addition, ATI developed, produced, and distributed 499,538 copies of printed materials in 1989, 281,425 copies in 1990, dubbed nine video production into 180 copies of video tapes, undertook 344 video presentations.

However, timely data feedback to ATI on technology suited to a region or training extension methods for extension workers are often not available. Problems such as these have been pointed out, compounded by a lack of coordination during program planning, late funding, or shortage of funds. In addition, a DAR budget has been appropriated for the ATI to implement training programs for CARP. NTCs conduct these courses for farmers who are the beneficiaries of CARP; who are normally outside ATI's sphere of responsibility.

Furthermore, ATI is often requested by local government units and NGOs to sponsor lectures and conferences which are unrelated to agriculture. The energies spent on such activities, tend to detract from the institute's training programs and original purpose, and may be a factor as to why it was unable to achieve its target rate for training courses from 1989 to 1990.

Moreover, Farmers Training Centers which are to be created in each province for a total of 77 centers, number only 24 locations this far. In provinces which do not have a Farmers Training Center yet, the Regional Training Center has been fulfilling the role.

2.3.3 Agricultural Extension Training and Its Implementation Structure

(1) DA and ATI Organization

The Department of Agriculture underwent several major transitions before it was reorganized into its current organizational structure under Executive Order No. 116 in 1987. The organizational chart of the DA is shown in Fig. 2.

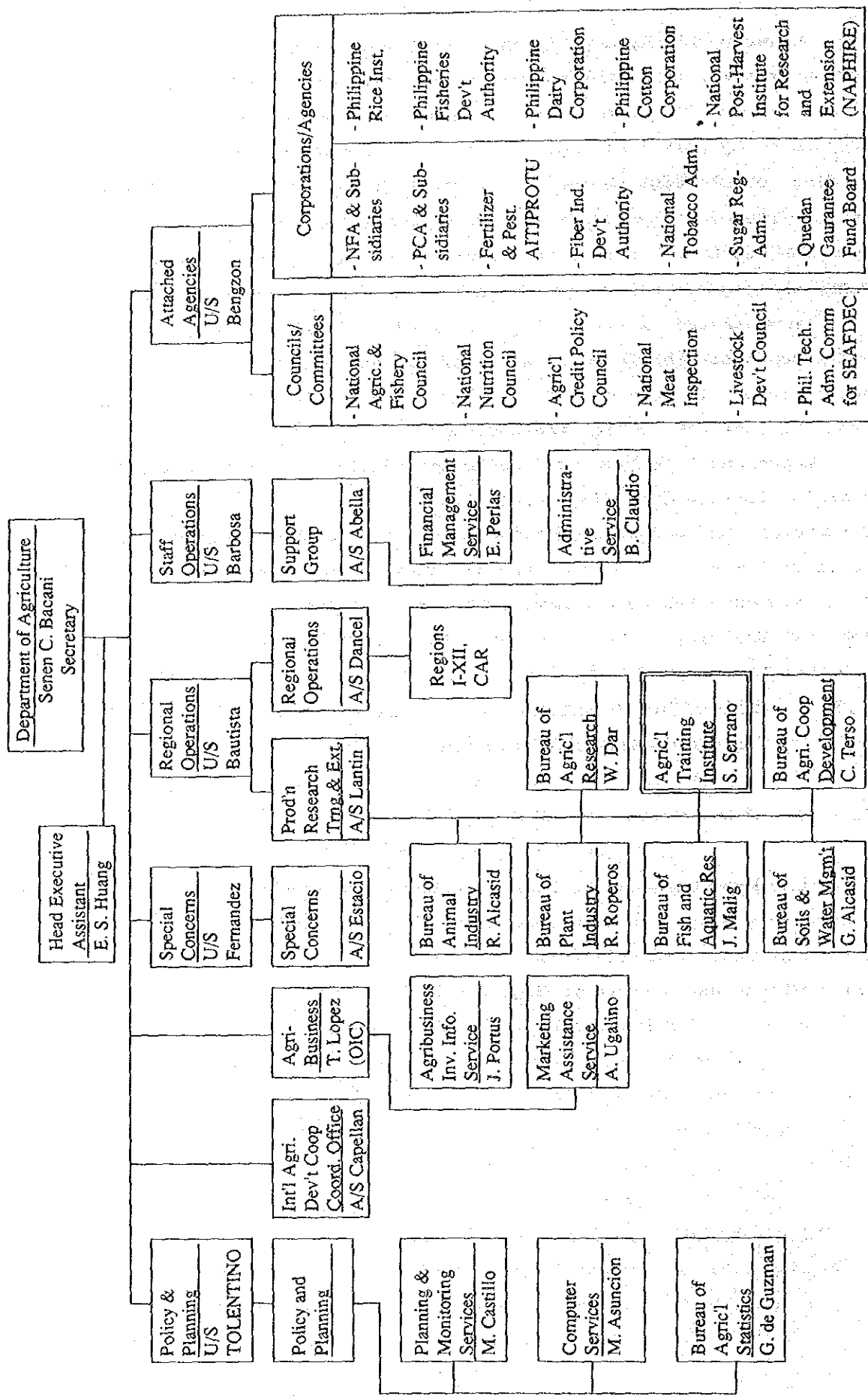


Fig. 2 Organization Structure of the Department of Agriculture

There are five undersecretaries under the Secretary of Agriculture who have been assigned to administer staff operations, policy & planning, regional operations, attached agencies, and special concerns. Under the Undersecretary for regional operations, there is an assistant Secretary for production, research, agricultural extension and an assistant Secretary for regional operations.

The ATI is under the jurisdiction of the Assistant Secretary for production, research, agricultural extension. The Bureau of Agricultural Cooperatives Development was transferred from the jurisdiction of this Assistant Secretary to the Office of the President in 1990 and is no longer within the DA. In contrast, the Regional Agricultural Office which implements agricultural extension services is under the jurisdiction of the Assistant Secretary for regional operations.

As shown in Fig. 3, under the Director of ATI, there are three assistant directors in charge of training, research and development, operations, and administrative support services. Under the assistant director for training, research and development are the division chiefs of extension communication (printing, library, audio visual, and research, developing, & editing sections) and specialist services. In addition the 4 NTC, 13 RTC (including the newly planned CAR training center), 24 FTC, and the ITCPH are under the jurisdiction of the assistant director for operations. The number of ATI personnel are as follows:

1) ATI Central Office	
* Director (including three assistant directors) and administration office	87
* Planning, Monitoring, & Evaluation Division	13
* Specialist Services Division	14
* Extension Communication Division	39
<u>Central Office (Total)</u>	<u>153</u>
2) NTC	100
3) RTC	228
4) FTC	457
5) ITCPH*	0
<u>ATI TOTAL</u>	<u>938</u>

* Personnel of ITCPH serves concurrently as central office's

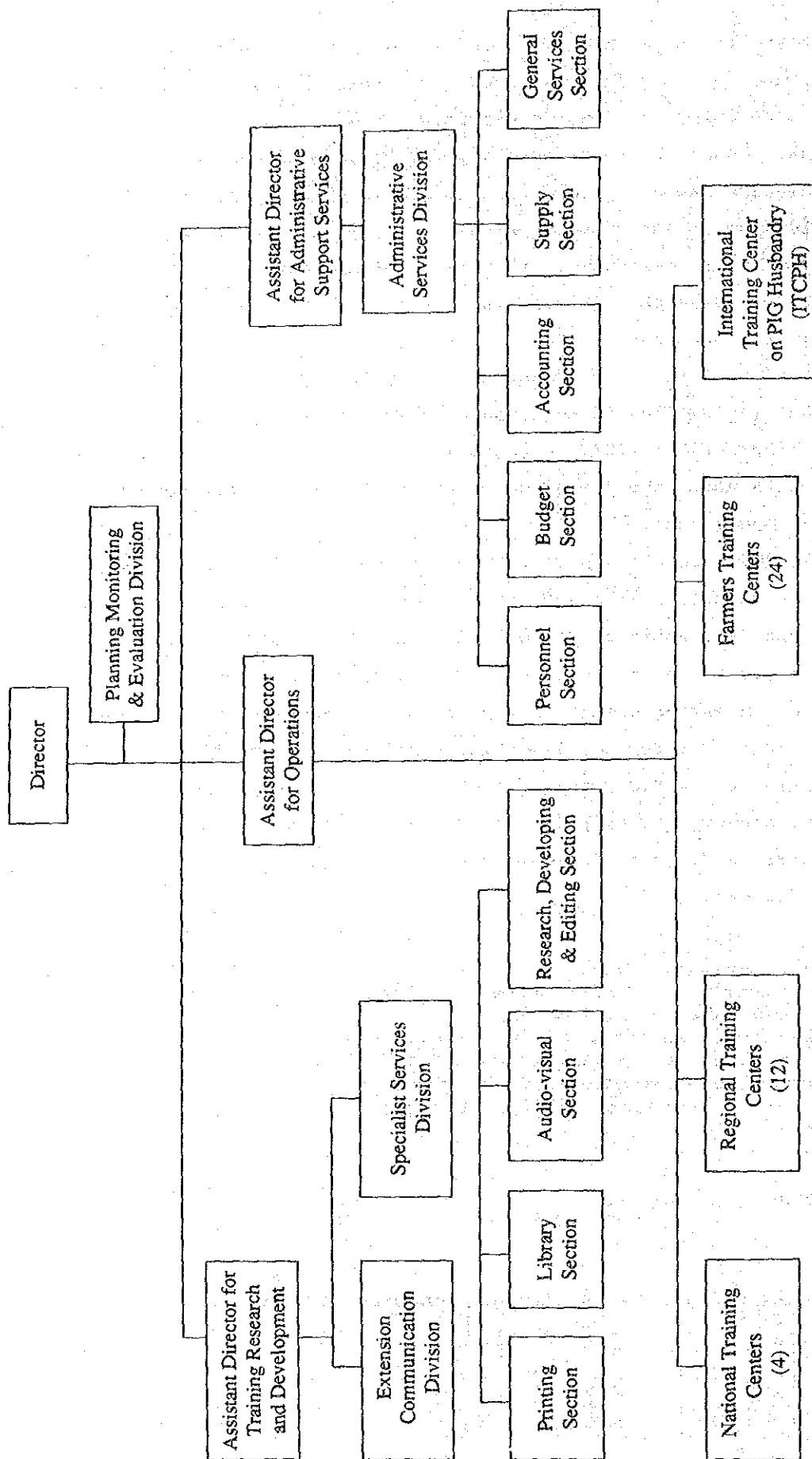


Fig. 3 Agricultural Training Institute
(Organizational Structure)

(2) Role of ATI:

The major role of ATI are to:

- 1) Develop agricultural related personnel
- 2) Develop an agricultural training network
- 3) Produce and disseminate support information in agricultural development
- 4) Research and develop training skills

The functions of the ATI Central Office, the NTC, RTC, and FTC are shown in Table 4.

The major activities of the ATI Central Office are to supervise ATI policies, develop training methods through monitoring and evaluating training courses, to produce video materials on agricultural extension for television broadcasting, produce large volumes of text printing and posters, to develop training and research themes, and to implement training programs for agriculture related agencies and institutions

The functions of the NTCs, RTCs, and FTCs differ according to the trainees that utilize their facilities. The NTC are located in four different regions (Northern Luzon, South Central Luzon, Visayas, and Mindanao) and implement training programs for specialists, and middle level officers of the DA and agriculture-related agencies. The trainees at RTC are mainly the extension workers from the municipal agricultural offices; and the trainees that utilize the FTC are farmer leaders, rural youth group leaders, agricultural cooperative representatives, etc. from each province. Planning, implementation, and evaluation of training programs are carried out by each training center.

Table 4 Scope of Responsibility of ATI Organization Units

ATI's Organizational Unit	Agricultural Manpower Development Program	Center Network Development Program	Development Support Communication Program	Training Research Program
ATI-Central Office	<ul style="list-style-type: none"> * Policy direction * Monitoring and evaluation * Curriculum development * Development and production of information education and communication (IEC) materials 	<ul style="list-style-type: none"> * Project development * Center staff Development * Institutional linkages * Center network and management and supervision 	<ul style="list-style-type: none"> * Develop policy guidelines & Prototypes * Mass production and distribution of instructional materials * Monitor & evaluate effectiveness of various instructional materials 	<ul style="list-style-type: none"> * Training research agenda * Testing and validation of training techniques and other innovative, appropriate training activities
National Training Center (NTCs)	<ul style="list-style-type: none"> * Design, conduct and evaluation of training programs for Middle Level Managers (MLSMs) 	<ul style="list-style-type: none"> * Center operation and management * Capability development for staff * Institutional linkages 	<ul style="list-style-type: none"> * Develop location specific prototypes * Field testing * Dissemination of instructional materials * Assist in monitoring and evaluation 	<ul style="list-style-type: none"> * Conduct of training research activities
Regional Training Centers (RTCs)	<ul style="list-style-type: none"> * Design, conduct and evaluation of training programs for Agricultural Production Technologists 	<ul style="list-style-type: none"> * Center operation and management * Center staff Development * Institutional linkages 	- do -	<ul style="list-style-type: none"> * Conduct of training research activities
Farmers Training Centers (FTCs)	<ul style="list-style-type: none"> * Design, conduct and evaluation of training programs for farm families 	<ul style="list-style-type: none"> * Center operation and management * Center staff Development * Institutional linkages 	- do -	<ul style="list-style-type: none"> * Conduct of training research activities

FOOTNOTES:

1. During the interim period of establishing the network of Training Centers, the NTCs will train middle level managers and assist in training technicians in provinces where they are located but will stop as soon as RTCs are established to train technicians.
2. RTCs will train technicians and assist in training farmers/fisherfolks, rural women and out-of-school youth in provinces where they are located until enough FTCs are established.
3. FTCs will train farmers/fisherfolks, rural women and out-of-school youth.

(3) ATI Budget and Expenditures

The ATI budget and transitions in expenditures from fiscal year (FY), 1987 to 1991 are shown in Table 5.

The ATI budget increased continuously after its institution, but was reduced by about 18 percent for FY 1991, in comparison to general annual funds from the budget allocated by the DA the previous year. It is anticipated that the provincial government will bear the personnel costs of the FTCs which will be turned over to their jurisdiction in 1991. The expenditure rate of the budget was 89.7 percent in FY 1987 and increased steadily until it reached 97.4 percent in FY 1990.

However, the training, operation and maintenance costs which were cut in FY 1990, had recovered to 1989 levels. Real training costs are anticipated to increase beyond FY 1989 levels due to the completion of renovation work at each training center (the budget for construction of CAR regional training center will be appropriated from FY 1992), and distribution of operation and maintenance costs to training costs.

Other funds appropriated for FY 1990 and 1991 are a grant from the Netherlands for the International Training Center on Pig Husbandry. Moreover, the same funds for FY 1987 and 1988 were appropriated for ATI's predecessor, BAEx, for a research grant on rural housewives throughout the nation which was mainly used for training programs utilizing enterprise development.

Table 5 ATI Comparison of Financial Data (in million pesos)

	1987		1988		1989		1990		1991
	DBM Release	ATI Disbursement	DBM Release	ATI Disbursement	DBM Release	ATI Disbursement	DBM Release	ATI Disbursement	DBM Release
GENERAL FUND	<u>36.14</u>	<u>32.41</u>	<u>66.4</u>	<u>62.78</u>	<u>77.29</u>	<u>74.74</u>	<u>76.13</u>	<u>74.16</u>	<u>62.66</u>
Personal Services	9.63	9.06	23.6	22.21	41.35	39.47	45.36	45.74	28.85
Maintenance and Other Operating Expenses	26.51	23.35	33.13	33.11	35.94	35.27	30.77	28.42	33.81
Equipment Outlay	-	-	9.67	7.46	-	2.20	-	-	-
Special Fund									
CARP Related Expenditure	1.1	0.4	11.87	9.14	23.52	13.29	25.67	25.44	35.16
Maintenance and Other Operating Expenses	1.1	0.4	11.8	9.07	23.52	13.29	25.67	25.44	25.67
Equipment Outlay			0.07	0.07					
Other Fund (FUND 101)	<u>23.81</u>	<u>22.78</u>	<u>18.24</u>	<u>10.86</u>			<u>4.62</u>	<u>4.52</u>	<u>16.84</u>
Personal Services	0.06	0.06					1.86	1.68	1.96
Maintenance and Other Operating Expenses	21.75	20.72	18.24	10.86			2.76	2.84	3.59
Equipment Outlay	2.0	2.0							11.29
Total	61.05	55.59	96.51	82.78	100.81	88.03	106.42	104.12	114.66

2.4 Background and Contents of Request

2.4.1 Background of the Request

In the Medium Term Philippine Development Plan, the goals of the Philippine government are to alleviate poverty, increase employment opportunities with high productivity, achieve equality and social justice, and attain sustainable economic growth. The role of the ATI is to conduct agricultural extension training programs and extension technology transfer to ensure that these national goals are reflected in agriculture and agricultural development.

When ATI was established in 1987, there were only ten (10) agriculture related training centers, but by 1988, there were 26, and in 1990 the centers had expanded to 41 locations. In addition, there are plans to open a regional training center in CAR in 1991; and by mid 1991 a total of 42 training centers will be completed and in operation.

Due to the rapid pace in which these training centers were created, nearly all of the facilities lack training equipment, with the exception of training centers in operation before the creation of ATI. Former PTC-RD training centers which were turned over to ATI, are equipped with training equipment which were installed over a period of six years from 1978 by DECS, under the Fourth Education Plan (World Bank loans). Although the equipment has depreciated, it is currently used in training courses. In addition, ATI appropriated about 6.56 million pesos of its own funds to install audio-visual training equipment. However, equipment and facilities appropriated and installed with ATI funds have been greatly limited due to the large number of new training centers. In order to install new equipment and facilities for previously established training centers and the ATI Central Office, a request for Japanese grant aid was made.

According to the initial request, grant aid for equipment and facilities were limited to the ATI Central Office, NTCs, and RTCs for a total of 17 training centers. However, during the basic design survey of the Project, ATI requested further aid for an additional training center in CAR, for a total of 18 training centers to be the recipients of Japanese grant aid.

2.4.2 Outline of the Request

(1) Objective of the Request

The objective of the Project is to provide equipment and carry out renovation work for ATI.

(2) Outline of Requested Equipment and Renovation Works

The contents of the request which have been confirmed and deliberated by the Government of the Philippines and the basic design survey team are as follows:

The beneficiaries of the Project are the ATI Central Office, 4 NTCs, and 13 RTCs for a total of 18 sites.

a. Equipment to be installed at ATI Central Office

- 1) Audio Visual equipment, 2) printing equipment, 3) information processing equipment, 4) information communication equipment, 5) support vehicles, 6) enterprise laboratory equipment, 7) training furniture/fixtures

b. Equipment to be installed at NTCs:

- 1) Audio Visual equipment, 2) printing equipment, 3) information processing equipment, 4) information communication equipment, 5) support vehicles, 6) demo farms equipment, 7) training furniture/fixtures

c. Equipment to be installed at RTCs

- 1) Audio-Visual equipment, 2) printing equipment, 3) information processing equipment, 4) information communication equipment, 5) support vehicles, 6) enterprise laboratory equipment, 7) demo farms equipment, 8) training furniture/fixtures

d. Renovation to be carried out at ATI Central Office

- 1) repairing the roof of the audio visual production building from rain leak, repairing building interiors, installing air conditioners; 2) repairing interior of printing building, installing air conditioners, 3) renovate main building to accommodate training rooms with 60 and 80 seat capacity and an enterprise lab

The audio-visual and printing equipment to be provided for the ATI Central Office and the other training centers differ greatly in scope and type. The Audio Visual equipment for the ATI Central Office will contain studio shooting equipment capable of producing agricultural extension material for television broadcasting, whereas, the training centers will be provided equipment to utilize the video material produced by the Central Office. In addition, the printing volume and content differs greatly between the Central Office and the other training centers. The printing equipment for the Central Office will be larger in scope and different in type from the equipment for the other training centers.

The other requested equipment is similar for both the Central Office and the other training centers, with the exception of the demo farm equipment which will not be provided for the Central Office and the enterprise laboratory equipment which will not be provided for the NTC.

(3) Implementing Agency

The implementing agency for this Project is the ATI.

3. OUTLINE OF PROEJCT SITES

3. OUTLINE OF PROJECT SITES

3.1 Location, Social and Economic Conditions of the Project Sites

The Project will be implemented in the Metro Manila area and in the regions throughout the nation. The Project site as well as the social and economic conditions are given below. Details are shown in Appendix 2.

Benquet NTC and RTC-CAR and Its Surrounding Conditions

Both training centers are located in the Cordillera Administrative Region (CAR) in the southernmost part of Benguet province at La Trinidad and Lamut in Ifugao province. La Trinidad is a town adjacent to Baguio City, approximately 250 km from Manila using North Super Highway, National Highway No.3 and Kenon Road. Lamut is about 300 km from Manila, 10 km from Bayongbong in the direction of Banaue using North Super Highway and National Highway No. 5.

CAR was created in 1989 by dividing a section of Region 1 and Region 2. Total land surface is 1,829,400 ha; total population is about 868,000; and population density is 47.4 people/km². It is the most depopulated area of the nation and is an autonomous region composed of five provinces in the highlands of Central Luzon Island. This entire area is the highlands and is home to many of the hill tribes. In 1990 the area was badly hit by an earthquake and suffered major damages. Reconstruction efforts, began in 1991 are still continuing.

The working population ratio of adults over 15 years of age is the second largest in the nation at 70.3 percent and the unemployment rate is 2.3 percent. The number of households in the region is the smallest with about 214,000 households, and the average family income is about 33,357 pesos, which is the median for the entire nation.

RTC -1 and Its Surrounding Conditions

The RTC in Region 1 is located in the southernmost province of Pangasinan in Sta. Barbara, approximately 200 km north of Metro Manila on North Super Highway and National Highway No.3. It is several kilometers from the town of Urdaneta, in the direction of Dagupan.

The total land surface of Region 1 is 1,284,000 ha; the population is about 3,048,000; and the population density is the third largest in the nation at 237.4 people. The region is known as the Ilocos region and is located in the northwestern part of Luzon Island, composed of four provinces. It has the tenth largest working population ratio at 63.3 percent and the unemployment rate is sixth in the nation at 3.2 percent.

RTC -2 and Its Surrounding Conditions

The RTC in Region 2 is located in the central province of Isabela in Cabagan and is approximately 30 km south of the region's central city, Tuguegarao.

The total land surface of Region 2 is 2,089,500 ha; the total population is about 2,684,000; and the population density is 77.9 people/km² which is the second most depopulated area next to CAR. The region is composed of five provinces in the center of the Cagayan river area in the northeastern part of Luzon Island, and is known as the Cagayan Valley region.

It has the third largest working population ratio at 69.9 percent, following CAR and the unemployment rate is lowest in the nation at 1.9 percent. The number of households in the region ranks twelfth in the nation, and is the smallest preceding CAR with about 438,000 households, and the average family income is about 32,765 pesos, which is the eighth in the nation.

RTC-3 and Its Surrounding Conditions

The RTC-3 is located in the province of Pampanga, in Magalan and is about 20 km east from the town of San Fernando on the North Super Highway. The extinct Arayat volcano in the middle of the plateau in Central Luzon is located nearby.

The total land surface of Region 3 is 1,823,100 ha; the total population is about 5,203,000; and the population density is 285.4 people/km², and excluding the Metro Manila area, it is one of the most

densely populated regions in the nation. This is due to the fact that with Metro Manila adjacent to the region, industrialization has accelerated and the region has become a bedtown for Metro Manila.

The region is composed of six provinces in Central Luzon Island and is known as Central Luzon. The region includes the Tarlac, the home province of President Aquino, and Clark US Air Force Base and Subic US Naval Base.

The working population ratio of adults over 15 years of age is the lowest in the nation, ranking thirteenth, at 59.9 percent and the unemployment rate is the highest at 5.0 percent. The number of households in the region is the second largest in the nation, with about 1,038,000 households, and the average family income is about 46,034 pesos, which is the largest in the entire nation.

Los Banos NTC, RTC-4 and Its Surrounding Conditions

The training centers in Region 4 are located in Los Banos in central Laguna province, and Trece Martires in Cavite province. They are both 50 kilometers south of Manila.

The total land surface of Region 4 is 4,693,400 ha; the total population is about 6,803,000; and the total population density is 145.0 people/km² and is the median for the entire nation. With Metro Manila adjacent to the region, industrialization has accelerated and the region has become a bedtown for Metro Manila.

The region includes both Mindoro and Palawan Islands; and although the depopulation rate in these islands has kept the population density to median levels, the population density in areas neighboring Metro Manila is similar to Region 3. The region is composed of ten provinces, including Mindoro and Palawan Islands and the southern part of Luzon Island, and is known as the Tagalog Region. It surrounds Metro Manila and is the major region which utilizes the national language of Tagalog.

The working population ratio of adults over 15 years of age is one of the lowest in the nation, ranking eleventh, at 63.1 percent and the unemployment rate is the second highest at 4.3 percent. The number of households in the region is the largest in the nation, with about 1,421,000 households, and the average family income is about 38,381 pesos, which is the second largest in the entire nation.

RTC-5 and Its Surrounding Conditions

The RTC in Region 5 is located in Pili in central Camarines Sur province. There are direct flights from Manila; and it is located within the grounds of Camarines Sur State Agriculture College, 12 kilometers from Naga Airport.

The total land surface of Region 5 is 1,763,300 ha; the total population is about 3,659,000; and the total population density is 207.5 people/km², and is the fourth densely populated region in the entire nation.

The region is composed of six provinces and includes the tail end of Luzon Island and Masbate Island. It is generally known as Bicol Region. It is one of the regions where there is serious resistance from the NPA.

The working population ratio of adults over 15 years of age ranks fourth in the nation, at 68.7 percent and the unemployment rate is seventh at 2.9 percent. The number of households in the region ranks fifth in the nation, with about 738,000 households, and the average family income is about 26,676 pesos, which is low at twelfth in the nation. It is one of the most poverty stricken regions in the nation.

RTC-6 and Its Surrounding Areas

The RTC in Region 6 is located in Banga in the north of Panay Island in Aklan province, and is on the campus of Aklan State Agriculture College which is 20 km west of Banga Airport. There are two direct flights daily from Manila.

The total land surface of Region 6 is 2,022,300 ha; the total population is about 5,440,000; and the total population density is 269.0 people/km² and is the second most densely populated region in the entire nation.

It is composed of five provinces in the islands of Panay, known as the rice tank of the Philippines, and Negros which is famous as a sugar island. It is commonly known as the Western Visayas Region.

The working population ratio of adults over 15 years of age ranks ninth in the nation, at 63.7 percent and the unemployment rate is eleventh at 2.5 percent. The total number of households ranks third at about 957,000; and the average household income for the entire region is approximately 30,397 pesos, due to the poor economic

condition of Negros Island stemming from low sugar prices in recent years, although income levels are rather high in Panay and Guimaras Islands.

RTC-7 and Its Surrounding Conditions

The RTC in Region 7 is located in Cebu, Cebu Island. Although it is located in an inconvenient region in terms of transportation, it is within an international tourist spot and the cost of living is high. This factor may adversely affect trainees.

The total land surface of Region 7 is 1,495,200 ha; the total population is about 4,051,000; and the total population density is 270.9 people/km², and is the second most densely populated region in the entire nation.

It is composed of four provinces consisting of the islands of Bohol, Cebu, Siquijor, and Eastern Negros. It is commonly known as the Central Visayas Region. Cebu Island is an industrialized area which contains the International Seaport. In addition, the Mactan Airport located near Cebu Island is the second international airport of the Philippines and is a transit point for domestic flights.

The working population ratio of adults over 15 years of age ranks seventh in the nation, at 66.4 percent and the unemployment rate is ninth at 2.6 percent. The total number of households ranks fourth at about 830,000; and the average household income for the entire region is approximately 27,351 pesos, ranking a low eleventh in the nation. This may be due to the fact that, although industrialization has progressed in Cebu city and its surrounding environs, there is very little industrialization in other areas.

Visayas NTC and RTC-8 and Its Surrounding Conditions

The training centers in Region 8 are located in Baybay and Alangalang in Leyte Island in Leyte province. The NTC is about four hours by car from Tacloban City where direct flights from Manila are available.

The total land surface of Region 8 is 2,143,200 ha; the total population is about 2,927,000; and the total population density is 136.6 people/km², and is the second most densely populated region in the entire nation. It is composed of five provinces including the islands of Samar and Leyte and is commonly known as the Eastern

Visayas Region. The Maritime Training Center located at the boundary between Samar and Leyte Islands was founded under Japanese grant aid.

The working population ratio of adults over 15 years of age ranks first in the nation, at 74.4 percent and the unemployment rate is fifth at 3.7 percent. The number of households in the region ranks ninth in the nation, with about 598,000 households, and the average family income is about 25,069 pesos, which is a low thirteenth in the nation.

RTC-9 and Its Surrounding Conditions

The RTC in Region 9 is located in Ipil in Central Zamboanga del Sur in the tail end of Mindanao Island. The RTC is a three to four hour drive or about 40 km from Zamboanga. Due to poor safety conditions, the RTC is reached by small chartered planes.

The total land surface of Region 9 is 1,868,599 ha; the total population is about 2,840,000; and the total population density is 152.0 people/km², and is the second most densely populated region in the entire nation.

It is composed of six provinces which includes the tail end of Mindanao Island, Basilan, Sulu, and Tawi-Tawi Islands. It is commonly known as West Mindanao.

The working population ratio of adults over 15 years of age ranks twelfth in the nation, at 60.1 percent and the unemployment rate is eighth at 2.8 percent. The number of households in the region ranks tenth in the nation, with about 539,000 households, and the average family income is about 32,033 pesos, which is a low ninth in the nation.

Mindanao RTC and RTC-10 and Its Surrounding Conditions

The training centers in Region 10 are located in El Salvador, Misamis Oriental province and Musuan in Bukidnon province. Musuan is located in the suburbs of Malaybalay terraced highlands, 110 km south of Cagayan de Oro city, the northern front of Mindanao Island. It is a three hour drive. In contrast, El Salvador is located in the coastal area 30 km west of Cagayan de Oro city; and is a 40 minute drive by car.

The total land surface of Region 10 is 2,832,800 ha; the total population is about 3,132,000; and the total population density is

110.6 people/km², and is the tenth most densely populated region in the entire nation.

It is composed of seven provinces in Northern Mindanao Island and is commonly known as northern Mindanao. A special characteristic is the wide terraces which are seen in this narrow coastal area. It is famous for its production of pineapples. Another notable characteristic is the large steel manufacturing plant.

The working population ratio of adults over 15 years of age ranks sixth in the nation, at 67.4 percent and the unemployment rate is third at 3.8 percent. The number of households in the region ranks eighth in the nation, with about 607,000 households, and the average family income is about 34,422 pesos, which is fifth in the nation.

RTC-11 and Its Surrounding Conditions

The RTC in Region 11 is located in Dato Abdru, Panabo, Davao del Norte province in southern Mindanao Island, which is the suburbs of the second largest city in the Philippines, Davao city. It is about 40 km from Davao city or an one hour drive by car.

The total land surface of Region 11 is 3,169,300 ha; the total population is about 3,792,000; and the total population density is 119.7 people/km², and is the ninth most densely populated region in the entire nation. It is composed of five provinces running from east to south in Mindanao Island; and it is commonly known as Southern Mindanao region.

The region contains Davao Port and has traditionally been a flourishing trade port. Prior to World War II, many Japanese were residing here. Recently, NPA insurgency activities have been strong and problems in security have surfaced. The area is a large producer of corn, banana and pineapple; and the largest investment of US capital by American companies in the Philippines can be seen here.

The working population ratio of adults over 15 years of age ranks fifth in the nation, at 67.9 percent and the unemployment rate is third at 3.8 percent. The number of households in the region ranks fifth in the nation, with about 738,000 households, and the average family income is about 36,680 pesos, which is third in the nation.