# **Chapter 3** Implementation Plan

# 3-1 Implementation Plan

# 3-1-1 Implementation Concept

The Project will be launched hand in hand with the Project-type Technical Cooperation for 5 years at its inception.

The practical implementation plan will be formulated during the period of the said Technical Cooperation by Japanese experts and Vietnamese staff. The administrative organization, training curriculum, tuitions and number of trainees to be accommodated will all be optimized reflecting the actual operational experience gained during this period.

An organization structure of the Project is proposed by the Vietnamese side as shown in Figure 3.1, which has been worked out based upon their experience in business seminars in the past and therefore should be taken as a tentative idea. It was presented here on the purpose to see financial viability of the Project at this stage. The organization chart indicates number of personnel in each section, but not those of lecturers.

The execution agency of the Project on the Vietnamese side is the Foreign Trade University (FTU), and therefore, the Project will be supervised and administrated by an advisory board staffed with impotent persons of the University.

# 3-1-2 Implementation Conditions

### (1) Financial Viability of the Project

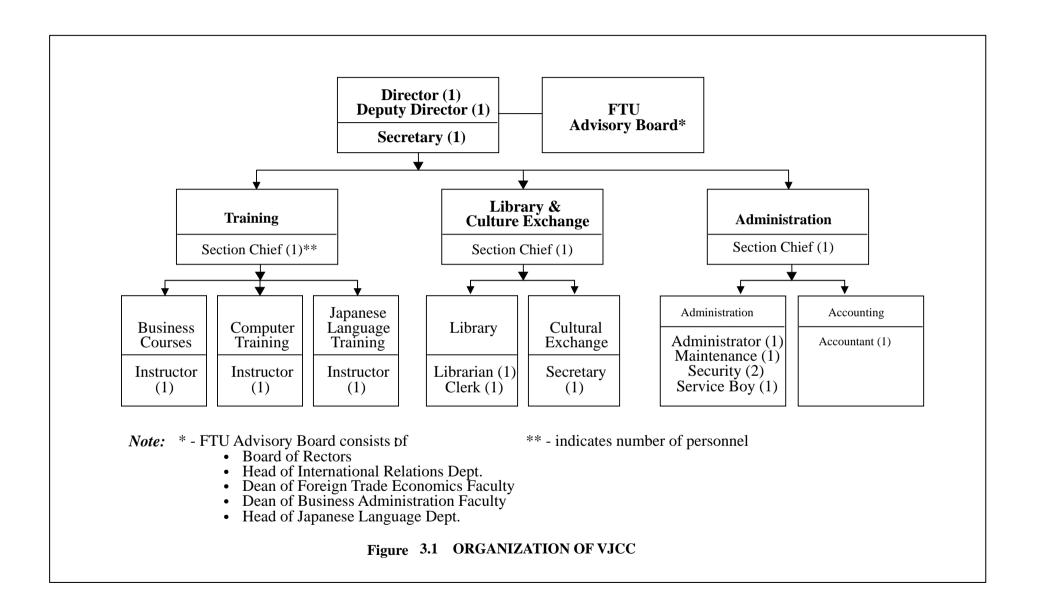
Both the Vietnamese and Japanese sides have confirmed that the Project is to be independent, both technically and financially, of FTU, which has been stated in the report prepared by the Preliminary Study Mission of JICA for the Project-type Technical Cooperation Scheme. All seminar and training courses are to be charged to gain revenue to run the Project self-sufficiently. Balance will have to be struck between the income from the tuition and expenses, including personnel expenses, remuneration for lecturers and other facility running expenses such as electricity.

## (2) Project Personnel and Competency

Lecturers will certainly hold a key to the success of the Project. All lecturers according to the Vietnamese side's plan will be engaged on a part time basis who will be recruited from all possible fields, including university professors and

lecturers, outstanding people in specialized fields and successful business executives. The extensive network of FTU alumnae will be fully utilized in this regard. Through the Project-type Technical Cooperation on the other hand, it may be possible to expect that some prospective computer or Japanese language instructors are grown.

As regards capability of operation and maintenance of the Training Equipment and building service systems, it will be no consequence, for FTU already has and are familiar with equivalent computers and LL equipment as well as air conditioning equipment in several rooms of their buildings. The Training Equipment introduced in the Project and requiring familiarization will mainly be the audio-visual equipment in Multi-purpose Room and Library. The period of the Project-type Technical Cooperation should be sufficient for Vietnamese staff to get working knowledge and experience in maintenance and light repair of these equipment.



# 3-1-3 Scope of Works

#### (1) Construction Planning

- Construction Period: Hanoi city where the Project is sited is located inland at about 120 km west of Haiphong Port, the primary international trade port in northern region. The site for the project, FTU, is located at abut 4 km west of downtown Hanoi. The construction of the Project Facilities is estimated to take 10 months from its commencement in consideration of the above geographical situation and other natural and social conditions around the site and local construction conditions.
- Construction Method: Construction materials and construction machinery
  which are available locally will be used as much as possible and the
  construction methods and practices which are acceptable will to the extent
  possible be accommodated. Work and stock yards will be carefully planned
  within the limited space allowed in the University campus to carry out
  efficient and safe construction procedure.

#### (2) Particular Consideration on Construction

Basic principle in execution of construction works will be as given below:

- Strict observance of construction period
   Japanese consultant will dispatch to the site engineers to supervise construction works. They will with utmost care watch the progress of works and render guidance to the contractor so that the construction period is not slipped.
- Securing quality and quantities of works
   Japanese consultant's construction supervisor will pay careful attention to the quality of works in the field so that they will comply with the drawings and specifications without any omission to fully complete the Project Facilities.
- Safety in construction
   Utmost care will be exercised by all the construction parties to keep safety inside the University campus, especially giving priority to the students as well as to other University personnel.
- Noise suppression

As the construction activities proceed simultaneously with those of the study of students in the campus, noise and dust generated at the construction site must be kept to a minimum. In an unavoidable case, the construction parties will notify the University in advance and obtain its consent on the proposed noise or dust suppression measures to minimize harms to the study.

## Building permit

For the Project Facilities, a building permit will have to be granted from the Chief Architect of Hanoi, with which procedure FTU is familiar through the experience in the previous school building constructions. The Japanese consultant will seek assistance of FTU in design review, construction inspection etc. by the concerned authorities so that there will be no hitch in the progress of construction owing to these administrative formalities.

## (3) Training Equipment Procurement

The Training Equipment including some furniture supplied by the Project will be procured in principle from local market, manufacturers or suppliers or from third countries in so far as they are of acceptable quality or compatibilities with other equipment components are secured, while such special equipment as audio-visual equipment will be procured from Japan.

## (4) Demarcation of Works

The demarcation of responsibility to carry out various kinds of undertaking to implement the Project between Japanese and Vietnam sides are as summarized in Table 3.1.

Japanese Side Vietnam Side • Temporary site office **Temporary**  Land acquisition Works • Site clearance of existing obstacles and leveling Construction Construction of building • Assistance in obtaining building Works permits • Power distribution line connections to power room • Telephone handsets and connection Furniture • Seminar Room furniture • Reception furniture • Office equipment and furniture · Consumables etc. Training • Information service equipment Equipment · Computers for training · Sound system for seminar **Exterior Works** • Paving for car parking Landscaping • Paving for passageways • Gate and fence if necessary

Table 3.1 Demarcation of Works

### 3-1-4 Consultant Supervision

The Japanese consultant will send Japanese engineers to Vietnam to supervise construction during the construction period. Dispatch of them will consist of a resident and spot-dispatched engineers. The resident engineer's position will be filled by the Building Engineer among those listed below, who will be supported

by the other spot-engineers in an efficient timing. The staff and their job assignment will be as described below;

- (1) Project Manager: He will manage all aspects of detail design, tendering and construction supervision.
- (2) Building Engineer: He will be responsible during design period for design of architecture and structure of the building facility. In the construction supervision phase he will be resident engineer and as chief in the field responsible for overall supervision and guidance, including quality control, approval of shop drawings, construction schedule etc.
- (3) Electrical Engineer: He will be responsible during design period for design of electrical system in the building. In the construction supervision phase, he will be responsible for approval of shop drawings and correct manufacturing and erection of electrical system.
- (4) Mechanical Engineer: He will be responsible during design period for design of airconditioning and plumbing systems in the building. In the construction supervision phase, he will be responsible for approval of shop drawings and correct manufacturing and erection of airconditioning and plumbing systems.
- (5) Equipment Expert: He will be responsible during design period for Training Equipment design and specifications. In the construction supervision phase he will be responsible for approval of shop drawings, shop inspection and erection of the Equipment in the site.

#### 3-1-5 Procurement Plan

#### (1) Labor Conditions

All construction related labors such as common labors, foremen, mechanics, machine operators are available in Hanoi. However, individual competency vary considerably and therefore skilled workmen on important jobs should be tested before employment by the Japanese contractor who undertakes the construction. Assistant engineers, field supervisors and the like who will support Japanese engineers can also be employed locally.

As regards the wages for labors, minimum wages are prescribed by law. However, they are applicable to those of the state companies and are not necessarily the same as the actual market rates. Wages for reliable skilled labors tend to be rather higher than the official rates. In order to secure quality workmanship as discussed previously, practical market rates will have to be used to employ quality workers.

#### (2) Construction Materials

The material procurement plan for all works will be as shown in Table 3.2. All common structural materials are available in Vietnam. Specially, ready mixed concrete is of good quality and well supplied in Hanoi. Steel structural materials and fabricating shop are available locally, though not popularly used because of higher costs.

Window frames and metal roofing material can also be procured locally as their qualities are acceptable. On the other hand, the movable partition will better be procured from Japan because of the high sound proofing requirement. The floor tile for Lobby which will present the frontal face of the Project Facilities (Japan Center) will be selected from local materials which will attach a Japanese feel to the room.

Building service equipment will generally be procured locally. Regarding the airconditioning equipment, local market are full of Japanese and third countries' manufacture, which are not distinctive in quality. Therefore, they will be procured locally except special models which will be imported from Japan.

## (3) Training Equipment

Among the Training equipment, the audio-visual equipment of Japanese make are world renowned for quality, design and performance which the Vietnamese side naturally likes to have. On the other hand personal computers market is dominated by American brands diminishing the role of Japan in here. In Vietnam computers are being used installing Vietnamese software over English basic operating systems. This fact makes it more convenient for them to have American brands (IBM, Compaq, Dell etc.) manufactured in Southeast Asian countries (Singapore, Malaysia, Taiwan) due to software compatibility.

Furniture for class room purpose which are available in local market are either local wood furniture or imported metal furniture from third countries (e.g. China). The wood furniture are generally of poor quality. Consequently, desks and chairs for the training rooms will be imported from a third country such as Singapore, while furniture for administrative services will be selected from the wooden ones as the requirement are not so severe.

Following table summarizes the procurement sources of various materials and equipment incorporated in the Project Facilities.

Table 3.2 Procurement Plan

Aluminum Windows  Wood Doors Glass Tile Vinyl Floor Tile Paint Lighting Fixtures Electrical Distribution Panels Electrical Cables Electronic Equipment PVC Pipe Zinc Coated Pipe Plumbing Fixtures Pumps Water Tanks	Item	Availability		Procurement			Notes	
Gravel, Crushed Stone Portland Cement Ready-mixed Concrete Steel Reinforcement Bars Concrete Formwork Panel Structural Steel Brick Metal Roof Movable Partitions Aluminum Windows Wood Doors Glass Tile Vinyl Floor Tile Paint Lighting Fixtures Electrical Distribution Panels Electronic Equipment PVC Pipe Zinc Coated Pipe Plumbing Fixtures Plumps Water Tanks Air Conditioner Fire Hydrant Transformers Diesel Generator  Personal Computer Audio-visual Equipment Personal Computer Audio-visual Equipment Personal remains and some a		good	poor	Vietnam	Japan	Third C		
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Ready-mixed Concrete  Steel Reinforcement Bars  Concrete Fornwork Panel  Structural Steel  Brick  Metal Roof  Movable Partitions  Aluminum Windows  Wood Doors  Glass  Tile  Vinyl Floor Tile  Paint  Lighting Fixtures  Electrical Distribution Panels  Electrical Cables  Electroic Equipment  PVC Pipe  Zinc Coated Pipe  Plumbing Fixtures  Pumps  Water Tanks  Air Conditioner  Fire Hydrant  Transformers  Diesel Generator  Personal Computer  Audio-visual Equipment  Seminar Furniture  Partially procured in Vietnam	Gravel, Crushed Stone							
Steel Reinforcement Bars Concrete Fornwork Panel Structural Steel Brick Metal Roof Movable Partitions Aluminum Windows Wood Doors Glass Tile Vinyl Floor Tile Paint Lighting Fixtures Electrical Distribution Panels Electrical Cables Electronic Equipment PVC Pipe Zinc Coated Pipe Plumbing Fixtures Pumps Water Tanks Air Conditioner Fire Hydrant Transformers Diesel Generator Personal Computer Audio-visual Equipment Partially procured in Vietnam  Partially procured in Vietnam	Portland Cement							
Concrete Fornwork Panel  Structural Steel  Brick  Metal Roof  Movable Partitions  Aluminum Windows  Wood Doors  Glass  Tile  Vinyl Floor Tile  Paint  Lighting Fixtures  Electrical Distribution Panels  Electrical Cables  Electronic Equipment  PVC Pipe  Zinc Coated Pipe  Plumbing Fixtures  Pumps  Water Tanks  Air Conditioner  Fire Hydrant  Transformers  Diesel Generator  Personal Computer  Audio-visual Equipment  Partially procured in Vietnam	Ready-mixed Concrete							
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Lighting Fixtures  Electrical Distribution Panels  Electrical Cables  Electronic Equipment  PVC Pipe  Zinc Coated Pipe  Plumbing Fixtures  Pumps  Water Tanks  Air Conditioner  Fire Hydrant  Transformers  Diesel Generator  Personal Computer  Audio-visual Equipment  Seminar Furniture  Electrical Distribution Panels  Second S	Vinyl Floor Tile							
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Personal Computer Audio-visual Equipment Seminar Furniture Partially procured in Vietnam	Transformers							
Audio-visual Equipment  Seminar Furniture  Partially procured in Vietnam	Diesel Generator							
Seminar Furniture Partially procured in Vietnam	Personal Computer							
Vietnam	Audio-visual Equipment							
Office Furniture	Seminar Furniture							
	Office Furniture							

# (4) Constructional Equipment

Major construction equipment are all available in Hanoi city. For the major construction item in building, concrete casting, use of a concrete pump is not witnessed yet. Casting of concrete is normally done by bucket and chute method. This method can be employed for construction of the Project Facilities as well because scale of the building is not so large.

# 3-1-6 Implementation Schedule

According to the procedure of the Grant Aid Scheme, implementation schedule of the Project will be as illustrated below:

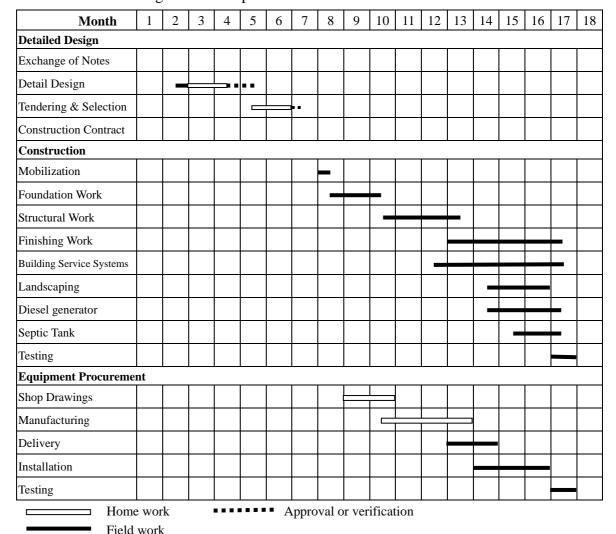


Figure 3.3 Implementation Time Schedule

# 3-1-7 Obligations of Recipient Country

In case the Project is implemented under Japanese Government's Grant Aid Scheme, the recipient country, Vietnam, and the Implementing Agency, Foreign Trade University, will be obligated to undertake the following measures. This matter was explained to the Vietnamese side at the time of Basic Design Study Survey and confirmed in the Minutes of Discussion.

• Secure exemption of all tax and duty from any goods or services provided for the Project under the Japanese Grant Aid Scheme.

- Assure that all goods and materials imported for the Project under the Grant Aid Scheme will be promptly unloaded, cleared through customs and delivered to the site.
- Payment of banking charges incurred under the Banking Agreement.
- Provide all necessary assistance to allow Japanese nationals to enter and reside in Vietnam for the purposes of carrying out services under the certified contract.
- Exempt Japanese nationals from all taxes and levies incurred in Vietnam for the services procured under the certified contract.
- Maintain and use the facility and equipment provided by the Project in an appropriate and effective manner.
- Provide any necessary assistance in obtaining permits or governmental approval for the timely implementation of the Project.

# 3-2 Project Cost Estimation

The costs to be borne by the Vietnam side in association with the execution of the Grant Aid Scheme for the Project are estimated to be US\$40,500 in total as broken down in Table A5.1 in APPENDICES.

The above costs are not disbursed all at once, according to the progress of the implementation as discussed previously, in the first year US\$22,500 and in the next remaining US\$18,000. These cost would not be a heavy financial burden to FTU as they account for about 2.6% and 2.1% respectively of the FTU's annual budget of US\$857,200.

### 3-3 Operation and Maintenance Costs

#### 3-3-1 Maintenance Cost

Regarding the maintenance of the Project facilities, day to day operation, inspection and repair will be the responsibility of the Project, the Maintenance of the Administration Section in the organization chart presented in Figure 3.1 hereto. However, major repair or overhaul is planned to be assisted by the Maintenance Section of FTU. The Training Equipment on the other hand will be maintained by the Training Section of the same chart, to which the experts of the Project-type Technical Cooperation will render enough training for 5 years to endable Vietnamese staff to operate, inspect and repair these equipment on their own in the future.

Following are major maintenance items in each category with estimated annual costs:

• Building : Inspection and repair costs for rain leakage,

broken window panes, damaged paint, unfit

door locks, damaged tiles etc.

250\$/month x 12 = 3,000 \$/year

Building service

systems

Test operation, inspection and repair costs for

power receiving substation 3,000 \$/year

Inspection and repair costs of airconditioning

and ventilation equipment 2,000 \$/year

Inspection and repair costs for water supply and drain pumps, plumbing fixtures, piping etc.

1,000 \$/year

• Training Equipment : Operation and maintenance costs for AV

equipment, computers etc. 1,500 \$/year

Total 10,500 \$/year

## 3-3-2 Operation Cost

Operation cost of the Project will consist of personnel cost, remuneration for lecturers and instructors and power and water charges. Estimate of these costs is given hereunder.

• Personnel cost will be calculated based upon the following monthly wages and each number of personnel:

Director	2,000,000 VND/month	(143 US\$/m)
Deputy director	1,600,000 VND/month	(114 US\$/m)
Section chief (Training, Library and Culture Exchange and Administration)	e 1,300,000 VND/month	(93 US\$/m)
Instructor, accountant, librarian, secretary for		
Advisory Board	1,000,000 VND/month	(71  US\$/m)
Secretary	700,000 VND/month	(50 US\$/m)
Administrative personnel	500,000 VND/month	(36 US\$/m)
Total personnel cost:	212,400,000 VND/year	(15,171 US\$/year)

 Remuneration for lecturers and instructors will differ by the grades as given below:

Normal grade 50,000~70,000 VND/hr Special grade 140,000 VND/hr

Assuming working hours by these lecturers, on average throughout various seminars and training courses 42 weeks/year, 5 days/week, 5 hours/day,

remuneration for normal grade lecturers of 60,000 VND/hr and 7 : 3 proportion between the normal grade lecturers and special grade lecturers, the total remuneration will come to be 441,000 VND/year (31,500 US\$/year).

• In the power and water charges, power is dominant and water charge is negligible:

Unit power charge: 810 VND/kwh

Assuming a total electric system capacity of 150 kVA, simultaneous use factor of 0.8, working hours of 6 hrs/day, 5 days/week and 42 weeks/year, and seasonal factor of 0.7 considering winter time when airconditioners may rarely be used, electric charge is calculated as follows:

Electric charge: 85,730,400 VND/year (6,124 US\$/year)

Summing up all these cost, the annual operation cost of the Project will be as given below:

Personnel cost 15,171 US\$/year

Remuneration for lecturers 31,500

Power charges etc. 6,124

52,795 US\$/year

Combined with the maintenance cost as previously discussed, the total operation and maintenance costs will amount to 63,295 US\$/year.

# 3-3-3 Revenue Projection

Revenue gained through various seminars and training courses can be calculated based upon the following training program and tuitions currently proposed by the Vietnamese side.

Table 3.4 Training Program

			Total		Total
	Kinds of	Annual	annual	Trainees	annual
	courses	cycle	courses	per course	trainees
Business seminar	10	3	30	40	1,200
Japanese language course	4	2	8	30	240
Computer course	15	2	30	15	450

### • Tuitions:

Business seminar : 30 US\$/course
Japanese language course : 120 US\$/course
Computer course : 50 US\$/course

• Total tuition as Project revenue

Business seminar : 36,000 US\$/year

Japanese language course : 28,800 US\$/year

Computer course : 22,500 US\$/year

Total 87,300 US\$/year

Compared with the operation and maintenance cost previously calculated as 63,295 US\$/year, the revenue is found to be larger, confirming the Project's financial viability on the assumed conditions and plans at this stage.