

**BASIC DESIGN STUDY REPORT
ON
THE PROJECT FOR EQUIPMENT SUPPLY
TO TV TRAINING CENTER
IN
THE REPUBLIC OF INDONESIA**

MARCH 1997

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**MINISTRY OF INFORMATION
THE REPUBLIC OF INDONESIA**

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Preface

In response to a request from the Government of the Republic of Indonesia, the Government of Japan decided to conduct a basic design study on the Project for Equipment Supply to TV Training Center and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to Indonesia a study team from November 19 to December 5, 1996.

The team held discussions with the officials concerned of the Government of Indonesia, 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 Indonesia in order to discuss a draft basic design, and as this result, the present report was finalized.

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 Indonesia for their close cooperation extended to the teams.

March 1997



Kimio Fujita
President

Japan International Cooperation Agency

March 1997

Letter of Transmittal

We are pleased to submit to you the basic design study report on the Project for Equipment Supply to TV Training Center in the Republic of Indonesia.

This study was conducted by NHK Integrated Technology Inc., under a contract to JICA, during the period from November 12, 1996 to March 28, 1997. In conducting the study, we have examined the feasibility and rationale of the project with due consideration to the present situation of Indonesia and formulated the most appropriate basic design for the project under Japan's grant aid scheme.

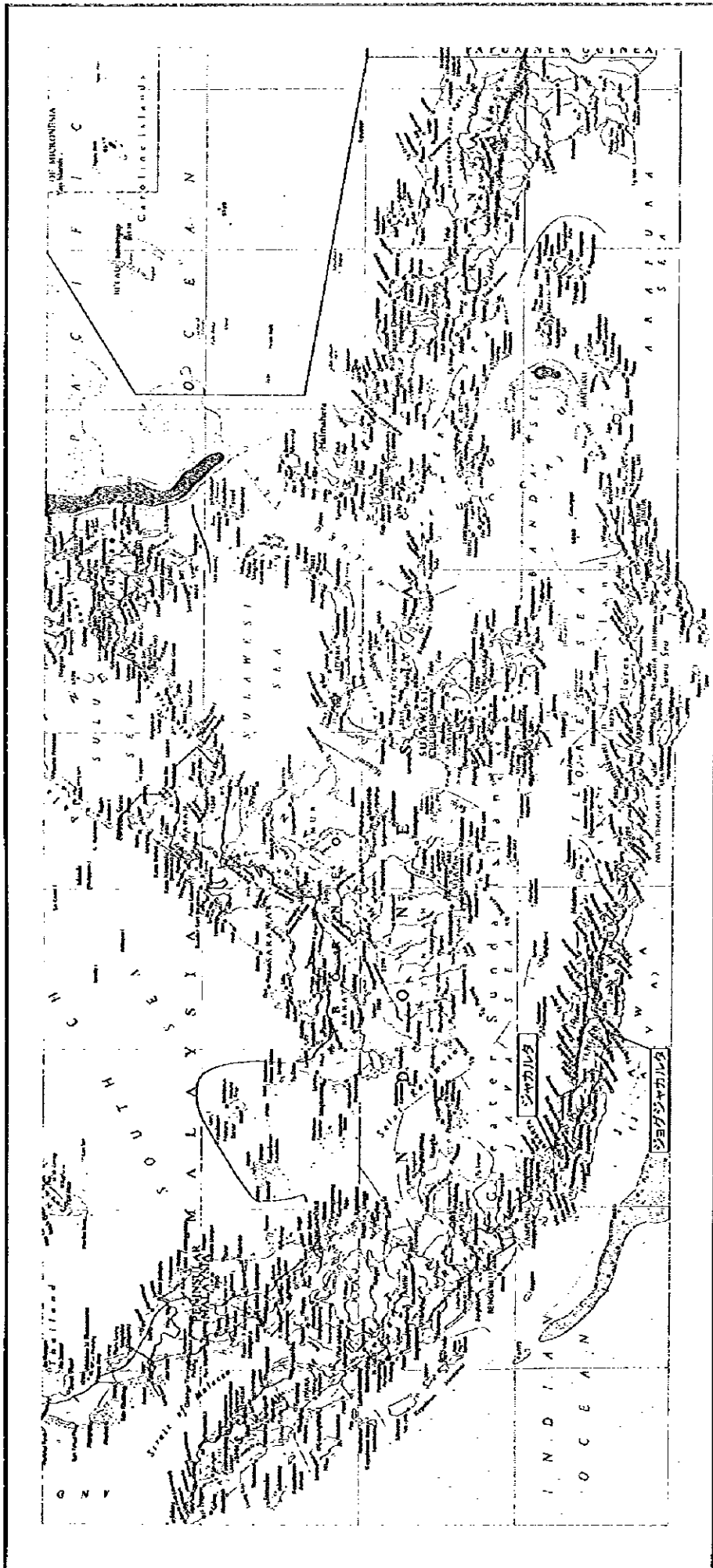
Finally, we hope that this report will contribute to further promotion of the project.

Very truly yours,



Tetsuo Shibata
Project Manager,
Basic Design Study Team
on the Project for Equipment Supply
to TV Training Center
NHK Integrated Technology Inc.

The Republic of Indonesia



Abbreviation

A/D	Analog to Digital Converter
B/W	Black and White Picture Monitor
CCU	Camera Control Unit
CG	Character Generator
CM	Color Monitor
D/A	Digital to Analog Converter
DVE	Digital Video Effect
EXT	External Signal
FS	Frame Synchronizer
ME	Mix and Video Effect
MM	Master Monitor
VSC	Vectorscope
VTR	Video Tape Recorder
WFM	Waveform Monitor
CCT	Compact Cassette Tape Recorder
CD	Compact Disk Player
DAT	Digital Audio Tape Recorder
DISC	Disc Player
MTR	Multichannel Tape Recorder
ORT	Open Reel Tape Recorder
SPK	Monitor Speaker

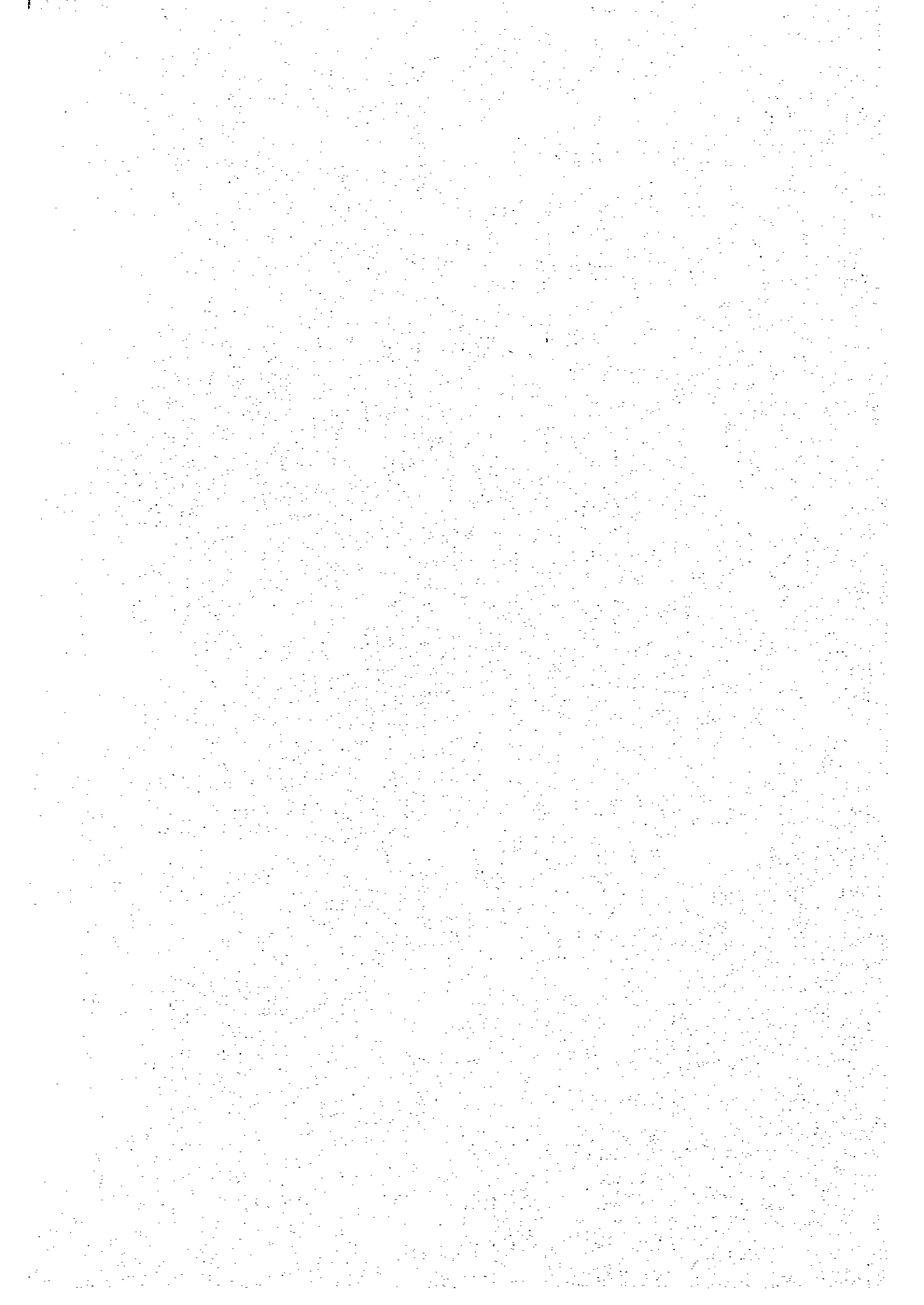
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Chapter 1

Background of the Project



Chapter 1 Background of the Project

1-1 Current Conditions and Problems of the Television Broadcasting Sector

In a country such as Indonesia, where there is so much diversity in terms of race, language and culture, giving the people a sense of national unity is an important government policy, and broadcasting has long been regarded as an important means of achieving this goal.

The state owned Televisi Republik Indonesia (TVRI) belongs to the Directorate General of Radio, Television and Film (RTF) of the Department of Information and carries out nationwide broadcasts. In addition, it conducts broadcasting locally over the metropolitan area of Jakarta.

TVRI broadcasts for 11.6 hours per day using 13 television broadcasting stations, 331 transmitting stations and 7 mobile production stations (small-scale outside broadcasting vans), and 81% of the national population is able to receive the broadcasts (1995).

The contents of broadcasts break down into 44% education and general culture programs, 28% news and information programs and 28% sports, religion and entertainment programs. 80% of all programs are produced by the Jakarta station for national viewing and the remaining 20% are produced independently by the regional stations.

Regarding the funding of TVRI, 80% of funds comes from income from receiving fees, 9% is covered by income from events, 6% is provided by state subsidy and 5% comes from leasing facilities and equipment out to the private broadcaster Televisi Pendidikan Indonesia (TPI) (figures from 1995).

In addition to TVRI, there are 5 more commercial channels: Rajawali Citra Televisi Indonesia (RCTI) broadcasts to Jakarta and Bandung, Surya Citra Televisi Indonesia (SCTV) broadcasts to Surabaya and Denpasar, AN-Teve broadcasts to Surabaya, TPI broadcasts nationwide and Indo-siar (IMV) broadcasts mainly to Jakarta.

TVRI has a work force of approximately 7,200. However, shortages of trained engineers are particularly apparent in the regional broadcasting

stations, which are thus unable to cope with the modernization of station facilities and the introduction of new technologies and, moreover, are not even in a position to properly operate and maintain equipment on a everyday basis.

It has become urgent for TVRI to implement a program of training that targets as many employees in as short a time as possible and covers all areas from the basic specialist training of new recruits to the practical training (using state-of-the-art equipment) of core engineers, who carry the responsibility for overseeing the modernization of broadcasting at their respective stations.

1-2 Background of the Project

The Television Training Center (TVTC) which belongs to the Department of Information and is responsible for carrying out the job training of TVRI staff, was established in 1970 through aid from the former West Germany. Ever since its start in 1962, the national broadcasting network of TVRI has developed at a rapid rate as a result of aid from various countries, but at the same time it has been faced with the need to quickly train and educate large numbers employees who have been recruited in order to keep up with the growth.

Whereas the Multi Media Training Center (MMTC) which was established through aid from Japan in 1984 and also belongs to the Department of Information, is a academic school for developing manager-class specialists, TVTC targets general station employees from new recruits to core personnel. The practical training courses offered by TVTC last for two months on average and are designed to provide broadcasting station staff members with general working skills and specialist know-how.

However, the training equipment and materials installed at TVTC have not been updated since 1978, when renewal was carried out under aid from the former West Germany in line with the changeover to color broadcasting. There are almost no new items of equipment. Around half the existing items of equipment are inoperable due to deterioration, and the items that are in working order are so old-fashioned and obsolete that they have become practically worthless for training purposes.

In contrast to the stagnating conditions at TVTC, under the sixth five year development plan, the modernization of facilities of television broadcasting stations is steadily progressing and the move to introduce new technologies to broadcasting stations is also rapid. In addition, technical innovations in the TV broadcasting sector is so remarkable as symbolized by the opening of private broadcasting stations with fully digitalized equipment.

In the past, when TVRI was in need of introducing new technologies, TVTC was the first to install such equipment and provided training for station employees, thereby helping each broadcasting station to smoothly introduce new technologies.

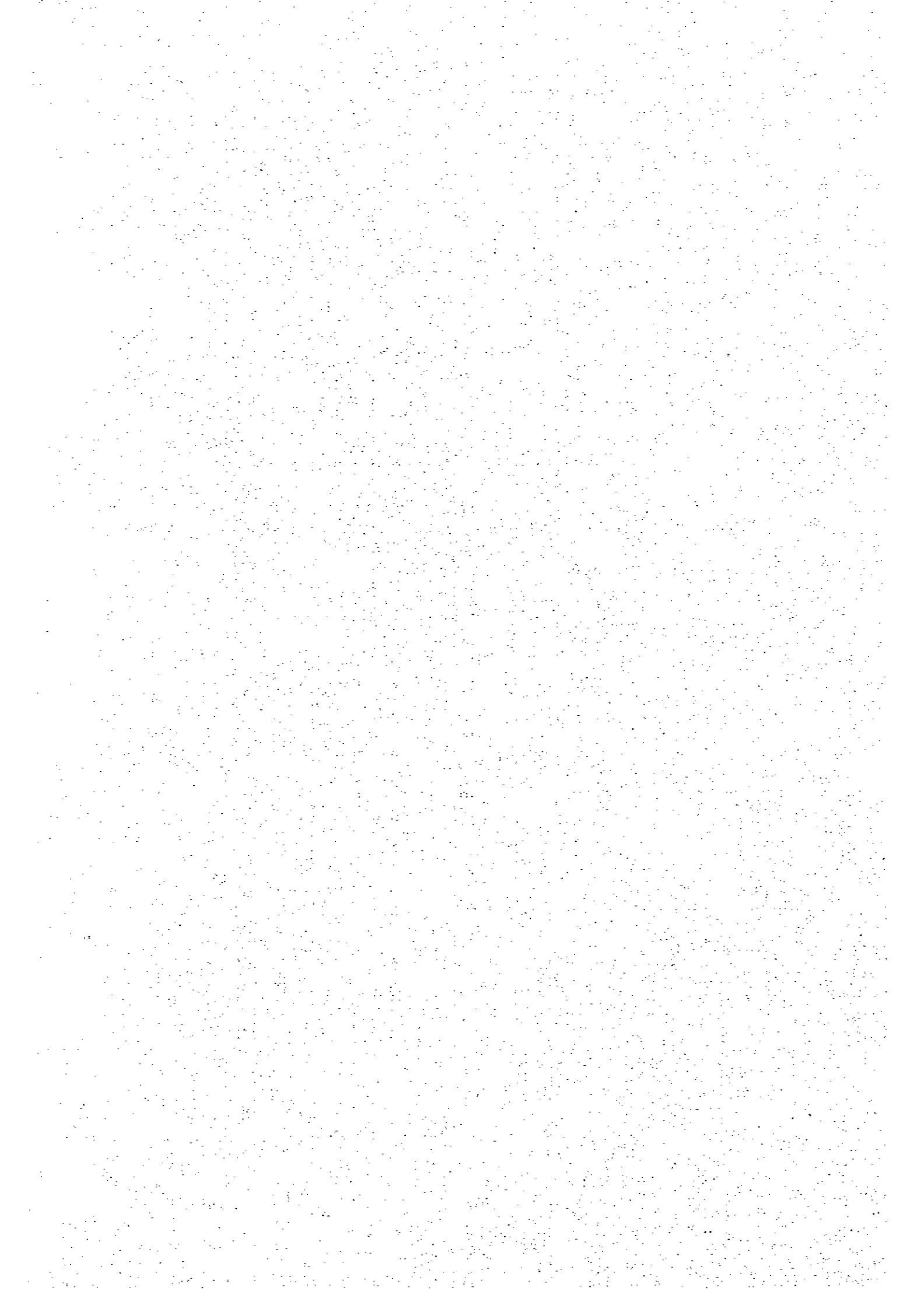
In 26 years after the establishment of TVTC, the total number of trainees is 9,626 and that of trainees who could pass the test certifying for completion is 6,425. The average rate of successful trainees during these 26 years is 67%, whereas in the recent 5 years the rate remains low at 44%.

This trend could partly be explained by increasing numbers of trainees and training items and a higher level of training. However, the present deficiencies of training equipment at TVTC place a massive handicap on the practical training-centered courses it offers, and there is little chance of the training proving beneficial in practice while the equipment at stations has little in common with the out-dated equipment of the center. The training currently offered by the TVTC is low in both efficiency and quality, and it is practically impossible for TVTC to conduct training that enables trainees to adapt to new technologies.

It was against this background that the Government of Indonesia requested the Government of Japan to provide cooperation in the renewal of the Television Training Center's training equipment, including digital equipment.

Chapter 2

Contents of the Project



Chapter 2 Contents of the Project

2-1 Objectives of the Project

The training conducted at TVTC to develop human resources for the national TV Broadcasting station (TVRI) helps the station fully demonstrate its function of nationwide broadcasting. The programs for promotion of public health, family planning, etc. are effectively broadcast, and through the nationwide broadcasting of programs produced by regional stations, the regional disparities are being rectified and the mutual understanding among different races deepened, thus the training contributes to the promotion of the national development plan.

The Project intends to renew and enhance the deteriorated equipment of TVTC in order to revitalize the training offered by the Center.

2-2 Basic Concept of the Project

The main training equipment in use at TVTC dates back to the time when the center was established (1970). Except for some partial renewal in 1978 in line with the changeover to color broadcasting, there has been almost no equipment renewal or new equipment installation. Around half the existing equipment is inoperable due to deterioration, and the items that are in working order are out-dated and thus greatly reduce the effectiveness of the practical training-centered education offered by the center.

In view of these circumstances, based on the concepts mentioned below, the Project shall be implemented toward the realization of two types of training; one is to train employees to be adaptable to equipment currently owned by broadcasting stations, inclusive on equipment for basic training of new recruits, and also of training new technologies for leading personnel, a core in future for modernization of the stations, and the other is training corresponding to new technologies that are being planned for introduction to broadcasting stations.

- ① The basic concept shall be renewal of deteriorated training equipment. However, additional items considered to be essential for training shall be newly procured.
- ② Consideration shall be given to securing compatibility with major items of equipment at regional stations.
- ③ The ideal items of equipment shall be selected from the following three categories: practical training equipment indispensable for basic training, equipment suited to existing training contents and, equipment that can be used in the training of new technologies in the future.
- ④ The scale of equipment shall be set to conform with existing facilities and the training environment at TVTC.
- ⑤ Consideration shall be given to the ease of parts procurement and maintenance when selecting countries where equipment shall be obtained.

2-3 Basic Design

2-3-1 Design Concept

For this Project, equipment corresponding to the contents of training will be selected. Digital equipment, concentrating on equipment directly related to program production, will be introduced so that adequate training can be given in new technology and adjustments can be readily made to upcoming changes in the system. In this way, training curriculum will be augmented and enhanced, and maintenance will be implemented easily.

(1) Selection of equipment

In principle, equipment for training is selected based on the following criteria.

- ① Compatibility with the training curriculum at present and in the future.
- ② Emphasis on correlation with equipment currently at the national television station, with attention given especially to compatibility in terms of operation.
- ③ Ease of maintenance, including availability of spare parts, in addition to convenience for training, considering the level of technology at the local site.
- ④ Due consideration also given to coordination with existing equipment used in relation to the Project.

(2) Equipment specifications

In principle, equipment is designed in compliance with ITU-R technical standards and in full consideration of durability and electromechanical safety.

(3) Scope of equipment replacements

The following scope of equipment is targeted. (See Figure 2-3-1)

- ① Television studio related
Dimmers, camera units, video equipment, audio related peripheral equipment
- ② VTR editing equipment
- ③ Maintenance equipment

- ④ Transmission equipment
- ⑤ Equipment for basic practical training and for experiments
- ⑥ Outdoor recording equipment

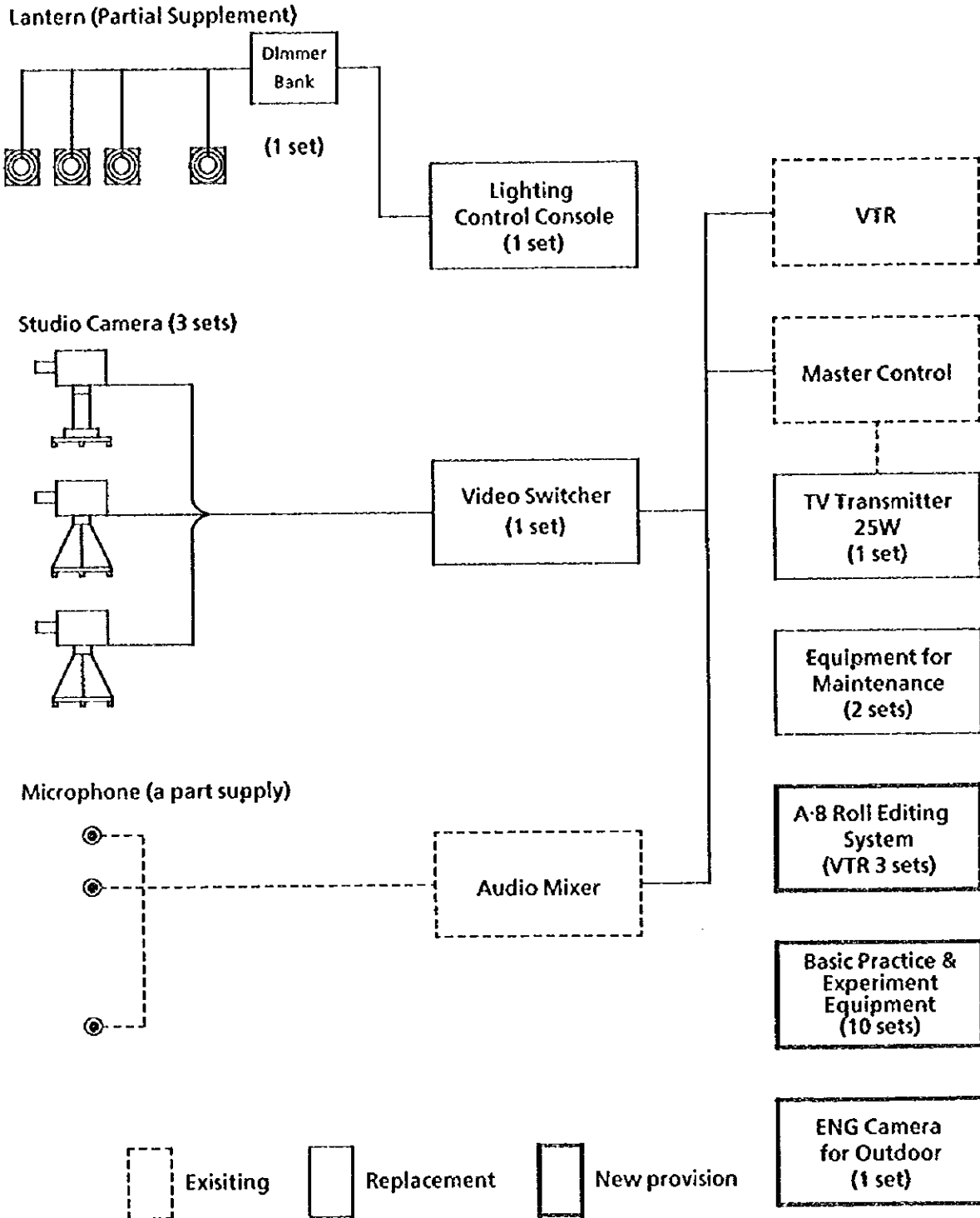


Figure 2-3-1 Relation between Existing and Supplying Equipment

2-3-2 Spare Parts

The thinking regarding the supply of spare parts to TVTC under the Project can be summarized as follows.

(1) Basic Thinking

① Only items that can be easily replaced by local staff shall be considered.

② Spare parts consisting mainly of printed circuit boards and units for major equipment shall be supplied, with the aim of enabling the procured equipment to operate trouble-free for approximately 3 years after handing over.

However, in light of the fact that suppliers guarantee equipment free of charge for 1 year, spare parts other than expendable items shall not be considered for this period.

(2) Range of Spare Parts

Spare parts shall cover printed circuit boards, units and expendable items.

1) Printed Circuit Boards and Units

Printed circuit boards and units shall possess designated electrical performance levels and be easily replaceable. (Replacement, repair and reuse shall be possible.)

2) Expendable Items (excluding video and audio tape)

① Lamps and Fuses

Items that become unusable as a result of disconnection, etc. (replace after wearing out)

② Relays, Switches and Magnetic Heads

Items in which performance deteriorates due to mechanical abrasion (replace according to hours of use, etc.)

3) Order of Priority of Spare Parts

Items that have major effects on systems if they break down, and items that have a relatively higher incidence of breakdown (power supply units, etc.) shall be given priority in supply.

4) Spare Parts Budget Measures

The way in which spare parts are used differs according to the equipment model in question. However, budget measures by model shall be instituted to secure approximately 3 years of trouble-free operation.

2-3-3 Basic Design

(1) Television studio Equipment

1) Dimmer

Installed in the dimmer bank room, the dimmer system is comprised of dimmer units that employ semiconductor thyristor at a dimming capacity of 2 to 10kW. An electronic connection type is used to facilitate selection and control of optional dimmers from the light dimmer table installed in the lighting control room. Connections between dimmer table and dimmer units and the status of dimming are recorded in memory, and there is a function that enables successive playback. The total capacity of the dimmer bank is the same as the existing one.

Concept Figure of Lighting System is shown in Figure 2-3-2.

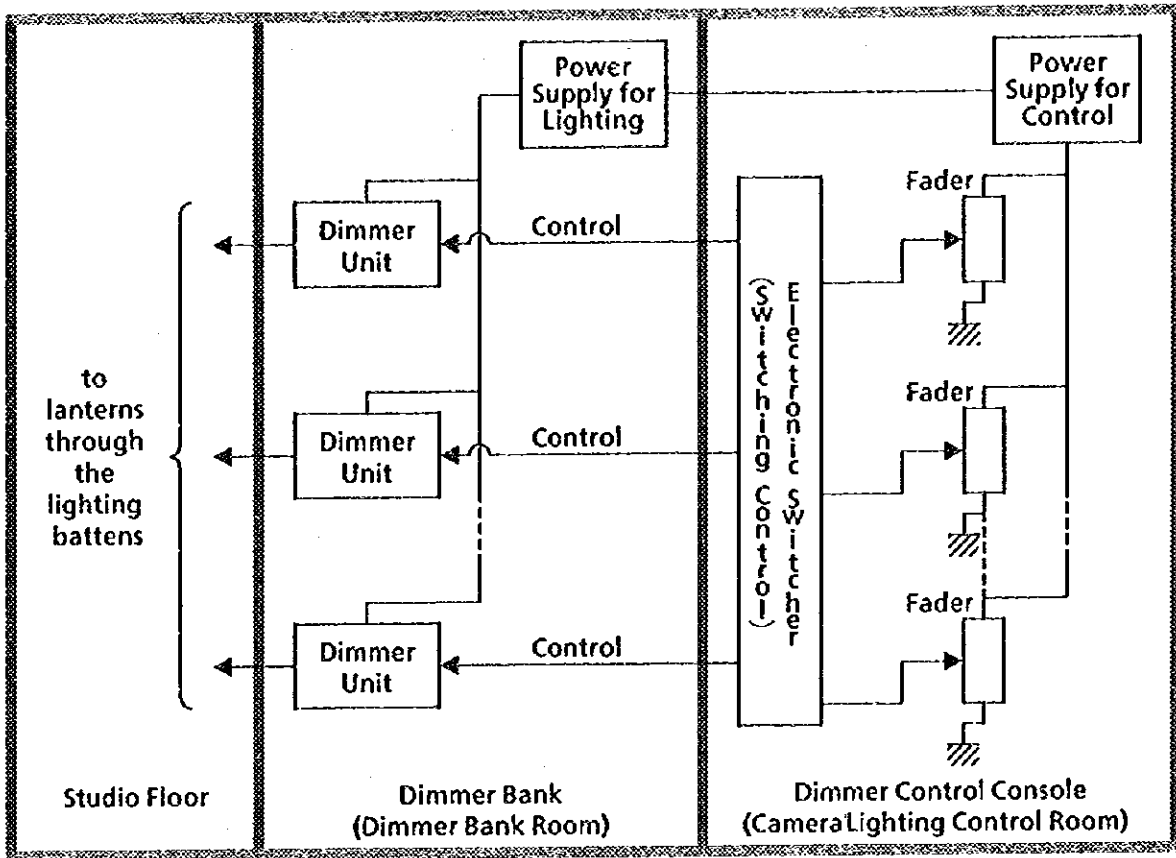


Figure 2-3-2 Concept Figure of Lighting System

2) Studio camera

Three units of cameras with 3 type CCD (Charge Coupled Device) will be installed. The conventional unit serving as a device to pickup scenes employed an image pickup tube, but at present, it is being replaced mainly with the CCD camera, which has much longer service life. Consequently a CCD type is used.

3) Video equipment

Video equipment consists mainly of video switcher (digital type). Essentially, transmission is by digital signal, yet peripheral devices, such as sync signal generator or picture monitor, will also be provided.

Concept Figure is shown in Figure 2-3-3.

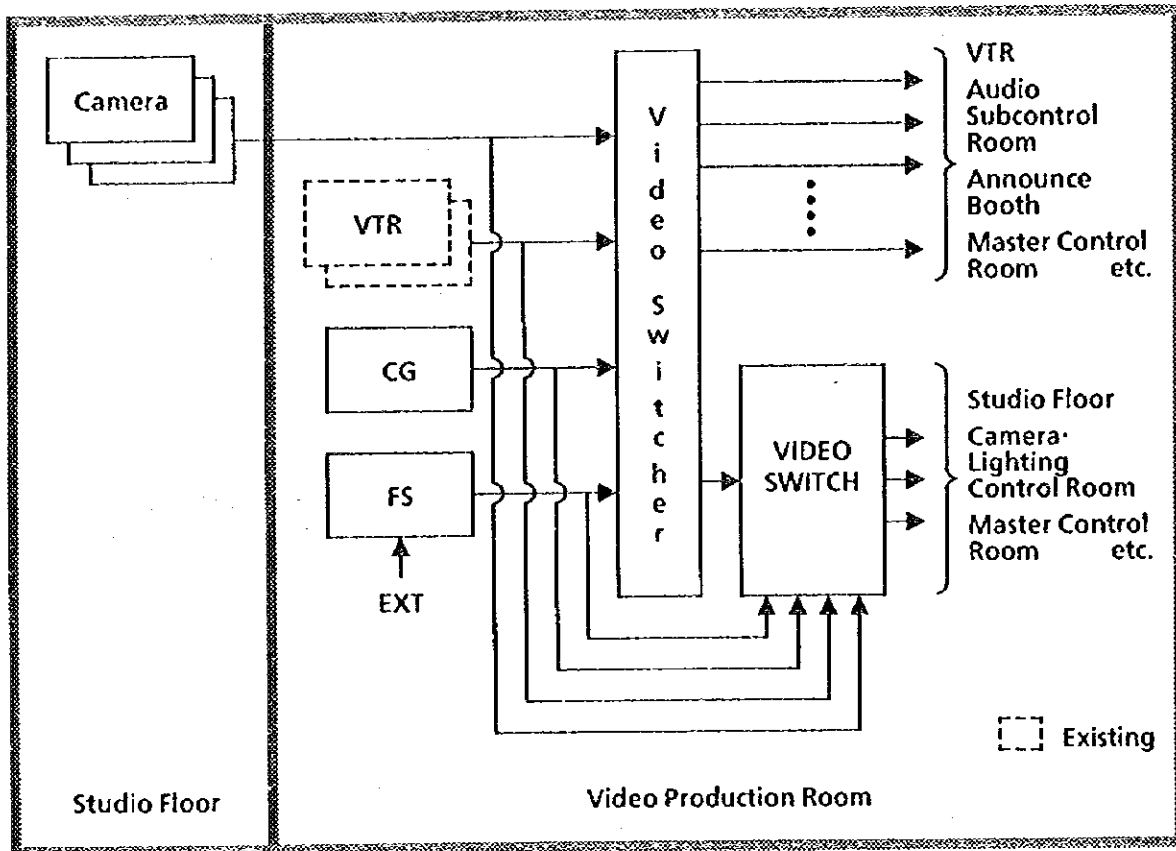


Figure 2-3-3 Concept Figure of Video System

4) Audio equipment

This consists of the existing audio mixer intact. Peripheral equipment provide will include, a new type of DAT (Digital Audio Tape) recorder, a CD (Compact Disc) player, and monitor speakers.

Concept Figure is shown in Figure 2-3-4.

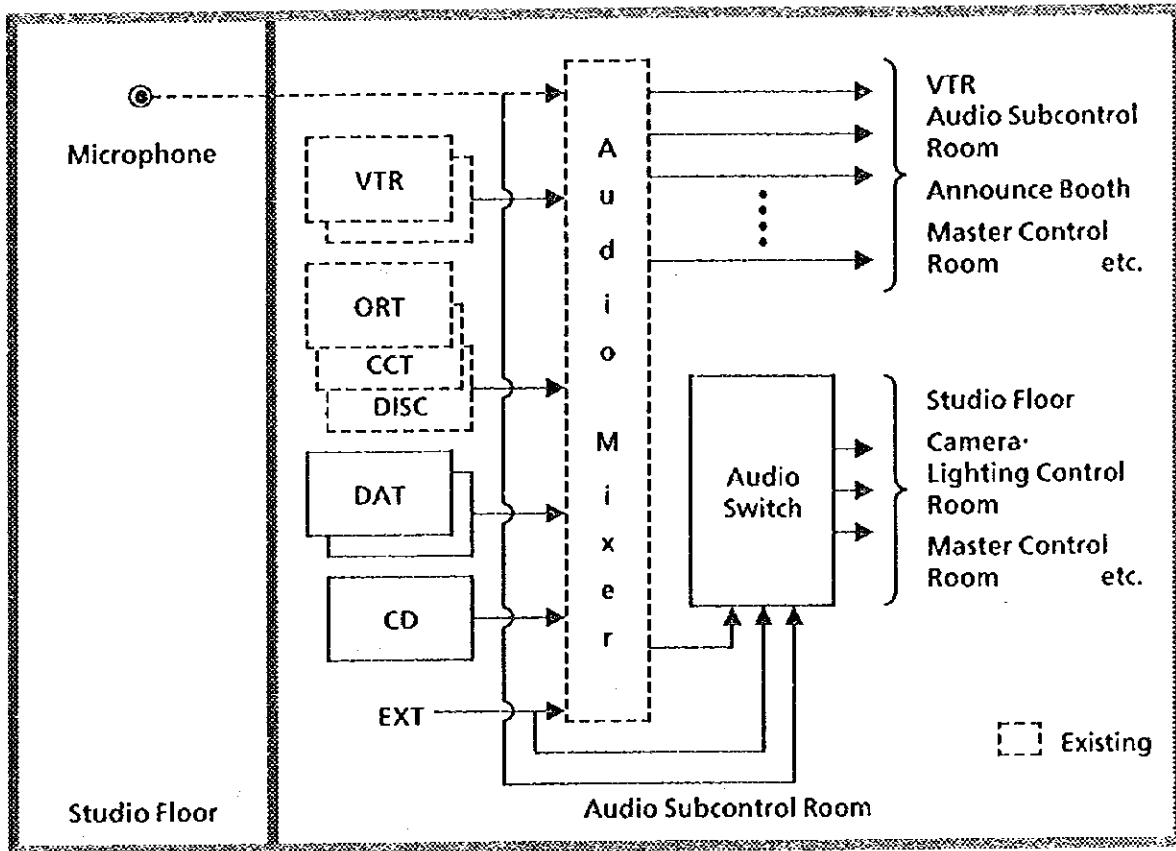


Figure 2-3-4 Concept Figure of Audio System

(2) VTR editing equipment

New A-B roll type (2 playback units, 1 recorder) editing equipment will be provided in an effort to augment training in program editing technology. Diverse types of editing are possible with this system. For example, the playback pictures of two VTR units can be overlapped and each type of processing can be implemented, thanks to use of video/audio switching, mixing devices and other special-effects apparatus.

What is more, in fiscal 1997 the same type of digital equipment is scheduled to be installed at stations in TVRI Jakarta, Padang, Semarang and Dili.

Concept Figure of A-B roll Editing System is shown in Figure 2-3-5.

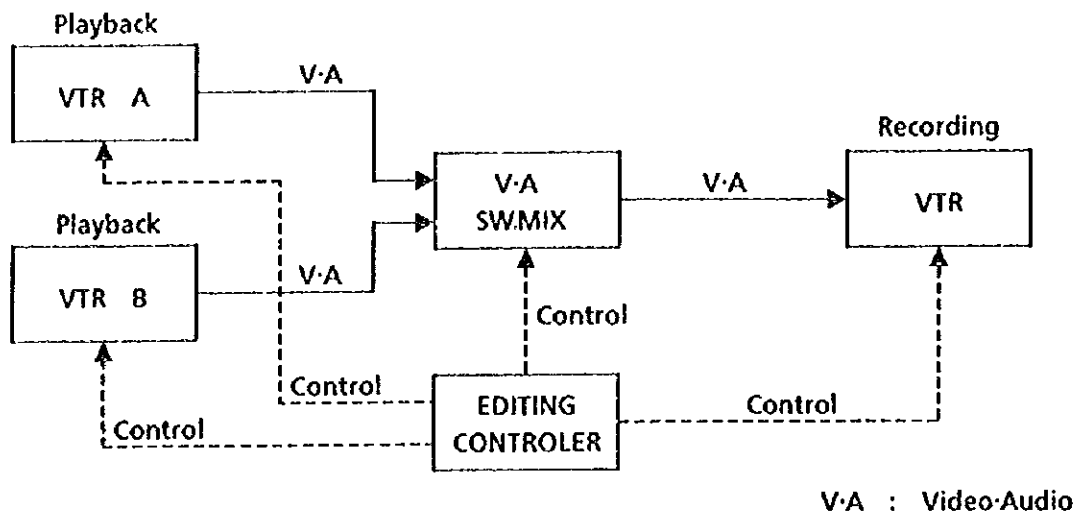


Figure 2-3-5 Concept Figure of A-B Roll Editing System

(3) Maintenance equipment

Measuring equipment will be provided for measuring general characteristics of video and audio, for use in maintenance training and for maintenance of training equipment.

(4) Transmission equipment

Under the Project, one set of a output-power (25W) television transmitter will be provided. With respect to TV sound transmission, some private broadcasters already provide multi-channel sound broadcasting, and the national television station must, of course, also provide the same. A multi-channel sound modulator will be included in the transmitter for use as training equipment. Various related measuring instruments will also be supplied.

(5) Equipment for basic practical training and for experiments

Equipment for basic practical training in electrical circuits and for experimenting will be provided. If it is assumed that each set of equipment will be used by a group of two trainees, ten sets of equipment will be provided so that ten groups can undergo training simultaneously.

(6) News gathering equipment

One set of portable lighting equipment will be supplied, together with one ENG (Electronic News Gathering) camera, for training in news gathering.

2-3-4 Equipment Plan

Table 2-3-1 List of Equipment (1/2)

Equipment	Qty.	Remarks	
I EQUIPMENT FOR TV STUDIO			
1 STUDIO LIGHTING SYSTEM			
(1) Lighting control console	1 set	100 circuits controlled by pc 2kW×96, 4kW×4 dimmer unit	
(2) Dimmer bank	1 set		
(3) Spot light	30 units		
(4) Scoop light	20 units		
(5) Background light	30 units		
2 STUDIO CAMERA SYSTEM			
(1) 3 CCD digital studio type camera	3 sets	zoom lens(×20). include CCU for studio camera, with pan head	
(2) Studio pedestal	1 set		
(3) Tripod with pan head and dolly	2 sets	for studio camera	
(4) Tri-axial cable	3 sets	for camera, include connectors and panel	
(5) BW monitor (14")	3 sets	for camera control	
(6) Waveform monitor	3 sets	for camera control	
(7) Floor color monitor with stand (29")	2 sets	for studio	
(8) Test chart	3 sets	for camera adjustment	
(9) Arm crane	1 set	for portable camera	
3 VIDEO EQUIPMENT SYSTEM			
(1) Digital video production switcher	1 set	12 input, 2Mix and Effect for preview in the subcontrol room	
(2) BW monitor (14")	8 sets		
(3) Color monitor (20")	8 sets	for program monitor	
(4) Character generator	1 set	include change over switch video switcher is digital type	
(5) Sync generator	2 sets		
(6) Video and Audio routing switcher	1 set	with patching cord	
(7) Digital video distributor	1 set		
(8) Frame synchronizer	1 set		
(9) Waveform monitor	1 set		
(10) Vectorscope	1 set		
(11) D/A converter	2 sets		
(12) A/D converter	3 sets		
(13) Video patching panel	1 set		
(14) Production switcher console	1 set		
(15) System rack	4 sets		
(16) Color master monitor (14")	1 set		with input selector
4 AUDIO EQUIPMENT SYSTEM			
(1) Digital multichannel audio tape recorder (8 channel)	1 set		with amplifier
(2) Digital cassette audio tape recorder	2 sets		
(3) Compact disc player	1 set		
(4) A/D converter	1 set		
(5) D/A converter	1 set		
(6) Audio distributor	1 set		
(7) Gun microphone	1 set		
(8) Wireless microphone	1 set		
(9) Monitoring speaker	5 sets		
(10) Intercom system	1 set		

Table 2-3-1 List of Equipment (2/2)

Equipment	Qty.	Remarks
(11) Dynamic noise limiter	1 set	analog type, with patching cord
(12) Boom stand	1 set	
(13) Audio patching panel	2 sets	
5 OTHERS		
(1) On the Air lamp controller	1 set	
(2) On the Air lamp	1 set	
(3) Chair	1 set	
II EDITING SYSTEM		
1 A-B ROLL EDITING		
(1) Digital VTR	2 sets	
(2) Digital VTR	1 set	for playback
(3) Editing controller	1 set	for recording/playback
(4) Video switcher	1 set	
(5) Audio mixer	1 set	8 input, 1 Mix and Effect
(6) Character generator	1 set	8 input
(7) Digital video effect	1 set	
(8) Color monitor (20")	6 sets	
(9) Waveform monitor	1 set	2 monitors include speaker
(10) Vectorscope	1 set	
(11) Audio monitoring speaker	1 set	
(12) Digital audio tape recorder	1 set	with amplifier
(13) Cassette type audio tape recorder	1 set	
(14) Audio time delay unit	1 set	
(15) Console	1 set	
(16) A/D, D/A converter	1 set	
2 SIMPLE EDITING		
(1) Digital VTR	1 set	1:1 editing
(2) Color monitor (20")	1 set	for recording with speaker
III AUDIO AND VIDEO MEASURING EQUIPMENT		
(1) Audio measuring instrument	1 set	
(2) Video measuring instrument	1 set	
IV TRANSMITTER EQUIPMENT		
(1) TV transmitter (25W)	1 set	
(2) TV demodulator	1 set	with multichannel audio modulator
(3) Audio analyzer	1 set	
(4) Modulation analyzer	1 set	
V EQUIPMENT FOR ELECTRONIC LABORATORY		
(1) Digital multimeter	10 sets	
(2) Digital experiment kit	10 sets	
(3) Digital display oscilloscope	10 sets	
(4) Multifunction generator	10 sets	2 channels, 100MHz
VI EQUIPMENT FOR ENG		
(1) Digital ENG camera	1 set	
(2) Hand lamp	1 set	with standard lens
VII COMMON		
(1) Spare parts	1 set	
(2) Tools	1 set	
(3) Materials for installation	1 set	

2-3-5 Basic Design Drawings

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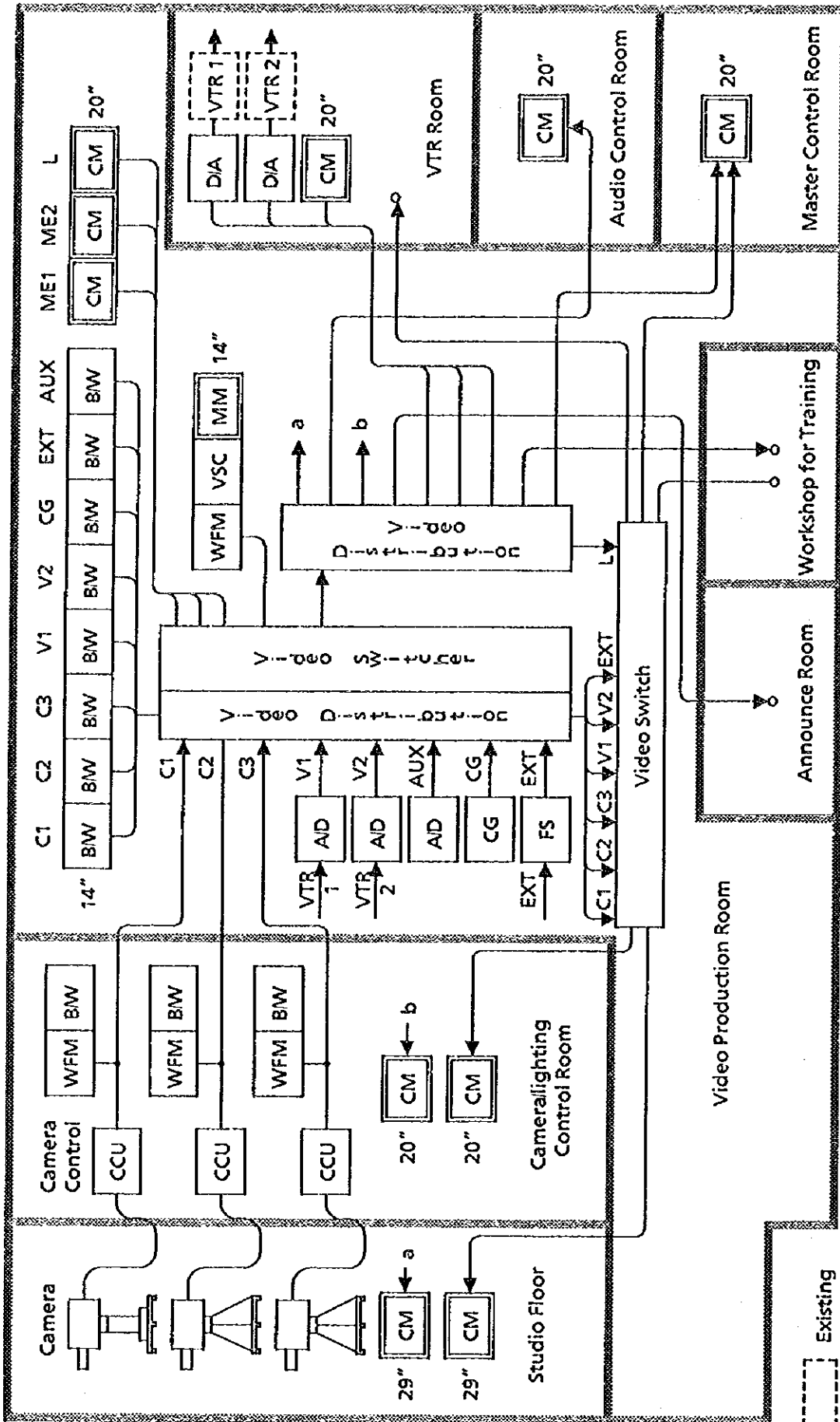


Figure 2-3-6 Main Video System

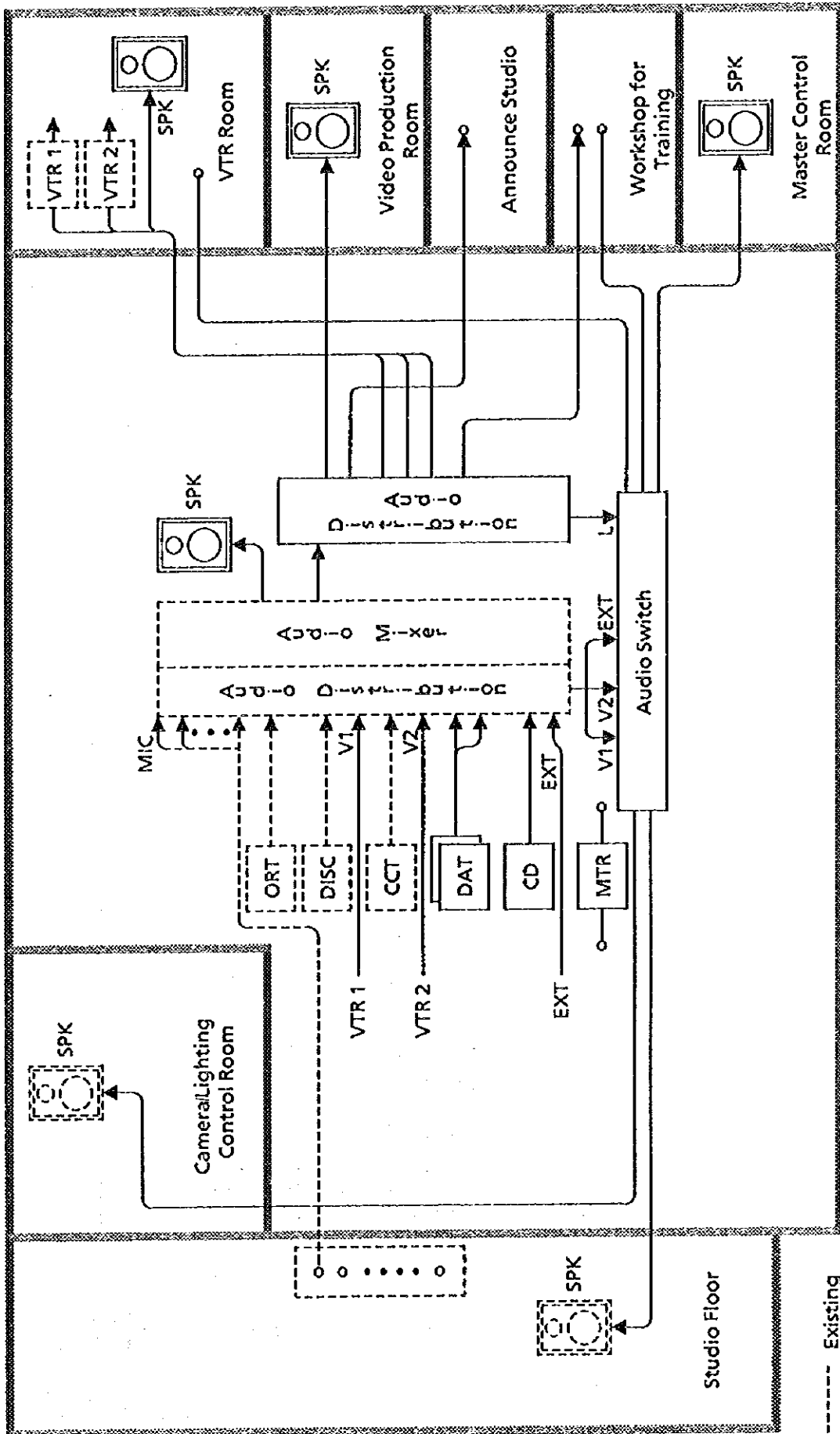


Figure 2-3-7 Main Audio System

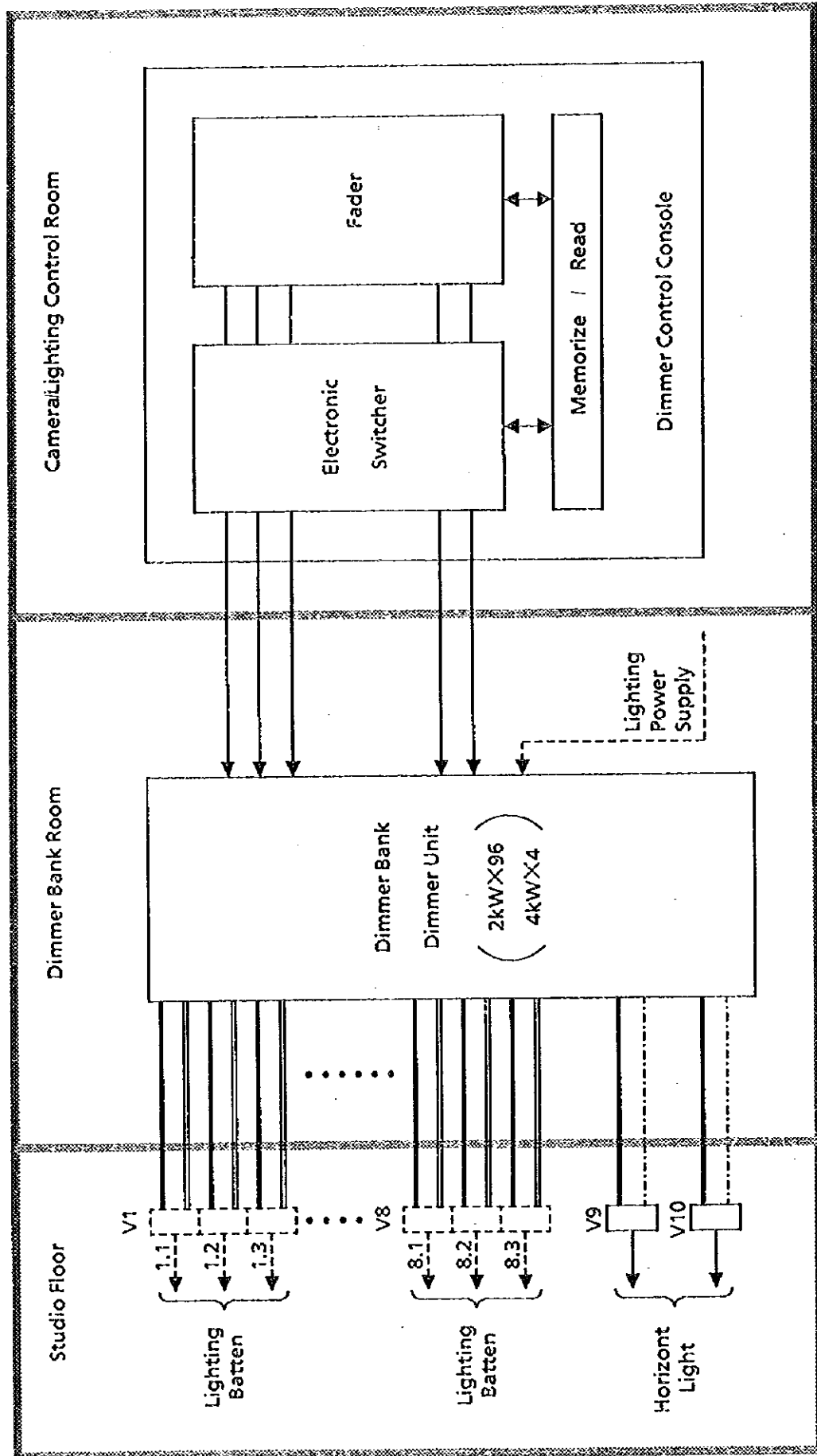


Figure 2-3-8 Main Lighting System

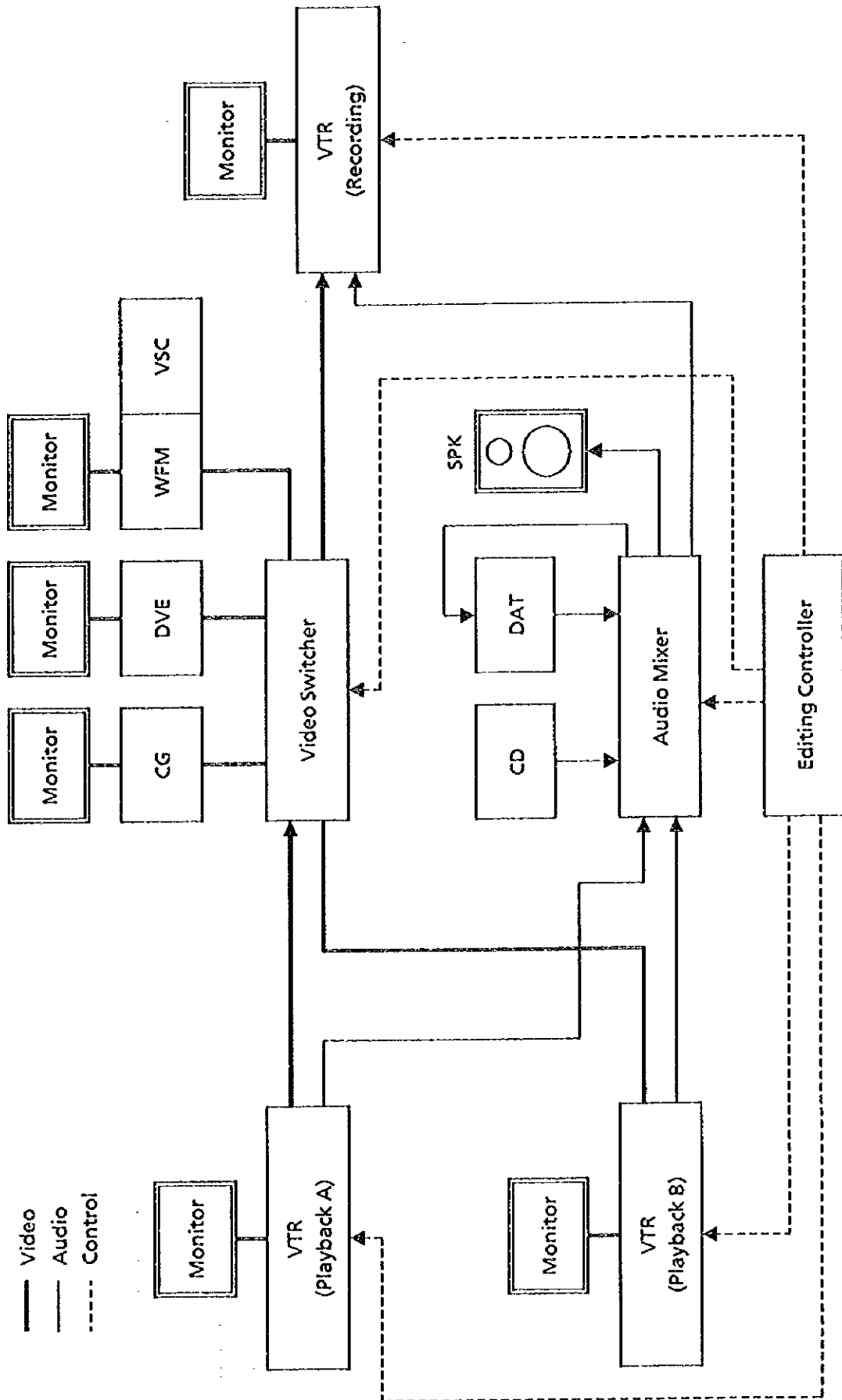


Figure 2-3-9 VTR Editing (A-B Roll) System

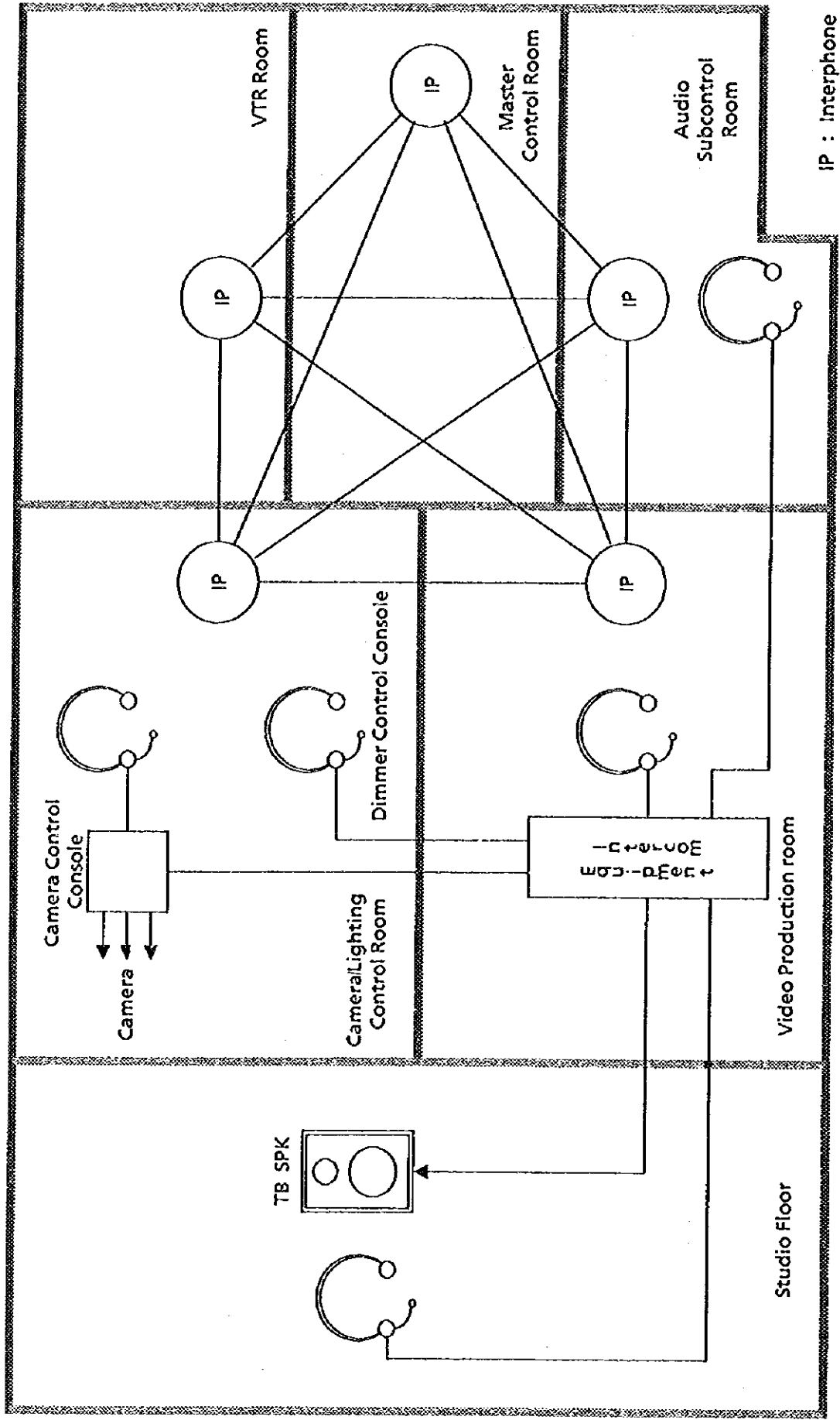


Figure 2-3-10 Communication System

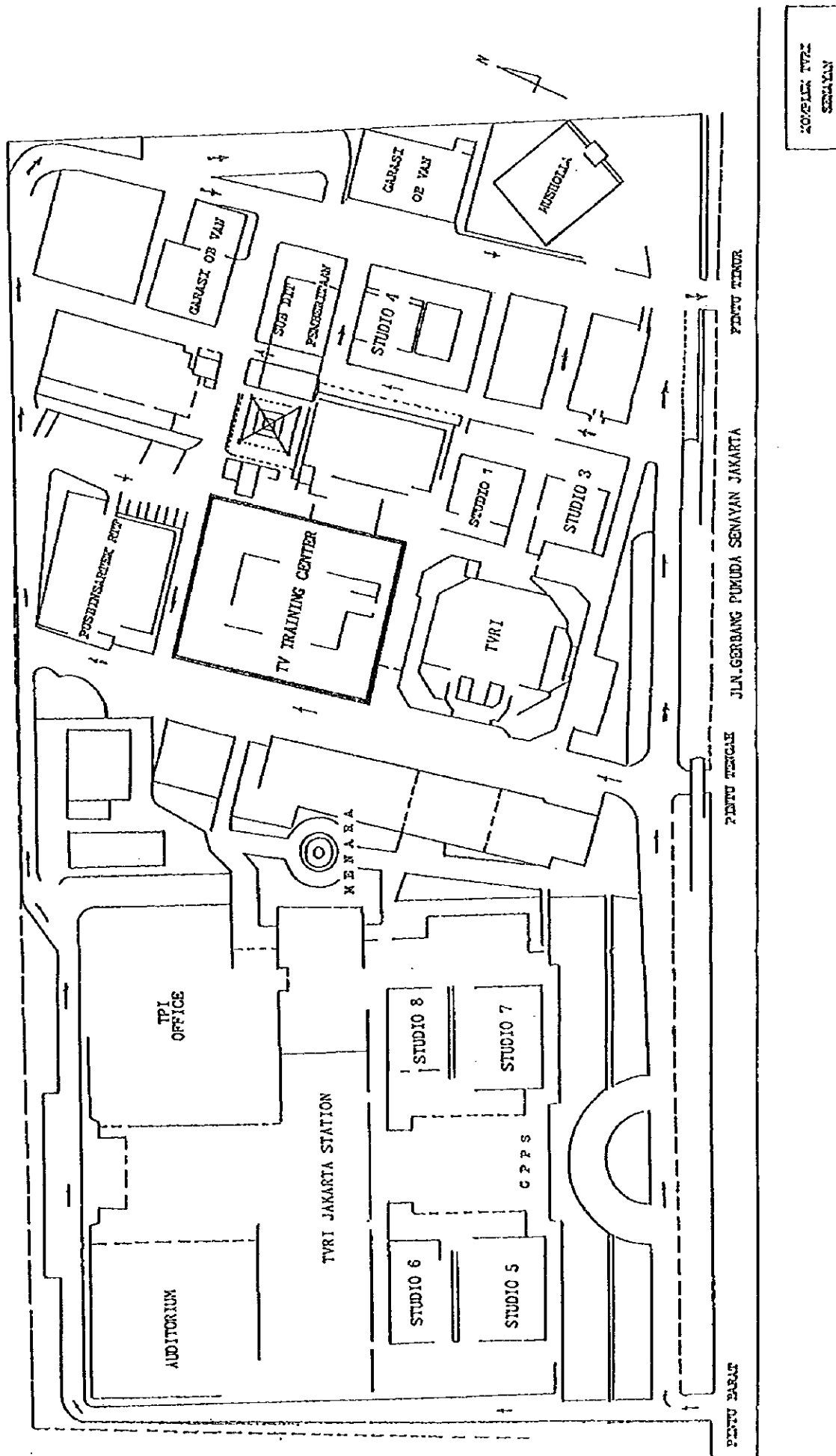
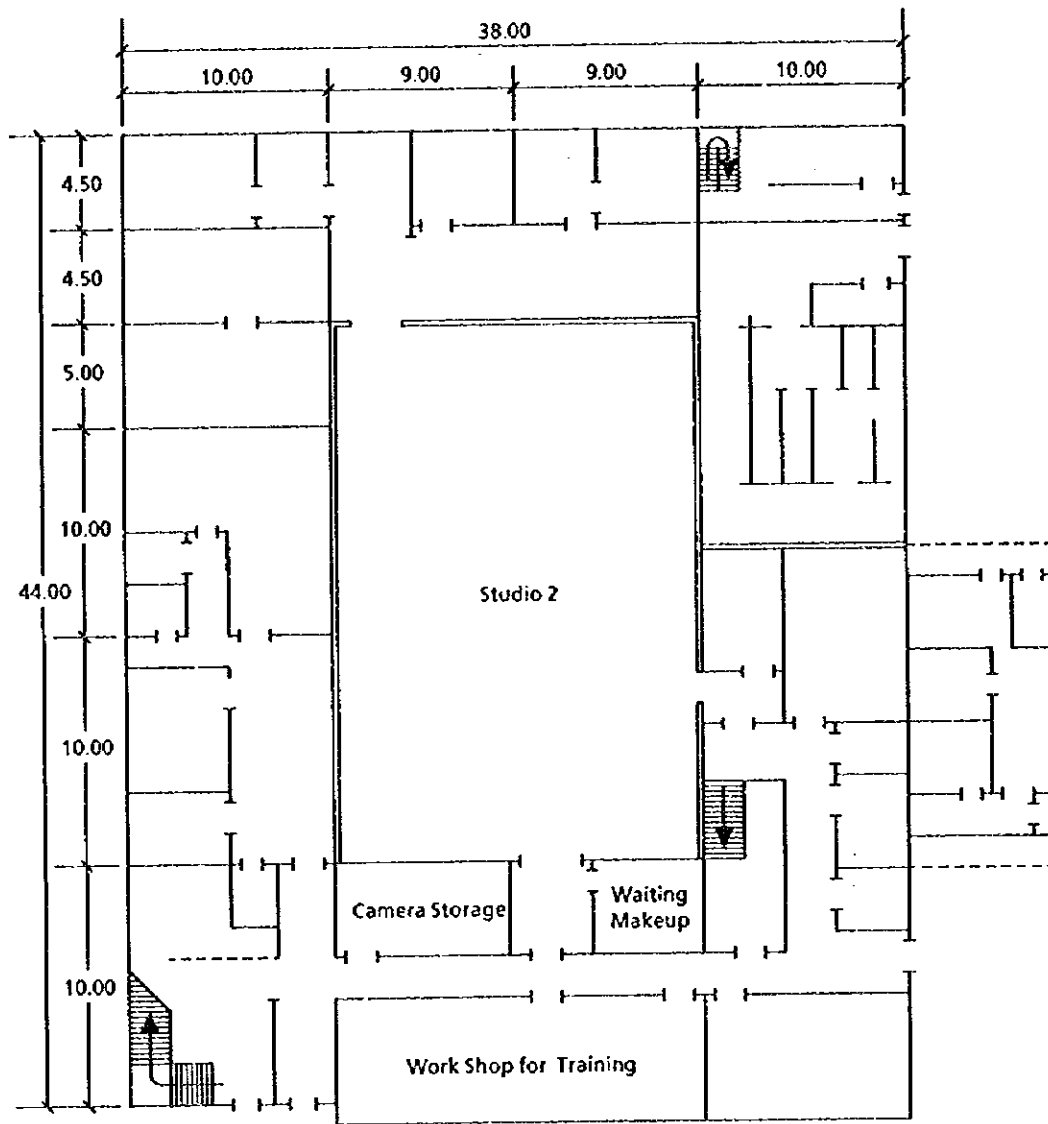
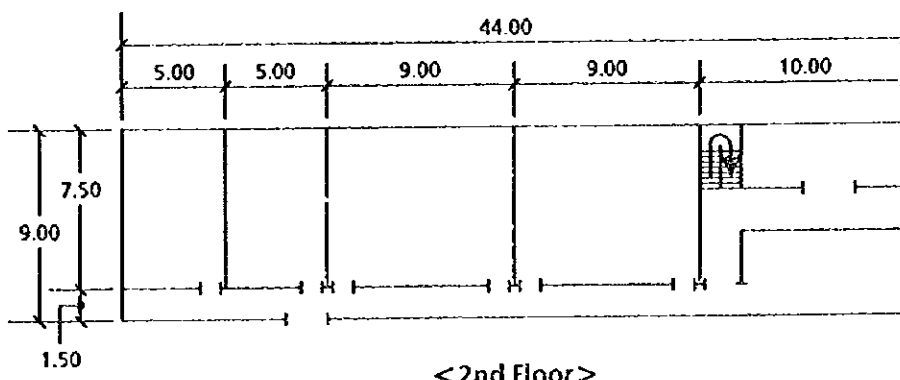


Figure 2-3-11 TVTC Site Plan

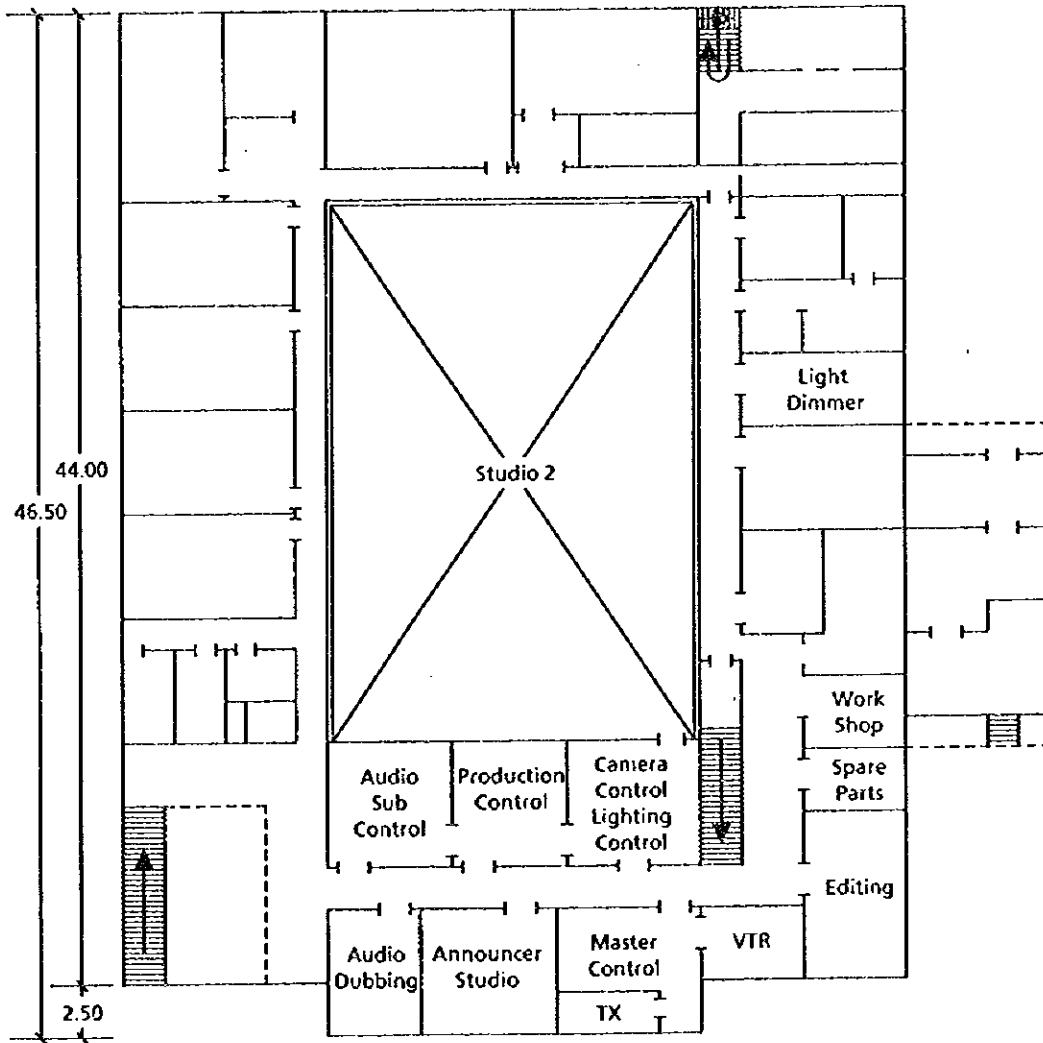


<Ground Floor>

Figure 2-3-12 TVTC Building Plan (Ground Floor)



<2nd Floor>



<1st Floor>

Figure 2-3-13 TVTC Building Plan (1F, 2F)

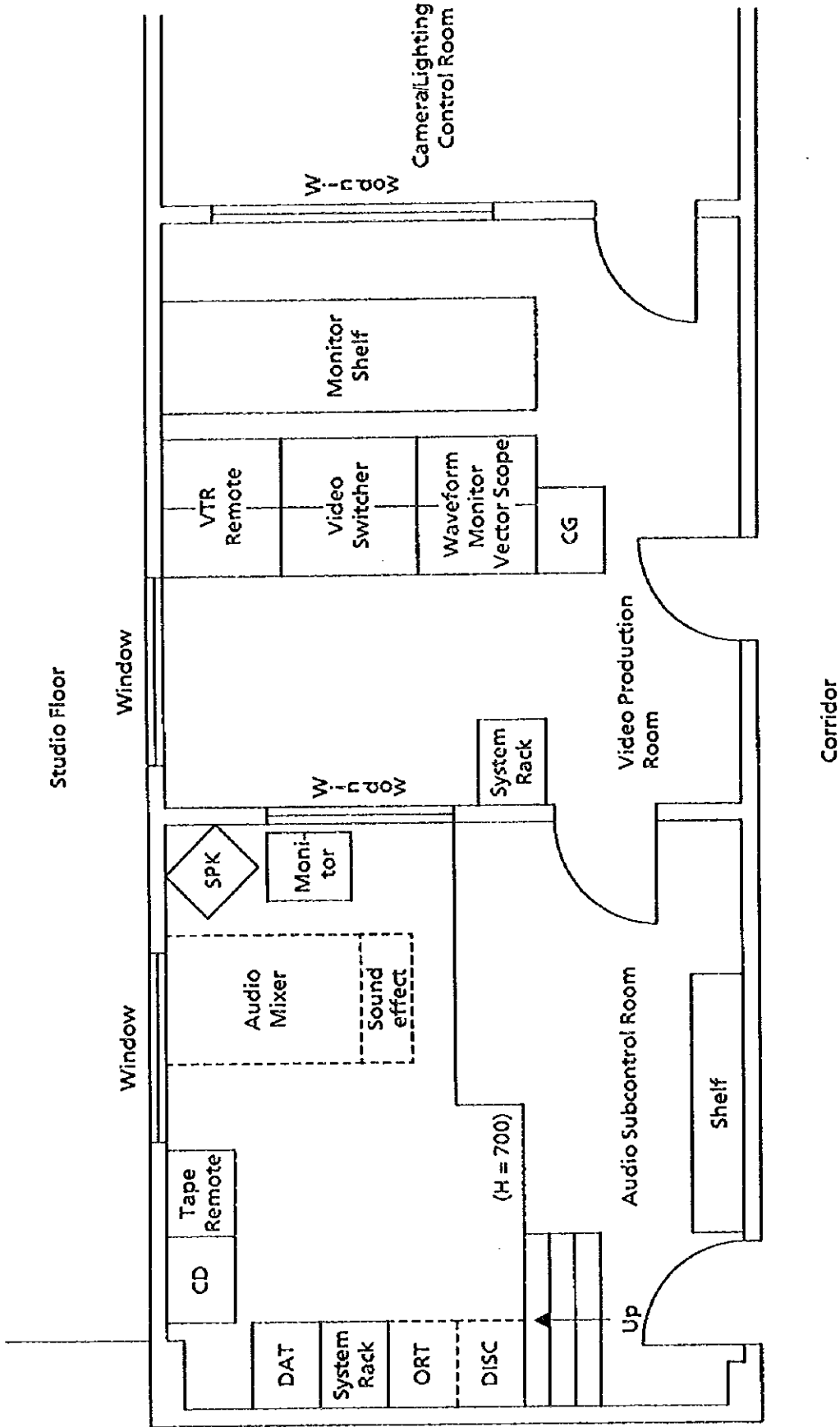


Figure 2-3-14 Equipment Layout of Video Production/Audio Sub Subcontrol Room

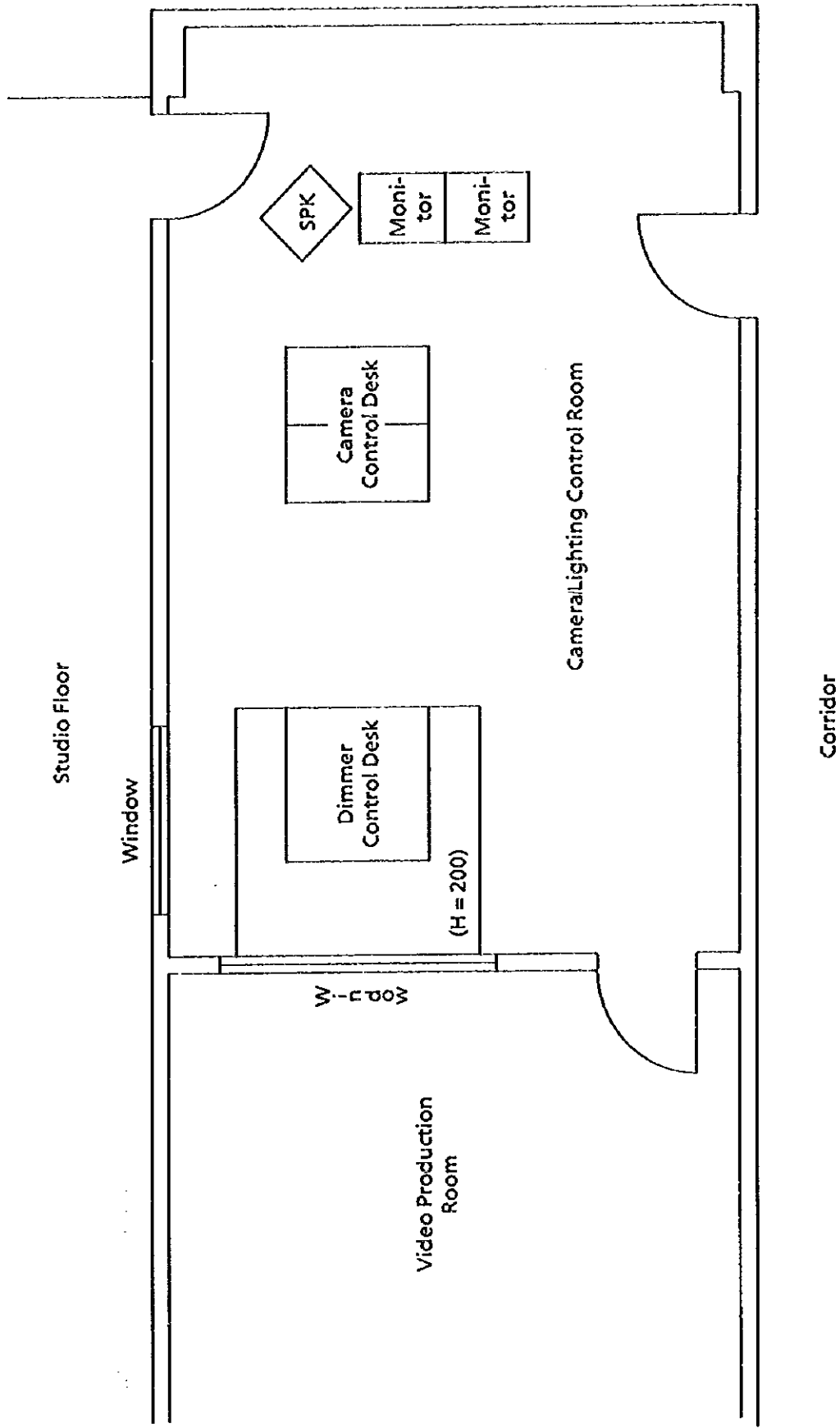


Figure 2-3-15 Equipment layout of Camera/Lighting Control Room

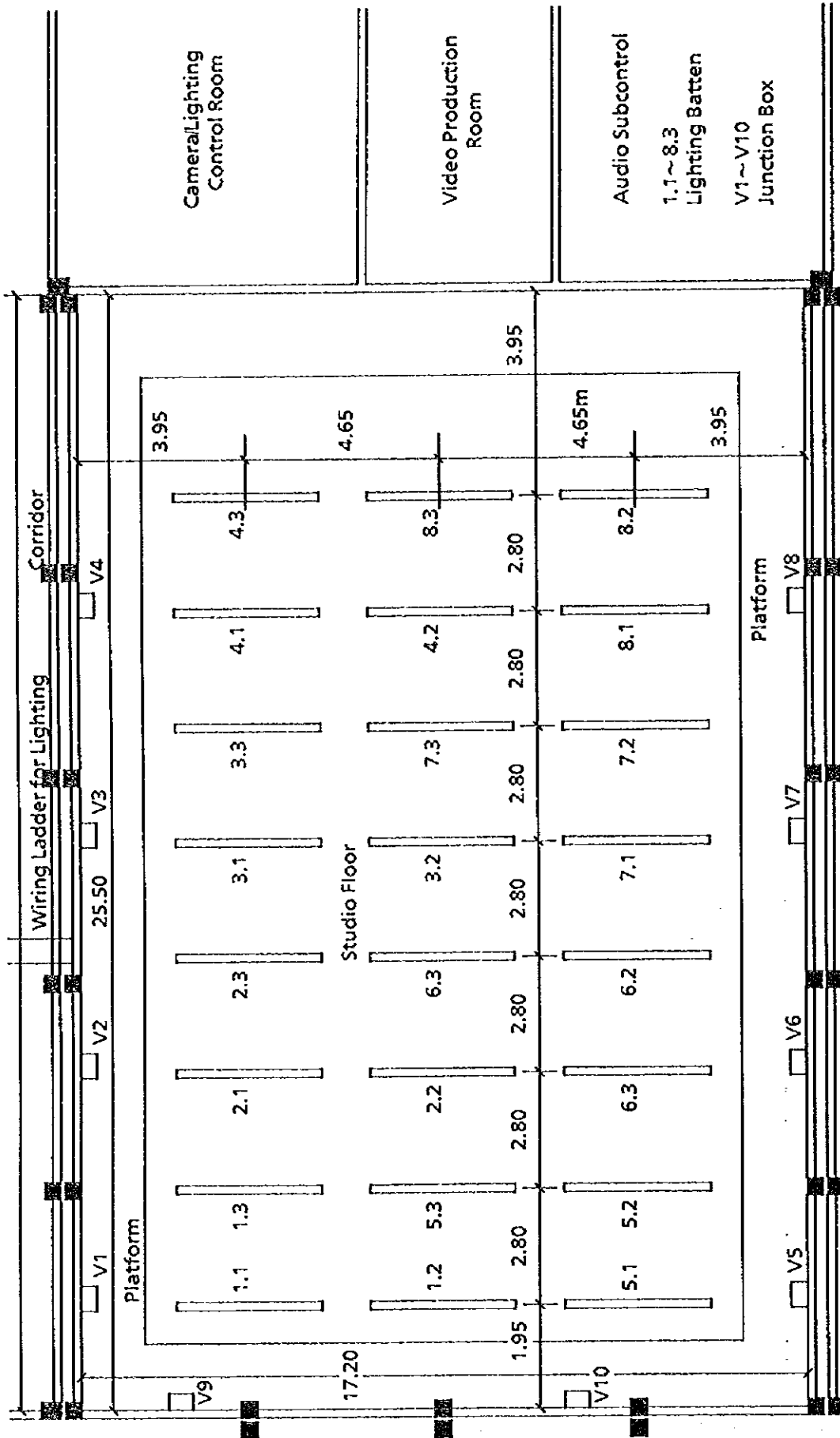


Figure 2-3-16 Layout of Lighting Batten

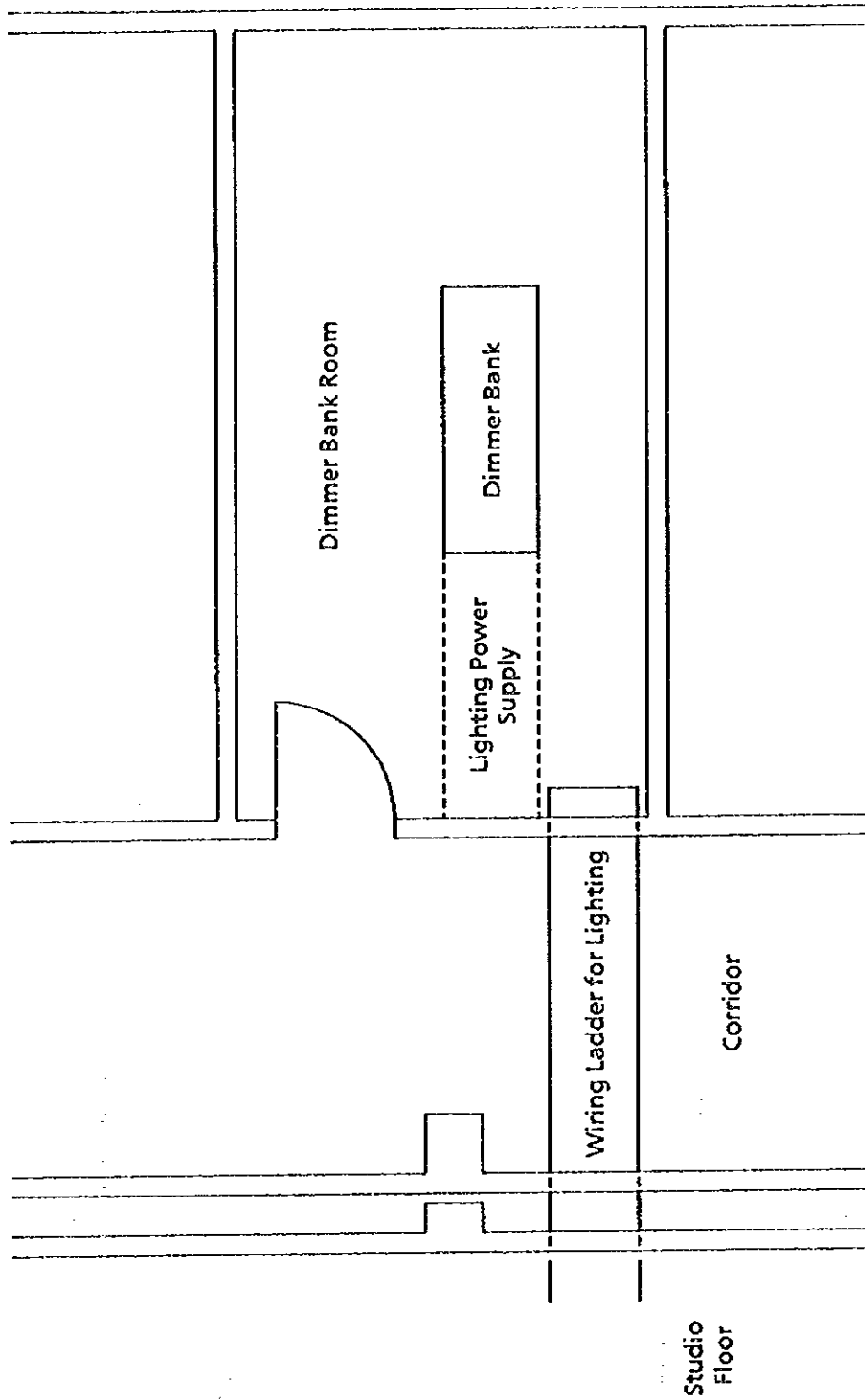


Figure 2-3-17 Equipment Layout of Dimmer Bank Room

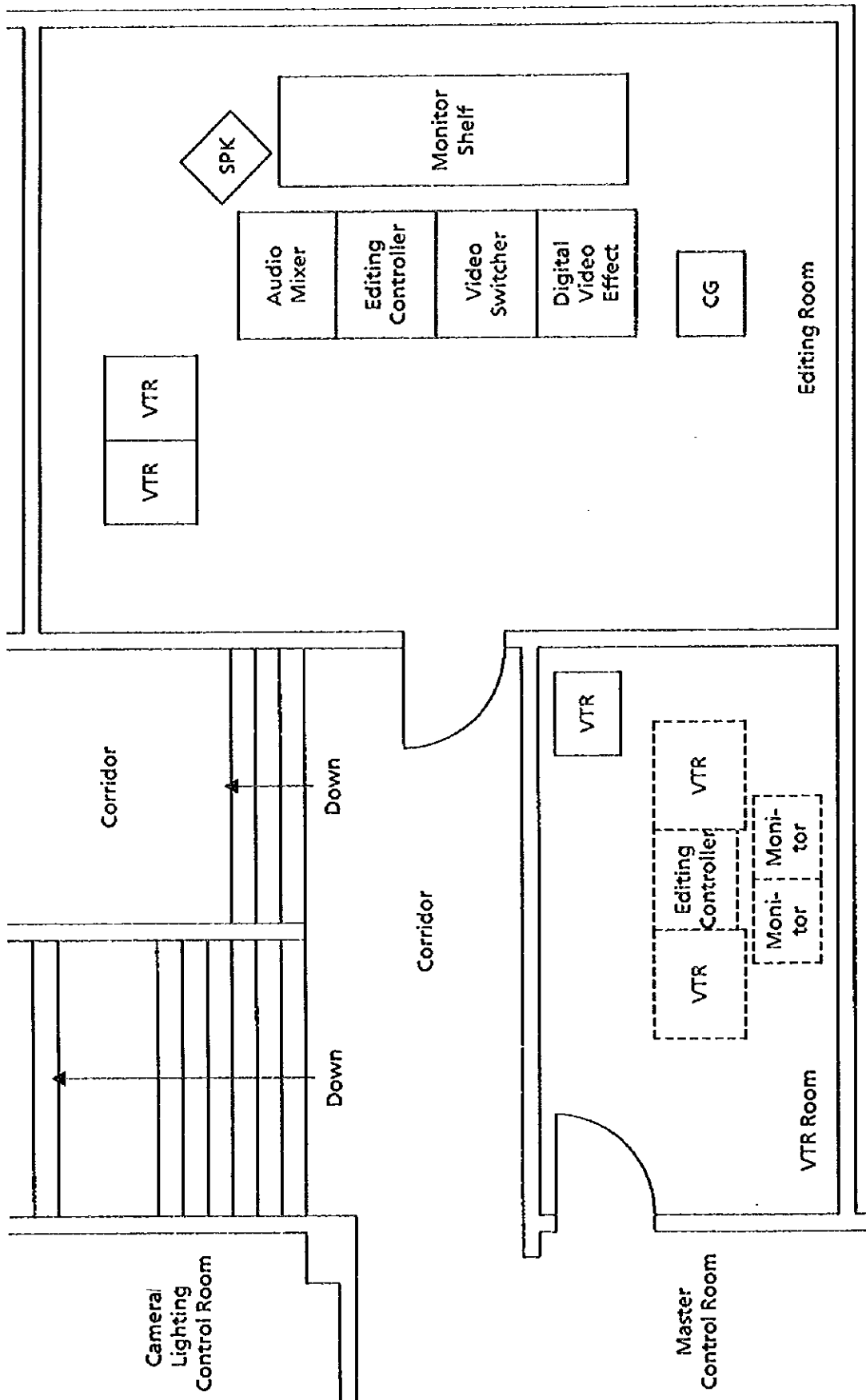


Figure 2-3-18 Equipment Layout of VTR Editing Room

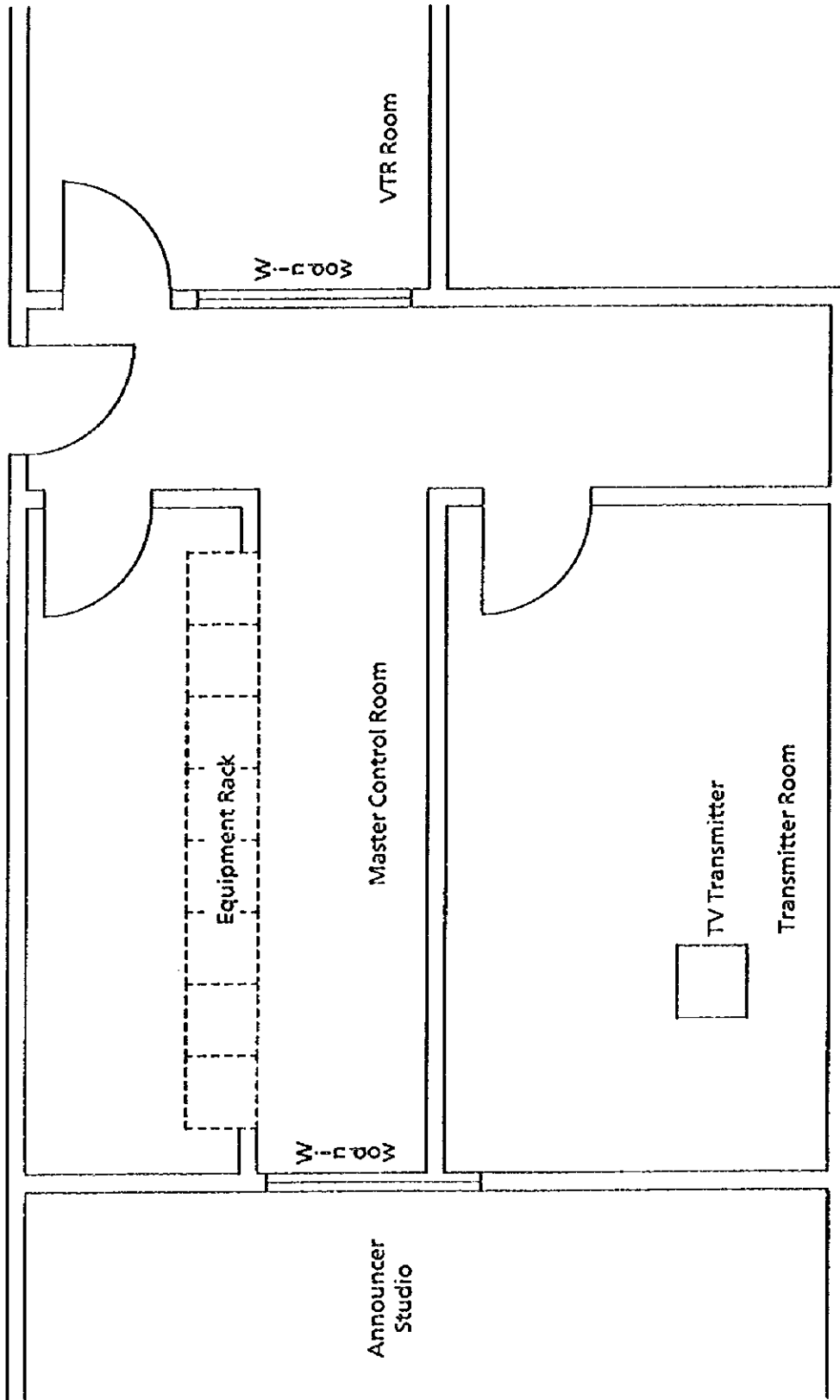
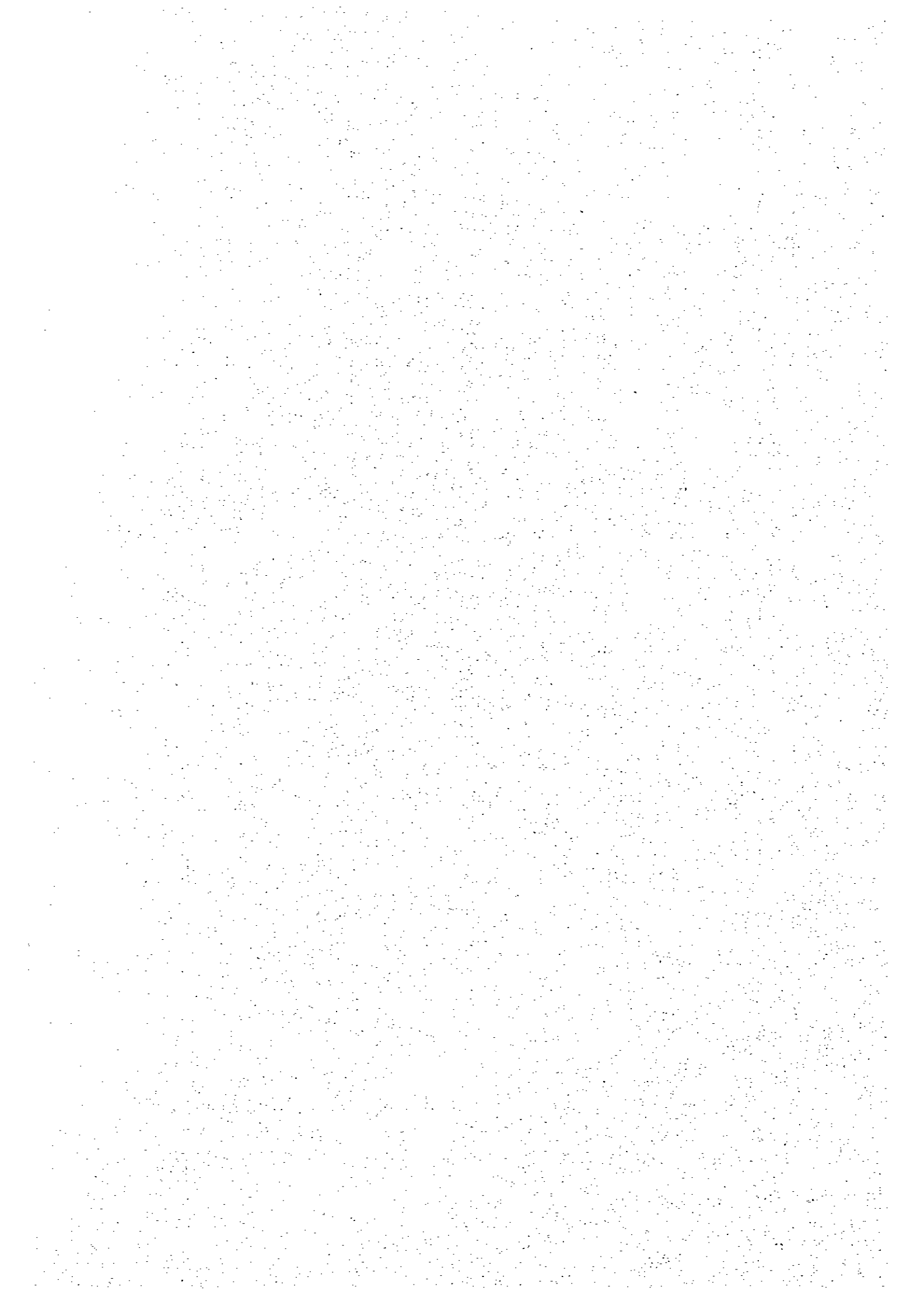


Figure 2-3-19 Equipment Layout of Master Control & Transmitter Room

Chapter 3

Implementation Plan



Chapter 3 Implementation Concept

3-1 Implementation Plan

3-1-1 Implementation Concept

(1) Project Implementation Network

① Indonesian Governmental Organizations

The relevant organizations on the Indonesian side contributing to implementation of the Project and their roles are summarized below.

③ BAPPENAS (National Development Planning Agency)

This is the decision-making body on the Indonesian side covering acceptance of grant-aid projects.

⑥ DEPPEN (Department of Information)

This is the highest organization of the TVTC.

⑦ RTF (Directorate General of Radio, Television and Film)

One of the organizations in DEPPEN and this is the Project's main executive organization.

⑧ TVTC (Television Training Center)

This is the objective organization of the Project. It serves as the liaison office for Japanese consultant and contractors.

② Project Implementation Procedure

This Project will begin with Exchange of Notes between the Indonesian Government and the Japanese Government. Upon finalization of the Exchange of Notes (E/N), RTF, the Project's main executive agency, will enter into contract with consultant of Japanese nationality based on the terms of the E/N, and upon approval of the same contract by the Japanese Government, the consultant shall immediately begin implementation planning work.

Procedures for submission of tender will begin upon completion of tender documents such as equipment design drawings and specification sheets.

Tender shall be submitted by applicants of Japanese nationality according to the terms of the E/N. It can be assumed the equipment, for example studio equipment and transmission equipment, will consist of products by different makers. Tender should be submitted by general trading companies that can provide such products collectively.

Work will be covered by a contract signed between RTF and the successful tenderer.

After the contract has been signed, and after it has been verified by the Japanese Government, the work will start.

③ TVTC Implementation Network

In order to implement the Project smoothly and without delays, TVTC should appoint, as early as possible, a manager in charge of Project implementation.

This manager shall cooperate with the consultant during the conduct of work, resolve foreseeable problems before they arise and exert maximum efforts to implement work smoothly.

(2) Major points in management planning

① Dispatch of full-time manager

Since installation of equipment based on the Project takes place inside TVTC facilities already established, such installation will require meticulous expertise. Hence a site manager, to be on duty for the duration of the Project, will be dispatched from Japan.

② Dispatch of technical experts

Experts with technical knowledge covering each type of equipment will be dispatched for equipment installation work. Simple tasks that can be performed by human labor alone shall be done by people hired locally.

3-1-2 Implementation Conditions

During the course of Project-related work, including removal of old equipment and installation of new equipment, TVTC shall be responsible for conduct training activities.

3-1-3 Scope of Works

(1) Division of Responsibilities Between the two countries

When implementing this Project through a grant aid from Japan, duties to be performed by the Japanese side and by the Indonesian side shall be divided as follows.

① Scope of duties by the Japanese side

Procurement, transportation and installation at TVTC of television training equipment, including studio and transmission equipment.

② Scope of duties by the Indonesian side

Ⓐ Removal of old equipment in conjunction with the Project.

Ⓑ Acquisition of all legal permits from the Indonesian side required for Project implementation.

Ⓒ Tax exemption for all imported equipment considered necessary for work carried out by the Japanese side.

Ⓓ Payment of bank fees for issue of payment authorization sheets and for changes therein.

Ⓔ Appropriate and effective application and maintenance of all equipment supplied.

Ⓕ Implementation of all other duties of the aid-receiving country as stipulated in the E/N.

3-1-4 Consultant Supervision

(1) Basic Policy Regarding Supervision

The consultant must understand the concept of the basic design, put together a project team for the comprehensive management of the implementation of design and supervisory duties, coordinate the opinions of all parties concerned, and aim for the completion of the project. The basic policy regarding supervision is as follows:

① Careful mediation among all supervisors so that no obstructions surface in equipment installation work, and maximum effort so that all the work is completed within the scheduled time frame without delays.

② Detailed liaison and reporting among relevant agencies and supervisors from both countries and speedy, appropriate advice and guidance to implementing enterprises so that work progresses smoothly.

③ With respect to implementation methods and technologies, the ideal approach calls for technology transfer to the Indonesian side and maximum benefit from grant aid cooperation.

(2) Contents of Supervisory Duties

Supervisory duties carried out by consultant are as listed below.

① Duties covering work contracts

Preparation of design drawings and tender documents; collection and evaluation of tender and selection of enterprises; cooperation in the drafting of written work contracts; attendance to witness the formation of work contracts.

② Inspection of items submitted by contracted enterprises

Inspection and approval of design drawings, work drawings, prototypes and other items submitted by contracted enterprises and equipment manufacturers.

③ Supervision of work

Examination of work schedules and work bar charts; supervision of contracted enterprises and periodic reports of owners of the state of work progress.

④ Cooperation in payment approval procedures

In regards to payment of contracted fees during work and after completion of work, cooperation in the examination, for example, of the contents of payment requests submitted by contractors, and in payment procedures.

⑤ Attendance to witness inspection, etc.

Witness and approval of various tests and inspections carried out from the start of work until its completion. Supervision of payment procedures according to work progress. Report to parties concerned of the Government of Japan on items necessary for completion and transfer, confirmation of completion of work, and attendance to witness transfer to the owners.

(3) Supervisory Personnel Network

This Project will be carried out within the existing facilities of TVTC.

Accordingly, detailed adjustments will have to be made so as to avoid, as much as possible, any interference with the conduct of designated training schedules.

In addition, since many connections will have to be made with existing equipment, such as lighting or audio equipment, the establishment of compatibility among all these equipment will be extremely important. It is imperative, therefore, that full-time supervisory personnel be dispatched to supervise implementation of the Project, and that other personnel be dispatched for specific objectives at appropriate time periods, such as when works begins or when comprehensive examinations are conducted at the completion of work.

3-1-5 Procurement Plan

(1) Procurement of equipment

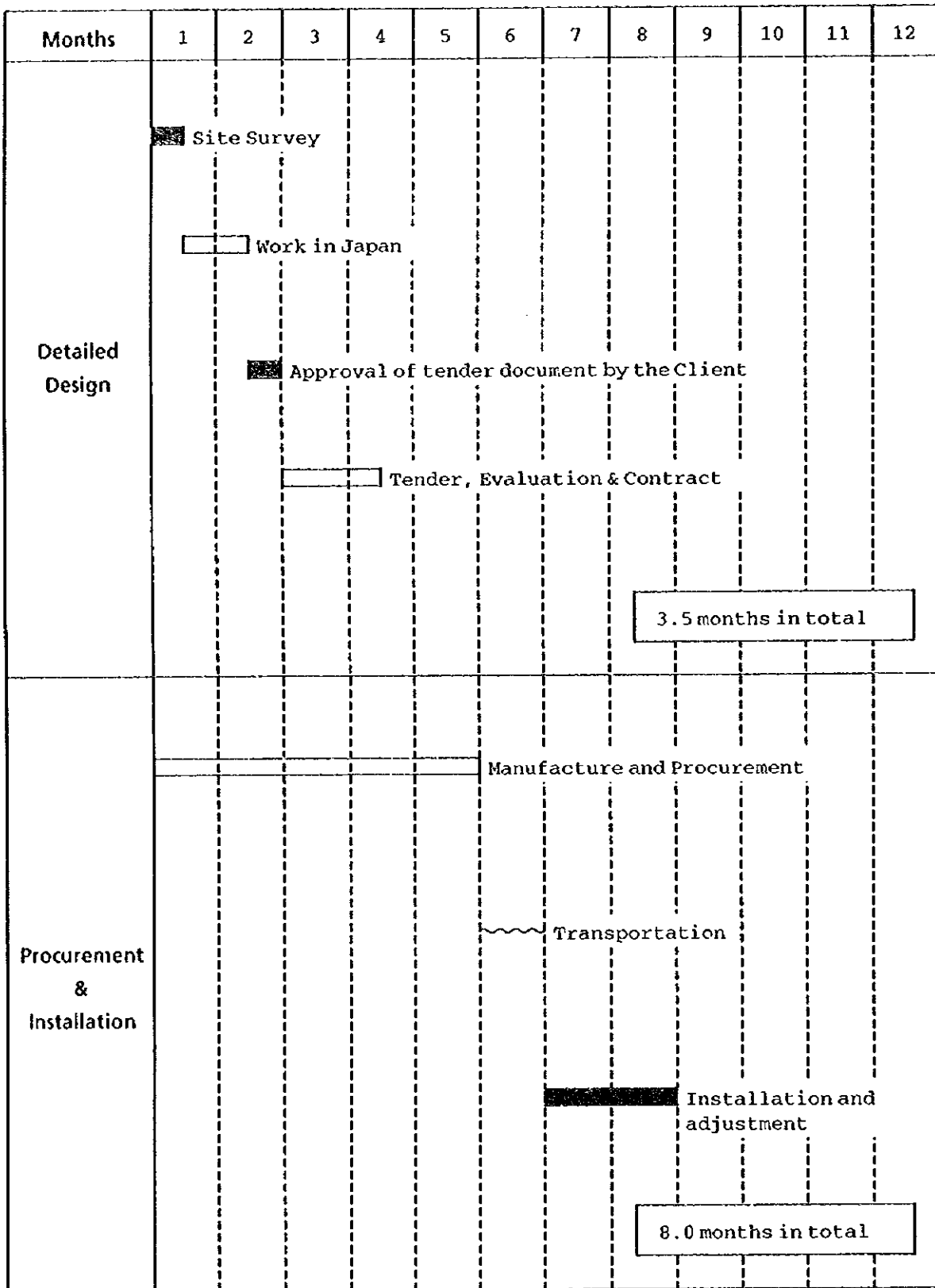
In principle, equipment provided for this Project shall be procured in Japan.

(2) Equipment transportation plan

Equipment shall be packed in containers and transported from Japan to Jakarta in regular marine cargo vessels.

Trucks shall be used to transport equipment from port to work site, and the time period allowed for transport shall be approximately 25 days.

3-1-6 Implementation Schedule



3-1-7 Obligations of Indonesia

- ① To remove the equipment and materials to be replaced under the Project
- ② To acquire all legal authorizations required for the execution of the Project in Indonesia
- ③ To exempt tariffs and taxes which may otherwise be levied on those imported equipment and materials needed for the works to be borne by the Japan side.
- ④ To bear the bank charges and commissions required to issue and revise the authorization of payment.
- ⑤ To properly operate and maintain the equipment and materials procured under the Grant.
- ⑥ To carry out all other works specified as the duties of the recipient within the E/N.

3-2 Operation and Maintenance Plan

TVTC obtains its budget from three sources; DEPPEN, BAPPENAS, and TVRI.

Totals are shown the table below.

(Unit: 1,000 Rp)

Item	1992	1993	1994	1995	1996
Training costs	980,526	1,256,240	1,567,592	2,710,857	2,012,784
Operational costs	55,500	65,700	69,300	99,100	92,335
Costs of equipment purchase and maintenance	24,000	41,100	77,700	120,950	395,700
Salaries	206,719	202,110	246,286	350,086	408,186
Total	1,266,745	1,565,150	1,960,878	3,280,993	2,909,005

① Training Costs

The provision of equipment based on the Project can be expected to enhance and bolster the contents of training, in addition the existing facilities and classrooms shall be used as before. This means the number of instructors, staff of TVTC and trainees will be unable to increase drastically. Consequently training cost shall not be increased and adequately covered with the current budget.

② Operation Costs

TVTC's daily operation costs of electricity, water and telephone are born by TVRI which is on the same premises as TVTC.

Since electric power consumption of new studio lighting equipment for the Project, though large, is almost the same as existing equipment, there should be no major change in operation costs.

③ Cost of equipment maintenance

After superannuated equipment are replaced with new one under the Project, equipment trouble in the TVTC is surely decreased as a whole.

Furthermore, some spare parts are included for the Project, supply parts and maintenance costs are certainly decreased as well.

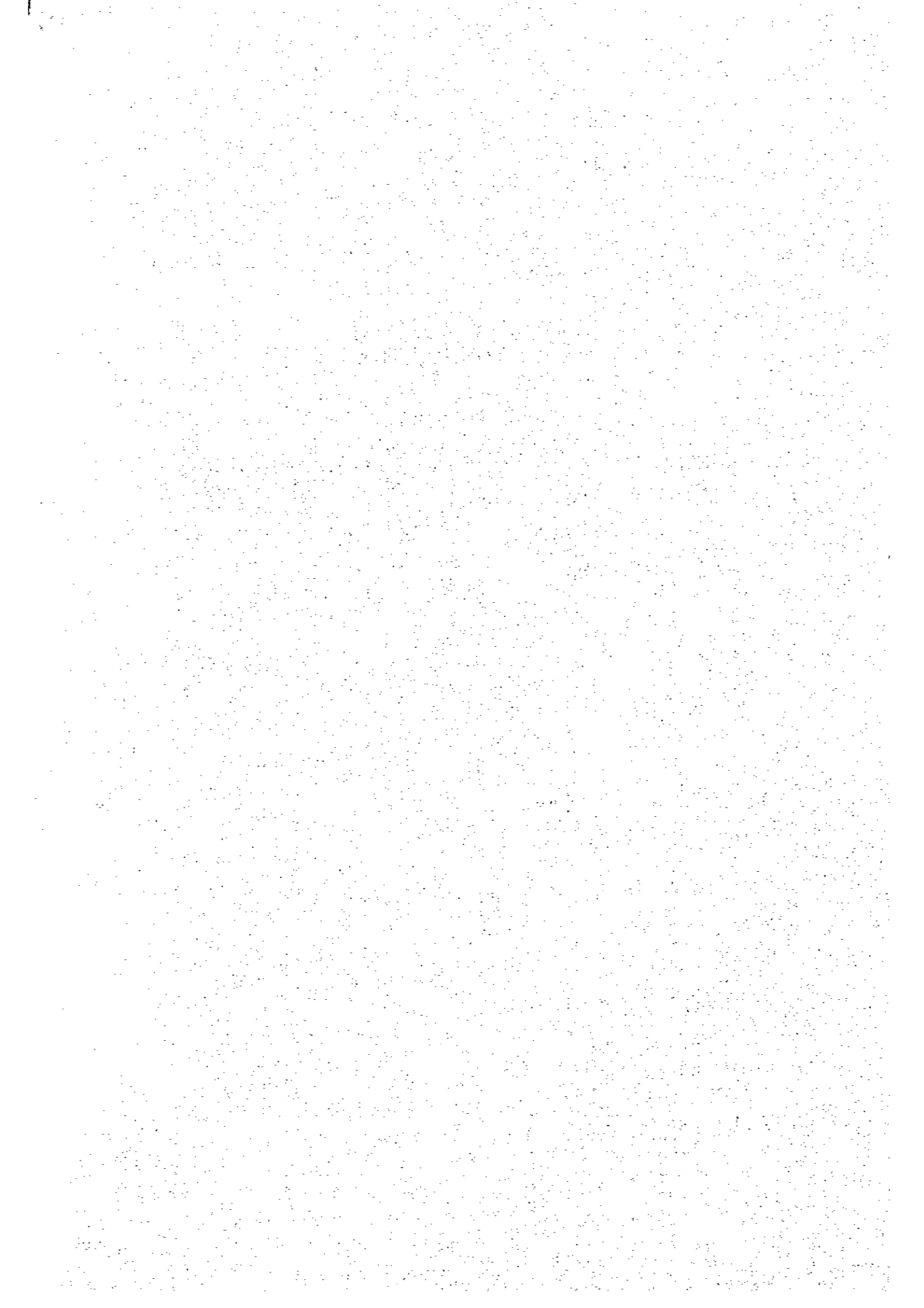
④ Salaries

After completion of the Project, it is assumed that the number of

TVTC instructors and staff will not change. Accordingly there will be little change in total salaries.

Chapter 4

Project Evaluation and Recommendation



Chapter 4 Project Evaluation and Recommendation

4-1 Project Effect

(1) Validation of Appropriateness

9,600 trainees have studied at TVTC in the 26 years of its existence up to 1996, which is more than the current TVRI work force of 7,200. In the last five years, an average of 262 new recruits have entered TVRI every year, whereas the average number of retirees has been 26 staff per year. TVTC provides training for between 600 and 700 staff every year. This includes orientation training for the said new recruits, plus beginner's level basic training and intermediate level specialist training for staff following assignment to each broadcasting station. As may be gathered from this data, the workplace-oriented training provided by TVTC to TVRI staff plays a significant role in the implementation of broadcasts by TVRI.

Moreover, in the past, TVTC contributed to the smooth introduction of new technologies into broadcasting stations by adopting new equipment ahead of the stations and providing advance training to station employees. However even though TVTC has been in existence for 27 years now, its major equipment has only undergone partial renewal once in 1978 (following the changeover to color television broadcasting). During that time, half of the center's equipment has become inoperable due to age and the remainder is not compatible with new equipment, and instruments being introduced into rapidly modernizing broadcasting stations. As a result of this, TVTC has become unable to fully achieve the original training goals.

The renewal and enhancement of training equipment under the Project will raise the effectiveness and efficiency of training at TVTC, the current state of which is as described above. In doing so, it will respond to the issues that have long been facing TVTC in terms of human resource development through the vitalization and modernization of training activities.

Moreover, the provision of new equipment and materials, including digital items, responds to TVRI needs for technical staff development as it accelerates the introduction of new technologies to keep up with the current trend of modernization at television broadcasting stations. This modernization can be seen in a number of areas, for example, the

following two projects currently being promoted under the Sixth National Development 5 Year Plan:

- ① The introduction of digital editing equipment to three regional broadcasting stations currently being constructed through aid from France
- ② The introduction of digital technology through the yen loan project for the rehabilitation of four studios at the Jakarta station.

As can be inferred from the emergence of private television broadcasters boasting full digital systems, digitalization is spreading rapidly in Indonesia, and the decision to include digital equipment within the Project follows that trend.

The types, grades and numbers of training equipment and materials are intended to improve the currently stagnating training conditions at TVTC. This will allow the training that utilizes state-of-the-art equipment to be commenced and in addition, courses teaching new technologies can also be established. Thus, the appropriateness of project implementation is extremely high.

(2) Project Effect

1) Contribution to the development of staff working at the 13 television broadcasting stations throughout the country

The current work force of TVRI numbers approximately 7,200. The rapid hiring of staff in a short period following the sudden development of the television broadcasting network, added to the fact that many staff were hired as a result of the government's employment stimulation policy.

Vitalizing the training activities of TVTC will enable these staff members to receive thorough and detailed training, and will thus contribute to raising their specialist skills and job achievement.

2) Removal of limitations on training and enhancement of training contents

It will become possible to resume practical training, which, due to the deterioration of training equipment, has had to be replaced with visits to local stations or covered by classroom lessons. Among training courses that can be resumed immediately, the following two can be considered:

- ① Beginner's level and intermediate level practical training in transmitters
1 course each (40 trainees in all)
- ② Beginner's level and intermediate level practical exercises in maintaining transmitters and using measuring instruments
1 course each (40 trainees in all)

3) Establishment of New Training Courses

Using the newly provided equipment, it will become possible to establish a beginner's level course to impart essential basic knowledge to broadcasting engineers by means of experimental and intermediate level program production practical training courses designed to teach post production techniques (i.e. the production of programs by means of VTR editing and special effects), which have become the mainstream of program production in recent years.

- ① Basic training using electronic circuit and digital logic circuit learning equipment (10 sets) 1 course (20 trainees)
- ② Intermediate level practical training using A-B role video editing equipment (1 set) 2 courses (24 trainees)
- ③ Practical training in post production (program production based around video editing) 1 course (12 trainees)

4) Fulfilling the role of being a pioneer of new technologies

There is little doubt that more and more digital equipment and instruments will be introduced into TVRI broadcasting stations in the future. It is, therefore, necessary for TVTC to commence training in digital technology in order to keep up with technical developments.

Because it is planned to introduce state-of-the-art digital equipment by the end of the Project, it will become possible for TVTC to open new courses designed to teach digital technology.

Through providing training that at the very least enables core

engineers to read digital equipment user manuals and understand digital circuit drawings, it will become possible for TVRI broadcasting stations to prepare for the trouble-free introduction of digital technology in the near future.

In the final analysis, implementation of the Project will raise the quality of programs broadcast by TVRI stations (especially regional broadcasting stations) and, through raising staff technical levels, will enable the improved operation and maintenance of broadcasting equipment and facilities and pave the way for the smooth introduction of new technologies into stations in the future.

As a result, it will become easier to nationally broadcast children's education, family planning and Indonesian language teaching programs, plus programs that have been produced by regional stations, and this will contribute to achieving the priority government goals of raising the quality of citizen's lifestyles, rectifying regional disparities and promoting mutual understanding between races.

4-2 Recommendation

(1) Recommendation Concerning Training

1) Antenna and Radio Wave Propagation Training

The current training curriculum of TVTC does not include any courses on antennas or radio wave propagation. However, because these areas are important for understanding transmission technology, it is necessary that TVTC introduce and teach basic courses on them. By learning the theory and methods of measuring antennas and radio wave propagation, engineers at each broadcasting station will become able to gauge station broadcasting conditions and maintain broadcasts in their best possible state.

2) Reception Technology Training

The idea of teaching broadcasting technology without reception technology is unthinkable. Not only are receivers (television sets) important as the final means of delivering broadcast programs to viewers, but it is also important to have an understanding of reception to enable program makers (the broadcasting side) to do the following and thus systematically evaluate and improve broadcasting as a whole:

- ① Gauge reception conditions in service areas and for viewers,
- ② Correctly evaluate picture and sound quality on the broadcasting side,
- ③ Provide programs of the quality intended by the broadcasting side,
- ④ Deal properly with viewer concerns and queries.

In consideration of the above, it is desirable that TVTC introduce new courses that teach basic reception technology.

(2) Recommended Maintenance

1) Securing links with manufacturers to prepare for equipment troubles

Regarding parts that are heavily used, printed circuit boards and units that have relatively high breakdown rates, spare parts shall be provided for those items which can be replaced by TVTC, however, in readiness for breakdown cases which cannot be solved by simply

replacing spare parts alone, it is vitally important to secure routes of communication with equipment manufacturers and dealers (for each model) to ensure that repairs can be made and system functions restored as quickly as possible.

2) Links with Maintenance Centers

Maintenance centers have been established in Jakarta, Medan and Ujung Pandang with the aim of carrying out the centralized procurement of parts for each of the broadcasting stations of TVRI and RRI.

The maintenance centers have yet to commence operations, however, when they do start officially operating, it is desirable that the procurement of TVTC spare parts also be handled by them. Doing this will have the following advantages:

- ① Centralized parts procurement will be possible
- ② Because parts common to TVTC and broadcasting stations can be pooled, emergency equipment breakdowns can be responded to more quickly
- ③ Parts storage and management can be carried out in detail and by specialist staff
- ④ Maintenance work at TVTC will become more efficient and smoother

Having said that, it is still important for TVTC to maintain communications with makers in readiness for breakdowns.

3) Attention to the Environment of Equipment Use

Almost all digital equipment is composed of LSI and other forms of integrated circuit chips, but these chips have one drawback in that they are vulnerable to heat. Because the climate in Indonesia is characterized by high temperatures and high humidity, it is necessary to pay attention to the environment in which the equipment is used. It is especially necessary to make sure that air conditioning, etc. is sufficient to counter high temperatures. Furthermore, rooms containing VTR, editing equipment and other instruments that do not respond well to dust should be made off limits bounds to people wearing outdoor shoes.

4) Life of broadcasting materials

The life (number of years) of broadcasting materials varies with

their type and is evaluated in various ways according to countries and users; so it is difficult to give a general definition on it.

The life of broadcasting materials are divided into the following two categories.

① Mechanical life

It is given as a duration of time beyond which the machine cannot satisfy the criteria of maintenance, and defined differently for each of the models.

For example, the life of transmitters exceeds 15 years, but the cameras and VTRs of portable type may suffer severe wastage, and hardly be over the life of ten years.

② Short life due to being stereotyped

Most of broadcasting materials at production sites which promptly introduce technical innovations are stereotyped before arriving at their life. In such cases, the life is deemed to be reached when the model of machine in question loses its marketability in cost saving, and no longer benefits from the supply of parts, and is unable to receive any maintenance. Stereotyping of machines varies with the models, but machines and equipment for production of programs have a five to ten years' cycle of stereotyping.

5) Parts Procurement

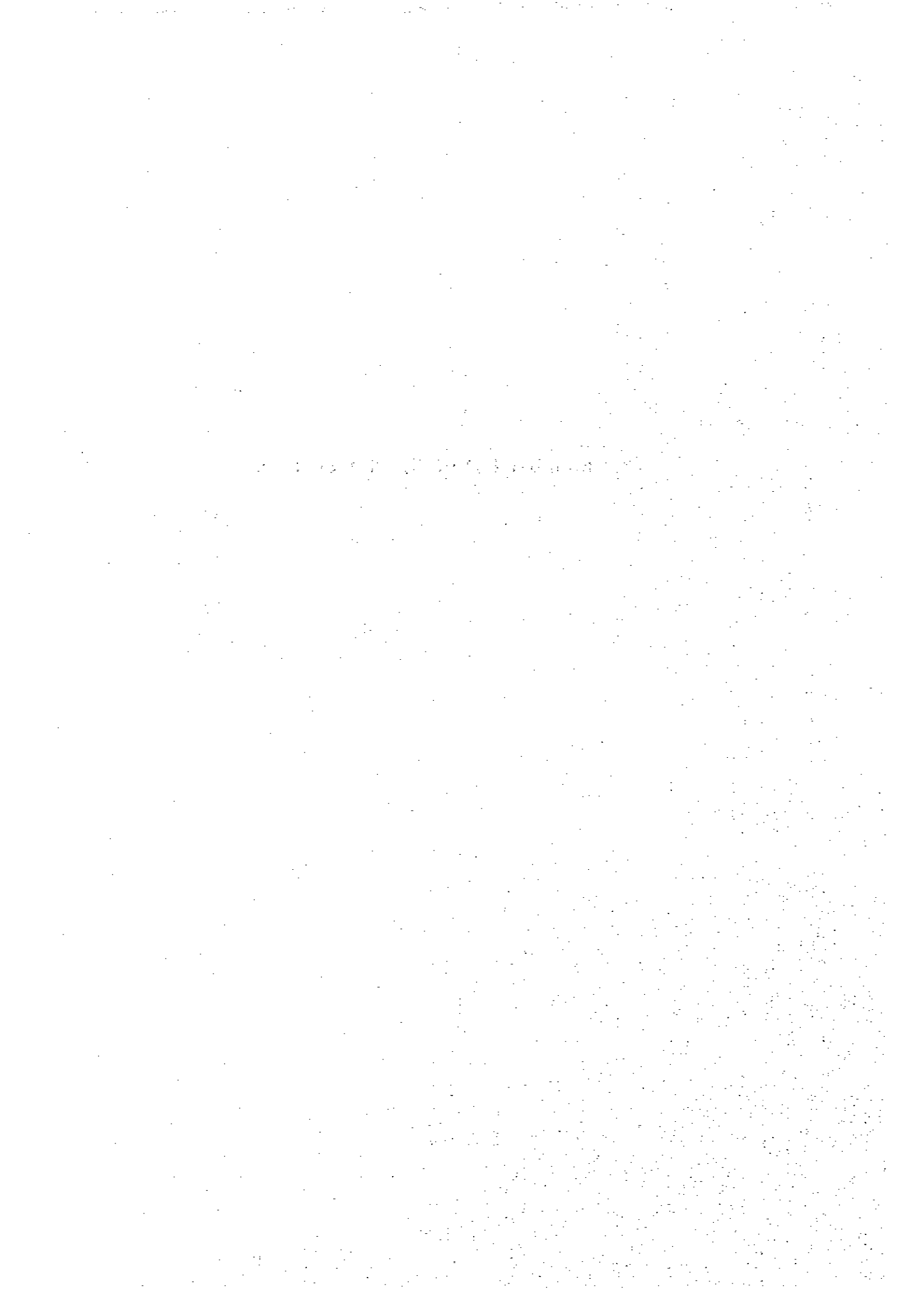
In Indonesia, it is obligatory for parts worth more than 5,000,000 rupiah to be procured via domestic small or medium-scale enterprises. However, because such companies generally possess few staff with specialist know-how and are built on shaky financial bases, such a method of procurement can sometimes invite trouble. Furthermore, procuring through small enterprises not only complicates procurement routes, but can also lead to price increases and delivery delays. In extreme cases, the delayed delivery of parts can mean that equipment breakdowns are not repaired, consequently resulting in the long-term suspension of services. In short, this system of procurement offers absolutely no advantages to the users.

In the future, in order to ensure the trouble-free operation of equipment and instruments, the procurement system should be reformed to one where parts can be procured directly from manufacturers or their agents.

APPENDICES

- 1. Member List of the Survey Team**
- 2. Survey Schedule**
- 3. List of Parties Concerned in the Republic of Indonesia**
- 4. Minutes of Discussions**
- 5. References**

1. Member List of the Survey Team



1. Member List of the Survey Team

(1) Basic Design Study

<u>Name</u>	<u>Assignment</u>	<u>Present Post</u>
Kenji SUZUKI	Team Leader	Assistant Director Grant Aid Division, Economic Cooperation Bureau, Ministry of Foreign Affairs
Toshio TAKAHASHI	Technical Adviser	Chief, Asia-Pacific Section, International Cooperation Division, International Affairs Department, Ministry of Posts and Telecommunications
Tetsuo SHIBATA	Chief of Consultants	Chief Engineer International Dept., NHK ITEC
Noboru SHIMOJI	Training Equipment	Chief Engineer International Dept., NHK ITEC
Susumu TOYODA	Estimation	Chief Engineer International Dept., NHK ITEC

(2) Explanation of Draft Report

<u>Name</u>	<u>Assignment</u>	<u>Present Post</u>
Masao YOSHIDA	Team Leader	Development Specialist JICA
Hiroshi IZAKI	Coordinator	First Project Management Division, Grant Aid Project Management Department, JICA
Tetsuo SHIBATA	Chief of Consultants	Chief Engineer International Dept., NHK ITEC
Noboru SHIMOJI	Training Equipment	Chief Engineer International Dept., NHK ITEC
Susumu TOYODA	Estimation	Chief Engineer International Dept., NHK ITEC

2. Survey Schedule



2. Survey Schedule

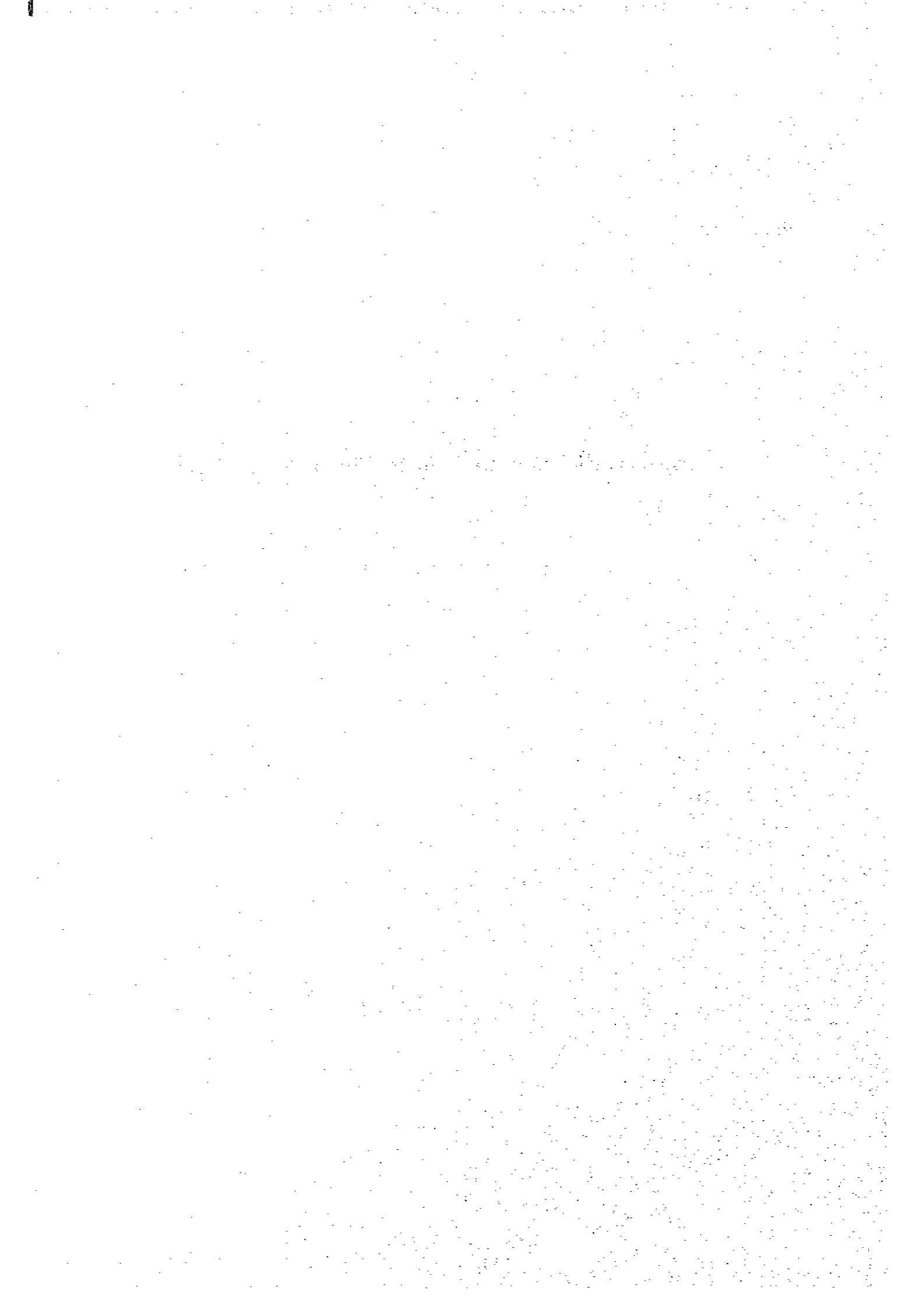
(1) Basic Design Study

	Date	Activities				
		Official Members		Consultant Members		
		Suzuki	Takahashi	Shibata	Shimoji	Toyoda
1	Nov. 19 (Tue)	Narita → Jakarta (JL725)				
2	20 (Wed)	Coutesy call to Embassy of Japan, JICA Jakarta Office, Director General of RTF, TVTC Explanation of Grant Aid System at TVTC				
		Courtesy call to BAPPENAS		Explanation of Inception Report at TVTC		
3	21 (Thu)	Survey and Discussion with TVTC				
4	22 (Fri)	Discussion with TVTC about requested equipment				
5	23 (Sat)	Discussion with Mr. Gamari, secretary, RTF and Mr. Siswantonono, Head of TVTC about the draft of Minutes of Discussions at DEPPEN				
6	24 (Sun)	Meeting of mission members				
7	25 (Mon)	Signing of Minutes of Discussions at TVRI Jakarta → Yogyakarta				
8	26 (Tue)	Jakarta → Narita (JL726)		Survey of MMTC and TVRI Yogyakarta station		
9	27 (Wed)			Survey of MMTC's curricula etc. Yogyakarta → Jakarta		
10	28 (Thu)			Detail survey of TVTC's equipment Survey of parts supply system at Maintenance Center in Jakarta		
11	29 (Fri)			Observation of TVRI Jakarta station Hearing on the questionnaire at TVTC		
12	30 (Sat)	Collecting and analyzing data				
13	Dec. 1 (Sun)	Inner meeting				
14	2 (Mon)	Hearing on the questionnaire at TVTC Observation of commercial station, INDOSTAR				
15	3 (Tue)	Confirmation of contents of answer to questionnaire Collection of complement data				
16	4 (Wed)	Report on the result to JICA Jakarta office and Embassy of Japan				
17	5 (Thu)	Jakarta → Narita (JL726)				

(2) Explanation of Draft Basic Design

	Date	Activities				
		Official Members		Consultant Members		
		Yoshida	Izaki	Shibata	Shimoji	Toyoda
1	Jan. 26 (Sun)	Narita → Jakarta (JL725)				
2	27 (Mon)	Courtesy call to BAPPENAS				
		Courtesy call to JICA Jakarta office, Embassy of Japan, RTF DEPPEN, TVRI, TVTC				
3	28 (Tue)	Explanation and discussion about Draft Basic Design at TVTC				
4	29 (Wed)	Confirmation of Equipment Plan and Discussion about spare parts concerning the Project with TVTC's staff				
		Discussion on the draft of Minutes of Discussions with Secretary of RTF at DEPPEN				
5	30 (Thu)	Signing of Minutes of Discussions at DEPPEN				
		Survey TVTC and collecting data				
6	31 (Fri)	Report on the result to JICA Jakarta office				
7	Feb. 1 (Sat)	Jakarta (CX718) → Hong Kong (CX701) → Colombo (Joining in another JICA mission)	(Joining in another JICA mission)	Jakarta → Narita (JL726)		

3. List of Parties Concerned in the Republic of Indonesia



3. List of Parties Concerned in the Republic of Indonesia

BAPPENAS

Mrs. ENNI ROCHMAENI RACHMAT, SH	Head of Bureau for Law, Social Communication and Information
Mr. SANDJAJAS SARWOHADI	Bureau for Law, Social Communication and Information

DEPPEN

Mr. Ir. DEWABRATA	Director General, Directorate General of Radio, TV and Film
Mr. Drs. H.M. GAMARI SUTRISNO MPS	Secretary of Directorate General of Radio, TV and Film
Mr. HERU	Secretary, GAMARI's Staff
Mr. SUNARYO, BA.	Head of Programing and Report Section, RTF
Mr. Ir. B.A. SISWANTONO	Head of Baghian Kepegawaian, RTF
Mr. Masatomo MURAKAMI	JICA Expert (Ministry of Posts and Telecommunications)

TVRI

Mr. Drs. A. AZISHUSAIN	Director of TVRI
Mr. Drs. DARSO	Studio Engineering Manager, Sub Direktorat Teknik
Mr. Itsuo SATSUMA	JICA Expert

TVTC

Mr. Drs. SOEPARTO, MBA	Head of TVTC
Mr. R. SUWANDI	Head of Administration & General Affair
Mr. R.S. YUWONO, BA	Head Instructor
Mr. Drs. HANOCH TAHAPARY	Instructor
Mr. Drs. USRINUSMAN	Instructor
Mr. BAMBANG HARYOTO	Instructor
Mr. Drs. SEPTANTO	Instructor
Mr. Ir. AGUS SUDJONO	Instructor
Mr. PURWANTO, SE	Instructor
Mr. MANAN	Instructor
Mr. ROIB FACHRUROZIE	Training Coordinator for TV Journalist

Mr. MANISTER HUTAGALONE

Studio Installation

MMTC

Mr. RACHMAD SUPEDJO, SH

Deputy Director for Administration

Mr. MAURICE SIMATUPANG, SH

Head of General affair section

Mr. Kaoru OKA

JICA Expert

TVRI Yogyakarta Station

Mr. SUNJOTO SUWARTO

Head of Yogyakarta Station

Mr. ZULKIFLI BAHAR

News Section

Mr. DJUMLIARIFIN

Transmission Section

Mr. SALIMAN

Studio Technique Section

Mr. SUDJADI

Program Planning Section

Ms. INTANI

Program Producer

PT INDOSIAR

Mr. SANTOSO TANDIO

Manager of External Affair Department

Mr. SALIM KOSASIH

Manager of Engineering Division

Mr. H.M. RAMLI PARINDURI

Production Services Division

Mr. HARRY PRAMONO

Production Services Division

Embassy of Japan

Mr. Toshihisa KUMEI

First Secretary Telecom Attaché

JICA Indonesia Office

Mr. Ryo SUWA

Resident Representative

Mr. Osamu NAKAGAKI

Deputy Resident Representative

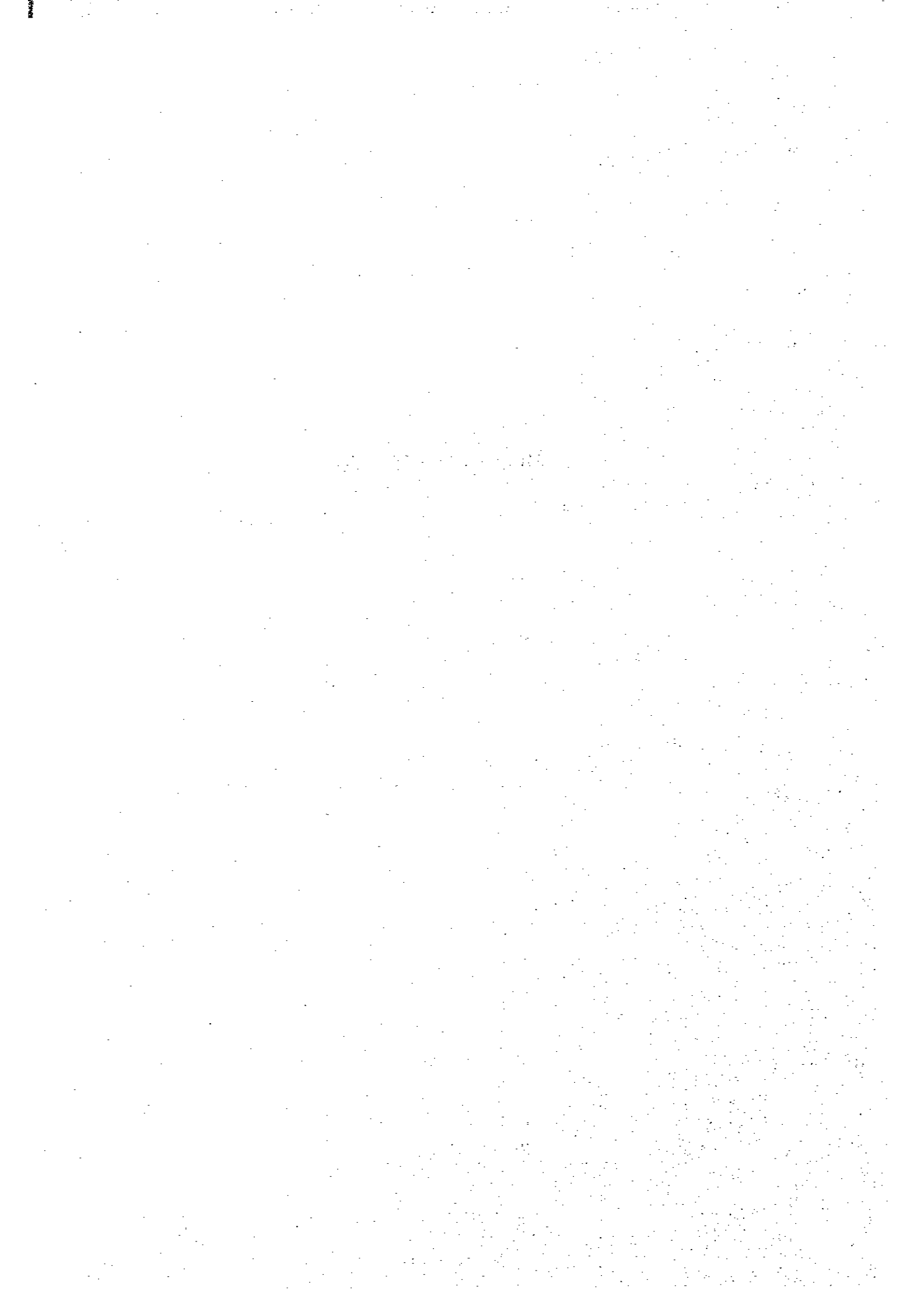
Mr. Hiroyo SASAKI

Deputy Resident Representative

Mr. Makoto OTA

Assistant Resident Representative

4. Minutes of Discussions



4. Minutes of Discussions

(1) Basic Design Study

MINUTES OF DISCUSSIONS
BASIC DESIGN STUDY ON THE PROJECT
FOR
EQUIPMENT SUPPLY TO TV TRAINING CENTER
IN
THE REPUBLIC OF INDONESIA

In response to a request from the Government of the Republic of Indonesia, the Government of Japan decided to conduct a Basic Design Study on the Project for Equipment Supply to TV Training Center (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to Indonesia a study team, which is headed by Mr. Kenji SUZUKI, Assistant Director, Grant Aid Division, Economic Cooperation Bureau, Ministry of Foreign Affairs, and is scheduled to stay in the country from 19th of November to 4th of December, 1996.

The team held a series of discussions with the relevant officials of Indonesia and conducted a field survey at the study area.

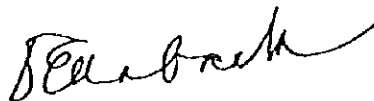
As a result of discussions and field survey, both sides have confirmed the main items described in the attached sheets.

The team will proceed to further works and prepare the Basic Design Study report.

Jakarta, November 25, 1996

鈴木研司

Mr. Kenji SUZUKI
Leader
Basic Design Study Team
JICA



Mr. Ir. DEWABRATA
Director General
Directorate General of Radio, Television
and Film,
Ministry of Information

Acknowledged:



Ny. ENNI ROCHHAENI RACHMAT SII.
Head of Bureau for Law, Social
Communication and Information,
National Development Planning Agency
(BAPPENAS)

ATTACHMENT

1. OBJECTIVE

The objective of the Project is to replace the out-dated training equipment in TVRI Training Center (TVTC), Jakarta with newer and more sophisticated equipment, thereby enhance quality of training in TVTC.

2. PROJECT SITE

The Project site is TVTC located in Jakarta

3. RESPONSIBLE MINISTRY AND EXECUTING AGENCY

Responsible Ministry : Ministry of Information
Executing Agency : Directorate General of Radio, Television and Film, Ministry of Information

4. ITEMS REQUESTED BY THE GOVERNMENT OF INDONESIA

As a result of the series of discussions, the items listed in ANNEX-I were finally requested by the Indonesian side.
Both side confirmed the priority of items.
However, the items covered under the Project will be subject to further studies.

5. JAPAN'S GRANT AID SYSTEM

The Government of Indonesia have understood the system of Japan's Grant Aid explained in ANNEX-II.

6. NECESSARY MEASURES TO BE TAKEN BY THE INDONESIAN SIDE

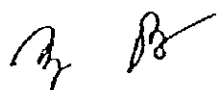
The Government of Indonesia will take necessary measures as described in ANNEX-III for smooth implementation of the Project on condition that the Grant Aid by the Government of Japan is extended to the Project.

7. THE SCHEDULE OF THE STUDY

- (1) The consultants will proceed to further studies in Indonesia until December 4, 1996.
- (2) Based on the results, JICA will prepare the Draft Basic Design Report in English and dispatch a team in the middle of January 1997 in order to explain and confirm the contents.
- (3) In case that the contents of the report is accepted in principle by the Government of Indonesia, JICA will complete the Basic Design Report and forward it to the Indonesian side by the end of March 1997.

8. OTHER RELEVANT ISSUES

- (1) The Government of Indonesia shall provide all necessary information and data in case that the Basic Design Team request.
- (2) The Indonesian side will take all possible measures to secure the safety of the team during the field survey.



ITEMS REQUESTED BY THE GOVERNMENT OF INDONESIA

NO.	EQUIPMENT	QUANTITY	PRIORITY
<u>I STUDIO LIGHTING SYSTEM</u>			
1	Lighting control system by computer for 100 lamps	1 set	B
2	Dimmer bank 100 lamp	1 set	B
3	Spot light	30 set	C
4	Scope light	20 set	C
5	Background/cyclorama light	20 set	C
<u>II STUDIO CAMERA SYSTEM</u>			
1	Digital studio camera + CCU	3 set	A
2	Studio pedestal	1 set	A
3	Arm crane	1 set	B
4	Monitor 8/W 12"	3 set	A
5	Waveform monitor	3 set	A
6	Studio monitor color 29"	2 set	A
7	Tripot + Dolly	2 set	A
<u>III VIDEO EQUIPMENT SYSTEM</u>			
1	Digital production switcher	1 set	A
2	Preview monitor B/W 14"	8 set	A
3	Video monitor color (program mon) 20"	8 set	A
4	Digital sync generator include change over SW	2 set	A
5	Digital video routing switcher (V&A)	2 set	A
6	Digital video distributor (10 o/p)	1 set	A
7	Waveform monitor + vector scope	1 set	A
8	Digital video interface unit	2 set	A
9	A/D interface	3 set	A
10	Video patch panel	4 set	A
11	Production switcher console	1 set	C
<u>IV AUDIO EQUIPMENT SYSTEM</u>			
1	Audio tape recorder (digital) 1/4 inch	2 set	A
2	Digital audio tape	1 set	A
3	Compact disk player	2 set	A
4	1 inch audio tape recoder	1 set	C
5	A/D and D/A interface	2 set	A
6	Digital audio distributor	2 set	A
7	Gun microphone	2 set	C
8	Wireless microphone	2 set	C

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NO.	EQUIPMENT	QUANTITY	PRIORITY
9	Audio monitoring and speaker	4 set	A
10	Intercom system	1 set	A
11	Dynamic noise limiter	1 set	A
12	Boom stand	2 set	C
13	Audio patch panel	4 set	A
<u>V EDITING SYSTEM</u>			
A. Simple editing			
1	Digital betacam recorder	1 set	C
B. A/B roll editing			
1	Digital betacam player	2 set	A
2	Digital betacam recorder	1 set	A
3	Editing control unit	1 set	A
4	Video switcher	1 set	A
5	Audio mixer	1 set	A
6	Digital multi effect	1 set	A
7	Character generator	1 set	A
8	Video monitor	5 set	A
9	Waveform monitor & vectorscope	1 set	A
10	Audio monitor	1 set	A
11	Digital audio tape recorder	1 set	A
12	Audio cassette player	1 set	A
<u>VI AUDIO/VIDEO MEASUREMENT EQUIPMENT</u>			
1	Audio measurement sets	1 set	A
2	Video measurement sets	1 set	A

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NO.	EQUIPMENT	QUANTITY	PRIORITY
<u>VII TRANSMITTER EQUIPMENT FOR TRAINING</u>			
1	Stereo T.V. transmitter	1 set	A
2	T.V. demodulator	1 set	A
3	Audio analyzer	1 set	A
4	Modulation analyzer	1 set	A
<u>VIII EQUIPMENT FOR ELECTRONIC LABORATORIUM</u>			
1	Digital multimeter	10 set	A
2	Digital experiment kit	10 set	A
3	Digital display oscilloscope 100 MHz	10 set	A
4	Multifunction generator	10 set	A
<u>IX E.N.G.</u>			
1	Digital camera E.N.G	1 set	C
2	Hand lamp	1 set	C

Note A : First priority (strongly requested)
 B : Second priority (requested)
 C : Third priority (requested, if possible)

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ANNEX-II Japan's Grant Aid

1 Japan's Grant Aid System

(1) Grant Aid Procedures

- 1) Japan's Grant Aid Programme is executed through the following procedures.

Application (request made by a recipient country)

Study (Basic Design Study conducted by JICA)

Appraisal & Approval (Appraisal by the Government of Japan and Approval by Cabinet)

Determination of Implementation (The Notes exchanged between the Government of Japan and the recipient country)

- 2) Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Grant Aid. If the request is deemed appropriate, the Government of Japan will assign JICA (Japan International Cooperation Agency) to conduct a study on the request.

Secondly, JICA conducts the study (Basic Design Study), using (a) Japanese consulting firms(s).

Thirdly, the Government of Japan appraises the Project to see whether or not it is suitable for Japan's Grant Aid Programme, based on the Basic Design Study report prepared by JICA, and the results are then submitted to the Cabinet for approval.

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Fourthly, the Project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Government of Japan and the recipient country.

Finally, for the implementation of the Project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

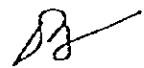
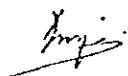
(2) Basic Design Study

1) Contents of the Study

The aim of the Basic Design Study (hereafter referred to as "the Study"), conducted by JICA on a project requested (hereafter referred to as "the Project") is to provide a basic document necessary for the appraisal of the Project by the Government of Japan. The contents of the Study are as follows:

- a) Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation
- b) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economic point of view
- c) Confirmation of items agreed on by both parties concerning the basic concept of the Project
- d) Preparation of a basic design of the Project
- e) Estimation of costs of the Project

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the Project is confirmed considering the guidelines of Japan's Grant Aid Scheme.



The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

2) Selection of Consultants

For smooth implementation of the Study, JICA uses (a) registered consultant firm(s). JICA select (a) firms(s) based on proposals submitted by interested firms. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference set by JICA.

It is important that the recipient country should make a contract promptly with the same consulting firm(s) used for the Basic Design Study which is(are) recommended by JICA, in order to maintain technical consistency and also avoid the undue delay in implementation of the project under the single fiscal year system of Japan's Grant Aid.

(3) Japan's Grant Aid Scheme

1) What is Grant Aid?

The Grant Aid Programme provides a recipient country with non-reimbursable funds to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. Grant Aid is not supplied through the donation of materials as such.

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2) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

3) "The period of the Grant Aid" means the one fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedures such as exchanging of the Notes, concluding contracts with (a) consultant firm(s) and (a) contractor(s) and final payment to them must be completed.

However in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

4) Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country.

However the prime contractors, namely, consulting, constructing and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

5) Necessity of "Verification"

The Government of recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability to Japanese taxpayers.

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6) Undertakings required of the Government of the Recipient Country

In the implementation of the Grant Aid project, the recipient country is required to undertake such necessary measures as the following:

- a) To secure land necessary for the site(s) of the Project and to clear, level and reclaim the land prior to commencement of the construction.
- b) To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the site(s).
- c) To secure buildings prior to the procurement in case the installation of the equipment.
- d) to ensure prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid.
- e) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts.
- f) To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

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g) "Proper Use"

The recipient country is required to maintain and use the facilities constructed and equipment purchased under the Grant Aid properly and effectively, and to assign staff necessary for this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.

h) "Re-export"

The products purchased under the Grant Aid should not be re-exported from the recipient country.

i) Banking Arrangements (B/A)

a. The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in an authorized foreign exchange bank of Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.

b. The payments will be made when payment requests are presented by the Bank to the Government of Japan under an authorization to pay issued by the Government of the recipient country or its designated authority.

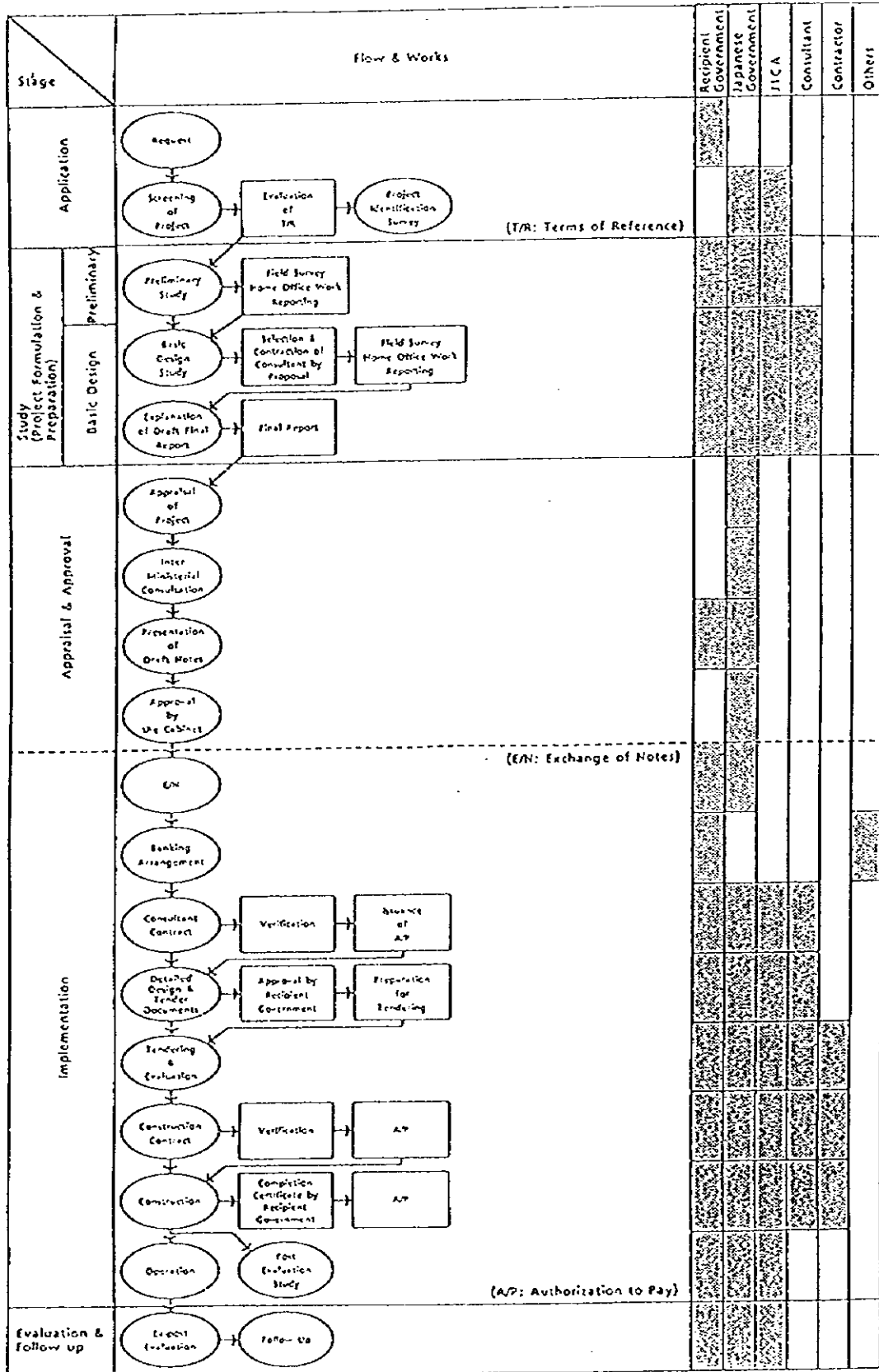
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2 Grant Aid Procedures

Flow Chart of Japan's Grant Aid Procedures



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Major Undertakings to be taken by Each Government

No.	Items	To be covered by Grant Aid	To be covered by Recipient Side
1.	To secure land		●
2.	To clear, level and reclaim the site when needed		●
3.	To construct gates and fences in and around the site		●
4.	To construct the parking lot	●	
5.	To construct roads		
	1) Within the site	●	
	2) Outside the site		●
6.	To construct the buildings	●	
7.	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
	1) Electricity		
	a. The distributing line to the site		●
	b. The drop wiring and internal wiring within the site	●	
	c. The main circuit breaker and transformer	●	
	2) Water Supply		
	a. The city water distribution main to the site		●
	b. The supply system within the site (receiving and elevated tanks)	●	
	3) Drainage		
	a. The city drainage main (for storm, sewer and others) to the site		●
	b. The drainage system (for toilet sewer, ordinary waste, storm drainage and others) within the site	●	
	4) Gas Supply		
	a. The city gas main to the site		●
	b. The gas supply system within the site	●	
	5) Telephone System		
	a. The telephone trunk line to the main distribution frame/panel (MOF) of the building		●
	b. The MOF and the extension after the frame/panel	●	
	6) Furniture and Equipment		
	a. General furniture	●	●
	b. Project equipment		
8.	To bear the following commissions to the Japanese foreign exchange bank for the banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
9.	To ensure unloading and customs clearance at port of disembarkation in recipient country		
	1) Marine (Air) transportation of the products from Japan to the recipient country	●	
	2) Tax exemption and custom clearance of the products at the port of disembarkation		●
	3) Internal transportation from the port of disembarkation to the project site		●
10.	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.		●
11.	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts.		●
12.	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant.		●
13.	To bear all the expenses, other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and installation of the equipment.		●

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ANNEX-III

The following necessary measures should be taken by the Government of Indonesia if the Grant Aid by the Government of Japan is extended to the Project.

1. To ensure prompt unloading and customs clearance at ports of disembarkation in Indonesia and internal transportation of the products purchased under the Grant Aid.
2. To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in Indonesia with respect to the supply of the products and services under the Verified Contracts.
3. To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts such equipment as may be necessary for their entry into Indonesia and stay therein for the performance of their work.
4. To bear commissions to the Japanese foreign exchange bank for its banking services based upon the Banking Arrangement, namely the advising commission of the "Authorization to Pay" and payment commissions.
5. To bear all expenses, other than those covered by the Grant, necessary for the Project.
6. To maintain and use properly and effectively the equipment purchased under the Grant Aid.
7. To coordinate and solve any issues related to the Project which may be raised from third parties or inhabitants in the Project area during implementation of the Project.
8. To carry out such works as follows:
 - (1) Overhaul of existing equipment
 - (2) Renovation of control room and studio
 - (3) Reconstruction of studio floor

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(2) Explanation of Draft Basic Design

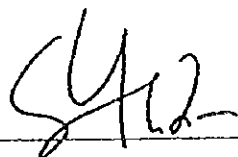
MINUTES OF DISCUSSIONS
BASIC DESIGN STUDY ON THE PROJECT
FOR
EQUIPMENT SUPPLY TO TV TRAINING CENTER
IN
THE REPUBLIC OF INDONESIA
(EXPLANATION OF DRAFT BASIC DESIGN)

In November 1996, Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched a Basic Design Study Team on the Project for Equipment Supply to TV Training Center (hereinafter referred to as "the Project") to the Republic of Indonesia, and through discussions, site survey, and technical examination of the results in Japan, prepared the Draft Basic Design on the study.

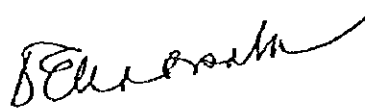
In order to explain and to consult the Government of the Republic of Indonesia on the components of the Draft Basic Design, JICA sent to Indonesia a study team, which is headed by Mr. Masao Yoshida, Development Specialist, JICA, and is scheduled to stay in the country from 26th to 31st of January, 1997.

As a result of discussions, both side have confirmed the main items described in the attached sheets.

Jakarta, 30th of January, 1997



Mr. MASAO YOSHIDA
Leader
The Explanation Team
for Draft Basic Design
Japan International
Cooperation Agency
(JICA)



Mr. Ir. DEWABRATA
Director General
Directorate General of Radio,
Television and Film
Ministry of Information

Acknowledged by



Ny. ENNI ROCHMAENI RACHMAT SH.
Head of Bureau for Law, Social
Communication and Information,
National Development Planning Agency
(BAPPENAS)

ATTACHMENT

1. OBJECTIVE

The objective of the Project is to replace the out-dated training equipment in TVRI Training Center (TVTC), Jakarta with newer and more sophisticated equipment, thereby enhance quality of training in TVTC.

2. PROJECT SITE

The Project site is TVTC located in Jakarta.

3. RESPONSIBLE MINISTRY AND EXECUTING AGENCY

Responsible Ministry : Ministry of Information
Executing Agency : Directorate General of Radio,
Television and Film, Ministry of
Information

4. COMPONENTS OF DRAFT BASIC DESIGN

The Government of Indonesia (hereinafter referred to as "The Indonesian side") has agreed and accepted in principle the components of the Draft Report proposed by the Team. The major componets were described in ANNEX-I.

5. JAPAN'S GRANT AID SYSTEM

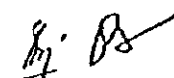
The Indonesian side has understood the system of Japan's Grant Aid explained by the team in ANNEX- II.

6. NECESSARY MEASURES TO BE TAKEN BY THE INDONESIAN SIDE

The Indonesian side will take necessary measures described in ANNEX-III for smooth implementation of the Project on condition that the Grant Aid by the Government of Japan is extended to the Project.

7. FURTHER SCHEDULE

The team will make the Final Basic Design Study Report in accordance with the confirmed items, and send it to Indonesian side by the end of March, 1997.



LIST OF EQUIPMENT

Equipment	Quantity	Remarks
I EQUIPMENT FOR TV STUDIO		
1 STUDIO LIGHTING SYSTEM		
(1) Lighting control console	1 set	100 circuits controled by PC
(2) Dimmer bank	1 set	2kW X 96, 4kV X 4 Dimmer unit
(3) Spot light	30 units	
(4) Scoop light	20 units	
(5) Background light	30 units	
2 STUDIO CAMERA SYSTEM		
(1) 3 CCD digital studio type camera	3 sets	zoom lens (X20), include CCU
(2) Studio pedestal	1 set	for studio camera, with pan head
(3) Tripod with pan head and dolly	2 sets	for studio camera
(4) Tri-axial cable	3 sets	for camera, include connectors and panel
(5) B/W monitor (14")	3 sets	for camera control
(6) Waveform monitor	3 sets	for camera control
(7) Floor color monitor with stand (29")	2 sets	for studio
(8) Test chart	3 sets	for camera adjusting
(9) Arm crane	1 set	for portable camera
3 VIDEO EQUIPMENT SYSTEM		
(1) Digital video production switcher	1 set	12 input, 2 Mix and Effect
(2) B/W Monitor (14")	8 sets	for preview in the sub control room
(3) Color monitor (20")	8 sets	for program monitor
(4) Character generator	1 set	
(5) Sync generator	2 sets	include Change over switch
(6) Video and Audio routing switcher	1 set	video switcher is digital type
(7) Digital video distributor	1 set	
(8) Frame synchronizer	1 set	
(9) Waveform monitor	1 set	
(10) Vectorscope	1 set	
(11) D/A converter	2 sets	
(12) A/D converter	3 sets	
(13) Video patching panel	1 set	with patching cord
(14) Production swither console	1 set	
(15) System rack	4 sets	
(16) Color master monitor (14")	1 set	with input selector

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Equipment	Quantity	Remarks
4 AUDIO EQUIPMENT SYSTEM		
(1) Digital multichannel audio tape recorder (8 channel)	1 set	
(2) Digital cassette audio tape recorder	2 sets	
(3) Compact disk player	1 set	
(4) A/D converter	1 set	
(5) D/A converter	1 set	
(6) Audio distributor	1 set	
(7) Gun microphone	1 set	
(8) Wireless microphone	1 set	
(9) Monitoring speaker	5 sets	with amplifier
(10) Intercom system	1 set	
(11) Dynamic noise limiter	1 set	
(12) Boom stand	1 set	
(13) Audio patching panel	2 sets	analog type with patching cord
5 OTHERS		
(1) On the air lamp controller	1 set	
(2) On the air lamp	1 set	
(3) Chair	1 set	
II EDITING SYSTEM		
1 A-B ROLL EDITING		
(1) Digital VTR	2 sets	for playback
(2) Digital VTR	1 set	for recording/playback
(3) Editing controller	1 set	
(4) Video switcher	1 set	8 input, 1 Mix and Effect
(5) Audio mixer	1 set	8 input
(6) Character generator	1 set	
(7) Digital video effect	1 set	
(8) Color monitor (20")	6 sets	2 Monitors have a speaker
(9) Waveform monitor	1 set	
(10) Vectorscope	1 set	
(11) Audio monitoring speaker	1 set	with amplifier
(12) Digital audio tape recorder	1 set	
(13) Cassette type audio tape recorder	1 set	
(14) Audio time delay unit	1 set	
(15) Console	1 set	
(16) A/D, D/A converter	1 set	

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Equipment	Quantity	Remarks
2 SIMPLE EDITING		1 : 1 editing
(1) Digital VTR	1 set	for recording
(2) Color monitor (20")	1 set	with speaker
III AUDIO AND VIDEO MEASURING EQUIPMENT		
(1) Audio measuring instrument	1 set	
(2) Video measuring instrument	1 set	
IV TRANSMITTER EQUIPMENT		
(1) TV transmitter (25W)	1 set	with multichannel audio modulator
(2) TV demodulator	1 set	
(3) Audio analyzer	1 set	
(4) Modulation analyzer	1 set	
V EQUIPMENT FOR ELECTRONIC LABORATORY		
(1) Digital multimeter	10 sets	
(2) Digital experiment kit	10 sets	
(3) Digital display oscilloscope	10 sets	2 channels, 100MHz
(4) Multifunction generator	10 sets	
VI EQUIPMENT FOR ENG		
(1) Digital ENG camera	1 set	with standard lens
(2) Hand lamp	1 set	
VII COMMON		
(1) Spare parts	1 set	
(2) Tools	1 set	
(3) Materials for installation	1 set	

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ANNEX-II Japan's Grant Aid

1 Japan's Grant Aid System

(1) Grant Aid Procedures

- 1) Japan's Grant Aid Programme is executed through the following procedures.

Application (request made by a recipient country)

Study (Basic Design Study conducted by JICA)

Appraisal & Approval (Appraisal by the Government of Japan and Approval by Cabinet)

Determination of Implementation (The Notes exchanged between the Government of Japan and the recipient country)

- 2) Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Grant Aid. If the request is deemed appropriate, the Government of Japan will assign JICA (Japan International Cooperation Agency) to conduct a study on the request.

Secondly, JICA conducts the study (Basic Design Study), using (a) Japanese consulting firms(s).

Thirdly, the Government of Japan appraises the Project to see whether or not it is suitable for Japan's Grant Aid Programme, based on the Basic Design Study report prepared by JICA, and the results are then submitted to the Cabinet for approval.

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Fourthly, the Project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Government of Japan and the recipient country.

Finally, for the implementation of the Project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

(2) Basic Design Study

1) Contents of the Study

The aim of the Basic Design Study (hereafter referred to as "the Study"), conducted by JICA on a project requested (hereafter referred to as "the Project") is to provide a basic document necessary for the appraisal of the Project by the Government of Japan. The contents of the Study are as follows:

- a) Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation
- b) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economic point of view
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2) Selection of Consultants

For smooth implementation of the Study, JICA uses (a) registered consultant firm(s). JICA select (a) firms(s) based on proposals submitted by interested firms. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference set by JICA.

It is important that the recipient country should make a contract promptly with the same consulting firm(s) used for the Basic Design Study which is(are) recommended by JICA, in order to maintain technical consistency and also avoid the undue delay in implementation of the project under the single fiscal year system of Japan's Grant Aid.

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1) What is Grant Aid?

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2) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

3) "The period of the Grant Aid" means the one fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedures such as exchanging of the Notes, concluding contracts with (a) consultant firm(s) and (a) contractor(s) and final payment to them must be completed.

However in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

4) Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country.

However the prime contractors, namely, consulting, constructing and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

5) Necessity of "Verification"

The Government of recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability to Japanese taxpayers.

my

H. B.

6) Undertakings required of the Government of the Recipient Country

In the implementation of the Grant Aid project, the recipient country is required to undertake such necessary measures as the following:

- a) To secure land necessary for the site(s) of the Project and to clear, level and reclaim the land prior to commencement of the construction.
- b) To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the site(s).
- c) To secure buildings prior to the procurement in case the installation of the equipment.
- d) To ensure prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid.
- e) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts.
- f) To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

my

Kj. B.

g) "Proper Use"

The recipient country is required to maintain and use the facilities constructed and equipment purchased under the Grant Aid properly and effectively, and to assign staff necessary for this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.

h) "Re-export"

The products purchased under the Grant Aid should not be re-exported from the recipient country.

i) Banking Arrangements (B/A)

a. The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in an authorized foreign exchange bank of Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.

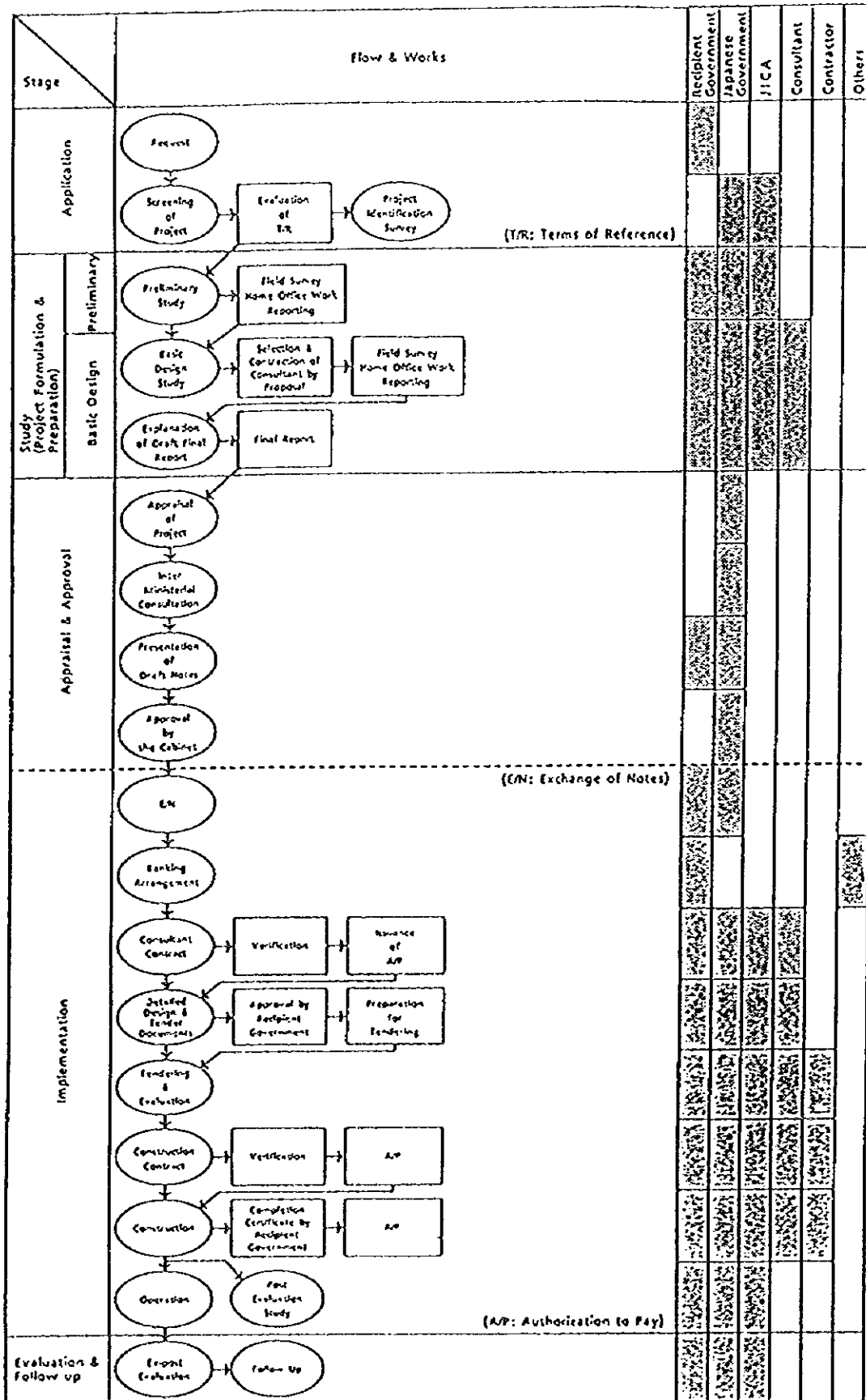
b. The payments will be made when payment requests are presented by the Bank to the Government of Japan under an authorization to pay issued by the Government of the recipient country or its designated authority.

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Km. B

2. Grant Aid Procedures

Flow Chart of Japan's Grant Aid Procedures



my

Ym-B

ANNEX III

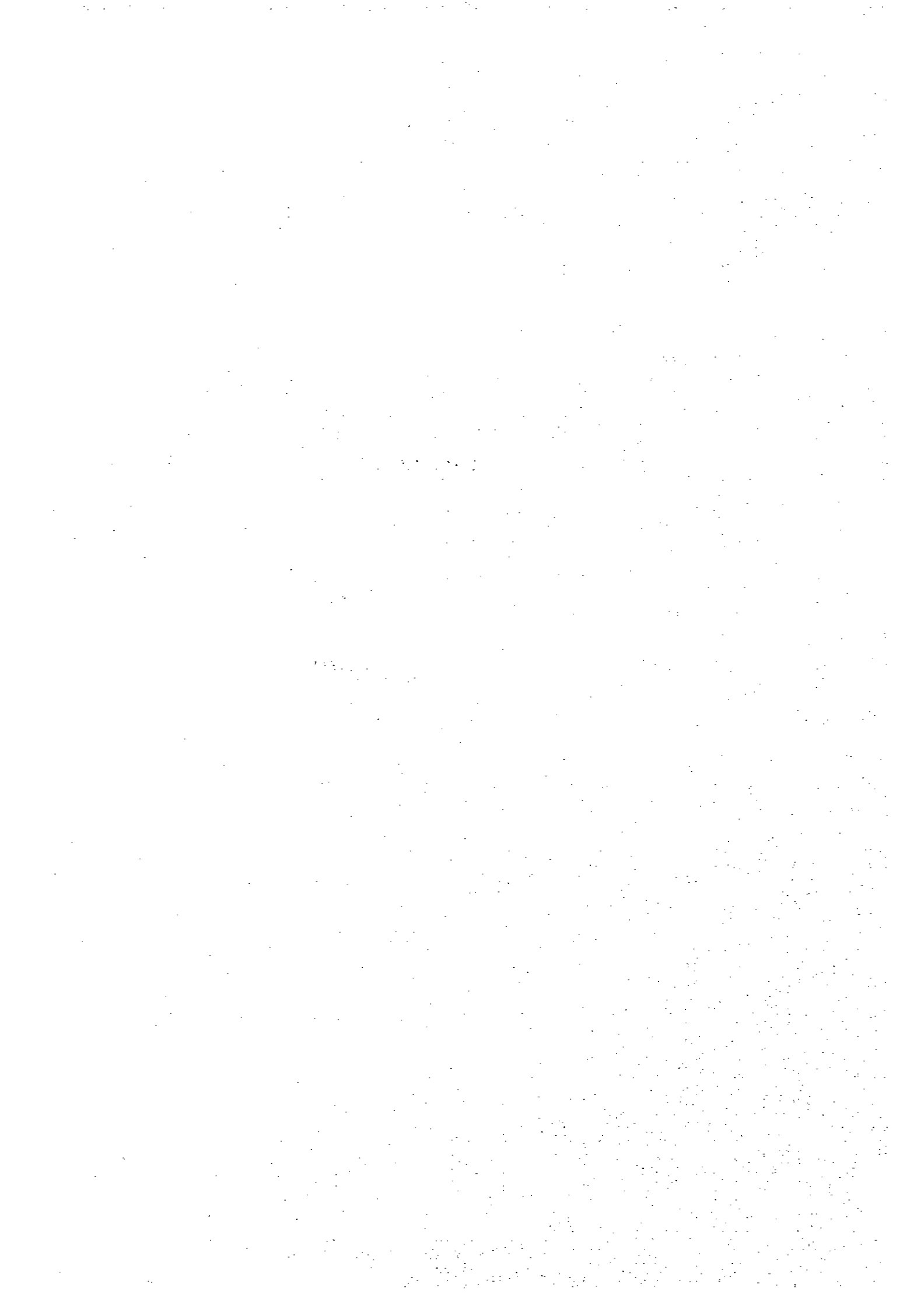
The following necessary measures should be taken by the Government of Indonesia if the Grant Aid by the Government of Japan is extended to the Project.

1. To ensure prompt unloading and customs clearance at ports of disembarkation in Indonesia and internal transportation of the products purchased under the Grant Aid.
2. To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in Indonesia with respect to the supply of the products and services under the Verified Contracts.
3. To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts such equipment as may be necessary for their entry into Indonesia and stay therein for the performance of their work.
4. To bear commissions to the Japanese foreign exchange bank for its banking services based upon the Banking Arrangement, namely the advising commission of the "Authorization to Pay" and payment commissions.
5. To bear all expenses, other than those covered by the Grant, necessary for the Project.
6. To maintain and use properly and effectively the equipment purchased under the Grant Aid.
7. To coordinate and solve any issues related to the Project which may be raised from third parties or inhabitants in the Project area during implementation of the Project.
8. To carry out such works as follows:
 - (1) Overhaul of existing equipment
 - (2) Renovation of control room and studio
 - (3) Reconstruction of studio floor

my

Y. B.

5. References



5. References

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4. MINISTRY OF INFORMATION REPUBLIC OF INDONESIA, MULTIMEDIA TRAINING CENTER (MMTC)
5. Curricula of TVTC's training courses
6. Curricula of MMTC's training courses
7. List of training equipment in the TVTC
8. List of main equipment in the TVRI stations
9. Weekly TV program list of TVRI and all commercial stations in Indonesia
10. Brochure of PT. INDOSIAR VISUAL MANDIRI

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