THE JOINT STUDY
ON
ASEAN-PACIFIC COOPERATION
FOR
HUMAN RESOURCES DEVELOPMENT

2-5 DECEMBER, 1985

TOKYO, JAPAN

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CONTENTS

1. SUMMARY RECORD

1. Summary Record

Introduction

1. Pursuant to the decision of the 18th ASEAN Ministerial Meeting in Kuala Lumpur, 8-10 July, 1985 and subsequent endorsement by the Post-Ministerial Conference, 11-13 July, 1985, on the implementation of ASEAN-Pacific Cooperation for Human Resources Development (APC-HRD) Immediate Action Program, the meeting of the Joint Study on APC-HRD (Project No.25) was convened in Tokyo from 2 to 5 December, 1985. The Joint Study was sponsored by the Japanese Government and attended by delegates and experts from Indonesia, Philippines, Singapore, Thailand, Fiji, Papua New Guinea, Australia, Canada, New Zealand, United States and Japan. A representative of the ASEAN Secretariat also attended. The list of attendance appears as ANNEX A.

2. Madame Mayumi Moriyama, Parliamentary Vice-Minister for Foreign Affairs of Japan, opened the meeting.

The full text of the opening statement appears as ANNEX B.

3. The Meeting was chaired by Professor Dr. Hiroshi Inose, University of Tokyo, Chairman of the Committee for Scientific and Technological Policy of the OECD. Mr. Djoko Soejono of the ASEAN Secretariat and Dr. Alex Buchanan of Australia were rapporteurs of the Meeting.

Country Reports

4. Country reports were presented by Australia, Fiji, Indonesia, Papua New Guinea, Japan, Philippines, Singapore, Thailand and the United States.

A summary of the reports appears as ANNEX C. The full reports of each country appear as ANNEXES D, E, F, G, H, I, J, K and L respectively.

Principles

5. The discussion broadly covered problems related to linkages or networks among institutions as well as general aspects of APC-HRD. The Meeting recognized that there already existed a variety of regional programs that are producing significant results in the area of HRD, and agreed that those programs should be further expanded in light of the principles and guidelines mentioned below. In the course of discussion the following basic principles were identified for APC-HRD:

Any program;

a) should encourage joint cooperation to enhance the attainment of the economic and social objectives of the ASEAN and South Pacific developing countries;
b) should be open to participation of the South Pacific developing countries at project level;
c) should accelerate development efforts of the ASEAN and Pacific countries through the fullest possible realization of human potential;

d) should facilitate the sharing of experience among the participating countries in respect of human resources development;

e) should provide additional impetus for active involvement of the public and private sectors in support of economic growth in the region; and

f) should concentrate on areas of common interest where the sharing of experience and resources is appropriate and mutually beneficial.

Operational Guidelines and Procedures

6. The Meeting further identified the following operational guidelines which are to be taken into consideration:

a) Existing institutions are to serve as the basis for the planning and implementation of APC-HRD programs;

b) Priority areas are to be identified;

c) Human Resources Development should be defined broadly to encompass not only institutional or academic types of training but also research and development;

d) A flexible and practical approach should be adopted which enhances ASEAN's institutional role;

e) The APC-HRD should concentrate on projects such as those involving technology transfer and sharing of resources where international/regional cooperation is useful and appropriate, rather than activities which are more specific to particular nations, and

f) APC-HRD programs should encompass both academic and technical

cooperation, with due respect to their distinct nature, objectives and approaches.

7. It was noted that all projects which are proposed under the APC-HRD should be referred to the relevant bodies in ASEAN and the existing APC-HRD arrangement for approval.

Approaches

8. The Meeting considered two approaches to APC-HRD, namely:

(i) An institution-oriented approach

(ii) A program-oriented approach

9. The program-oriented approach was considered to provide more flexibility in the light of existing constraints, whereas the institution-oriented approach may have certain political and administrative constraints to implementation. The institutional support will be identified once the programs have been approved.

10. The Meeting noted the importance of efforts:

a) to forecast human resources requirements in the light of changing economic structures and conditions in the world economy;

b) to develop training and retraining methods;

c) to develop incentive schemes at the micro and macro level for higher productivity; and

d) to include human relations skills in HRD programs.

11. Delegates agreed that Human Resources Development should be viewed as necessary for economic and social development to fulfil their aspirations in a rapidly changing world economy. They also agreed that the private sector has great potential and responsibility for assisting such development. The APC-HRD program therefore should involve academics, researchers, governments, the private sector and international organizations.

Program Areas

12. The Meeting exchanged views on possible future APC-HRD projects in various program areas, including:

- Utilization and mobilization of human resources
- Technology transfer, focusing on the need to address the problems of obsolescence of knowledge and skills
- Information networks and centers
- Wider participation in training courses; expansion of staff exchanges through existing arrangements and of appropriate existing ASEAN regional activities

Types of Activities

13. The program areas mentioned above could be implemented by:

- Information exchange and communication
- Personnel exchanges
- Conferences, seminars, workshops
- Joint research
- Joint development of technologies
- Training courses including management development

- Library research
- Development of teaching aids
- Cross recognition of academic credits
- Development of joint academic programs
- Data sharing

Participating Institutions

14. The Meeting noted that the APC-HRD should work through existing institutions in the region, including national, regional and private establishments.

Follow-up Action

15. The Meeting agreed to ask experts from participating countries to prepare papers in their individual capacity on possible future projects under APC-HRD referred to in paragraph 12, by 15 January, 1986.

The terms of reference for this elaboration were agreed as follows:

- to define the rationale and objectives of specific projects
- to prepare the project outline and the modality of implementation
- to define and identify resource requirements
- to suggest institutions which could participate in each project, and
- to relate, if possible, the proposed projects to existing activities and avoid duplication

16. It was further agreed that each expert's paper should be collated and supplemented as necessary so that it would be in a suitable form for consideration by ASEAN governments and dialogue partners.

17. The Meeting agreed that should the experts' papers be of relevance to the APC-HRD Seminar (Project No.14 of the Immediate Action Program which appears as ANNEX M) to be hosted by Thailand with Australia as the sponsoring country, in Pattaya, March 1986, they could be further studied and elaborated during the Pattaya Seminar.

18. The Meeting agreed on the possible desirability of having a further joint study to consider the experts' papers at a time and place mutually agreed.

19. The delegates expressed their appreciation to the Government of Japan, in particular the Foreign Ministry and the Japan International Cooperation Agency for the warm hospitality accorded to them and for the excellent arrangements made for the Meeting.

2. PROGRAMME

2. Programme

Dec. 2 (Mon.)		
	08:30-09:00	Briefing
	09:30-09:45	Opening speech by Madame Mayumi Moriyama, Parliamentary Vice Minister for Foreign Affairs
	09:45-10:00	Introductory remarks by Chairman
	10:00-11:00	Participants' reports (1) Australia (2) Fiji
	11:00-11:15	Break
	11:15-12:30	Participants' reports - continued (1) Indonesia (2) Papua New Guinea (3) Japan
	12:30-14:00	Lunch
	14:00-15:30	Participants' reports - continued (1) Philippines (2) Singapore (3) Thailand
	15:30-15:45	Break
	15:45-16:15	Participants' reports - continued (1) United States of America
	16:15-17:00	Questions and answers concerning participants' reports
	18:00	Leave TIC for Reception at Nakano Sun-Plaza
	18:30-20:00	Reception hosted by Madame Mayumi Moriyama, at Kujakuno-ma, Nakano Sun-Plaza

Dec. 3 (Tue.)

09:00-11:00	Joint Discussion
11:00-11:15	Break
11:15-12:30	Discussion - continued
12:30-14:00	Luncheon hosted by Chairman, at Assembly Room, TIC
14:00-15:30	Discussion - continued
15:30-15:45	Break
15:45-17:00	Discussion - continued

Dec. 4 (Wed.) Excursion to Tsukuba Science City

Dec. 5 (Thu.)

09:30-10:00	Report on the foregoing presentations and discussions by Rapporteurs
10:00-10:15	Summary of Discussions and the Presentation of Draft Recommendations by Chairman
10:15-11:00	Discussion
11:00-11:15	Break
11:15-12:00	Discussion - continued
12:00-12:10	Closing remarks by Chairman
12:20	Leave TIC for Luncheon at Hotel Kayu Kaikan
13:00-15:00	Luncheon hosted by Mr. Taizo Nakamura, Executive Director, JICA at Hotel Kayu Kaikan

ANNEXES

ANNEX A

List of Attendance

ANNEX A

List of Attendance

(1) Overseas Participants

AUSTRALIA	Mr. Robert Bowker	Head, Economic and Financial Section, Economic Relations Branch, Economic Division, Department of Foreign Affairs
	Ms. Jan Hastings	Acting Head, Training Section, Development Training Branch, Australian Development Assistance Bureau
	Dr. Alex Buchanan	HRD, The Coordinating Consultant for Australia
CANADA	Mr. Peter A. Oldham	Counselor, Embassy of Canada
FIJI	Mr. Odhavji Bhai	Director, Personnel Division, Public Service Commission
INDONESIA	Mr. Achirul Aen	Head, Bureau of Planning and Evaluation, ASEAN National Secretariat, Department of Foreign Affairs
	Prof. Goenawan A. Wardhana	Dean, Post-graduate Studies, University of Indonesia
NEW ZEALAND	Ms. E.A. Thomson	Second Secretary, Embassy of New Zealand
PAPUA NEW GUINEA	Mr. Oala Moi	Senior Project Officer, Commission for Higher Education, Department of Education

PHILIPPINES	Prof. Ifor Solidum Acting Assistant Director, Foreign Service Institute, Ministry of Foreign Affairs
	Atty. Pio P. Frago Director, Human Resource Development Office, University of the Philippines; Chairman, Council on Training and Development
SINGAPORE	Mr. Tan Keng Jin Director, ASEAN Division, Ministry of Foreign Affairs
	Dr. Gan See Khem Senior Lecturer, School of Management; Head, Human Resource Management Unit, National University of Singapore
THAILAND	Dr. Chira Hongladarom Executive Director, Human Resources Institute, Thammasat University
	Ms. Pratanporn Thaviphoke Director, Social, Cultural & Information Division, ASEAN Office, Ministry of Foreign Affairs
	Dr. Atchana Wattananukit Assistant Professor, Faculty of Economics, Thammasat University
UNITED STATES OF AMERICA	Mr. David Allen Special Assistant to Pacific Basin Affairs, Department of State
	Mr. G. Feeney Assistant Director, Population Institute, East-West Center
ASEAN Secretariat	Mr. Djoko Soejono Director, Bureau of Socio and Cultural Affairs

(2) Japanese Participants

Mr. Hiroshi Ohta
Deputy Director-General,
Economic Cooperation Bureau,
Ministry of Foreign Affairs

Mr. Kenzo Oshima
Director,
Technical Cooperation Division,
Economic Cooperation Bureau,
Ministry of Foreign Affairs

Mr. Katsuhide Kusahara
Director,
International Science Division,
Science and International
Affairs Bureau,
Ministry of Education

Mrs. Mitsu Kimata
Director,
Overseas Cooperation Division,
Human Resources Development Bureau,
Ministry of Labour

Mr. Masaji Takahashi
Director,
Planning Department,
Japan International Cooperation Agency

Mr. Masao Hasegawa
Director, Institute for
International Cooperation,
Japan International
Cooperation Agency

Mr. Yuichi Katsuya
Director,
Program Department,
Japan Society for the Promotion
of Science

Prof. Hiroshi Inose
Faculty of Engineering,
The University of Tokyo

Prof. Ryokichi Hirono
Faculty of Economics,
Seikei University

Prof. Takeshi Yanagisawa
Faculty of Engineering,
Tokyo Institute of Technology

ANNEX B

Opening Speech

by

Madame Mayumi Moriyama

ANNEX B

OPENING SPEECH BY MADAME MAYUMI MORIYAMA, PARLIAMENTARY VICE MINISTER FOR FOREIGN AFFAIRS

Distinguished delegates, ladies and gentlemen, good morning.

It is my great honour and pleasure to extend, on behalf of the host Government, our most warm welcome to all the distinguished delegates from overseas. Represented here are the countries of ASEAN, Papua New Guinea, Fiji, Australia, Canada, New Zealand and the United States, all of whom are our close friends and partners, and Japan. I welcome you all and I also wish to warmly welcome Mr. Djoko Soejono from the ASEAN Secretariat.

I think this is a unique gathering in the sense that it addresses jointly, in a conference style, a project contained in the Immediate Action Programme adopted in July 1985 in Kuala Lumpur. Most other projects in the Programme are being dealt with in a different fashion. And that, I think, makes this gathering not only a unique experience but a significant event and an interesting development in our common effort to promote ASEAN/Pacific cooperation.

It has been pointed out that human resources development is very important for supporting the sustainable development of developing nations in various forms. I myself have visited many countries in the developing world -Asia, and most recently Africa- and have seen for myself many efforts that are made by these countries for their social and economic development. I am convinced that human resources develop-

ment indeed provides solid foundation for nation-building. This has become today a widely shared recognition in many countries, especially in the ASEAN and Pacific region. This is where the fastest growth in the world is taking place.

That is why, at the ASEAN Post Ministerial Conference last July, Foreign Minister Abe strongly supported the initiative of ASEAN, especially of Foreign Minister Mochtar of Indonesia, for human resources development as the first priority project to be undertaken for ASEAN/Pacific cooperation.

Mr. Abe not only gave his ready support to the ASEAN initiative but he also pledged Japan's cooperation for 15 out of the 32 projects appearing on the Immediate Action Programme. Japan has been consulting with ASEAN and other countries concerned as well as the ASEAN Secretariat to implement these projects. Progress so far achieved is still modest but an encouraging one, and we shall continue in our efforts to ensure that these projects for which we pledged our cooperation are fully implemented.

One of such items on the list is the project No. 25 - Joint Study. This was co-proposed by the USA, Australia and Japan. If I understand correctly, Joint Study is intended to consider, among other things, various possibilities for some kind of functional, effective linkages or networks in the context of training and educational undertakings, which could promote human resources development in the interest of all countries of the ASEAN/Pacific region.

Unlike other items on the Immediate Action Programme, the exercise involved in Joint Study would appear somewhat abstract, conceptual, and perhaps more difficult to deal with. This is so, given the great

diversity in cultural, political and social systems and the different levels of economic development of countries in our region. But at the same time, if we are successful in our attempt, I believe we can look towards new possibilities and new horizons. That is why I would very much hope that this exercise would yield positive results on which further progress can take place.

It is said that the 21st century will be the age of the Pacific. Whether this vast region of ours could really become the global centre of dynamic development will depend on our will and action, especially in the next 15 years. Therefore I think it is useful and meaningful to hold this kind of exercise through Joint Study now. The UNDP and some other international organizations are taking up human resources development as one of their main programmes next year, which is also an encouraging development.

So let me express my hope that your discussions will bear positive fruit and that they will make useful contribution to the cause of better understanding and promotion of further cooperation in our region.

Finally I hope that our guests from overseas will enjoy their stay in this country, although it is short.

Thank you.

ANNEX C

Summary of Country Reports

ANNEX C

SUMMARY OF COUNTRY REPORTS

Country Name	General Points (Principles, Approaches, Scope)	Specific Points (Programmes, Activities)	Other Relevant Suggestions
Australia	1. Principles 1) Existing institutions serve as a basis 2) To be flexible, modest and practical so as not to detract from ASEAN's institutional role 3) Existing ASEAN Secretariat functions as a contact and coordinating point between dialogue countries and ASEAN members for various linkages proposed 4) To relate linkages contemplated to other existing S.E. Asian regional activities, e.g. AIT and SEAMEO 2. Other important points 1) To identify priority areas/participating institutions and examine the best ways for implementation 2) To define HRD broad enough to encompass not only institutional or academic type training but also research and teaching 3) To include not only governmental activities but also inter-institutional linkages between academic and other training institutions	1. Expansion of Australia's ongoing regional cooperation, i.e. ASEAN-Australia Economic Cooperation Programme (AAECP) so as to cover some other Pacific Island countries, in selected projects 2. Involvement in approved APC-HRD Immediate Action Programmes 1) Already initiated 3 projects (No.13, 17 and 18) and will provide additional support to No.13 2) Intends to participate in No.14 as a follow-up 3) The CSIRO and ACIAR will provide support to No.16 4) Will also consider limited participation in other appropriate projects, under the APC-HRD programme 3. Australia proposes 20 possible course areas to be included in the HRD Network on a cooperative basis	1. Favoured approach - ASEAN working groups 1) Identify programme areas in which non-ASEAN technical experts participate, and 2) Seek approval at the political level (i.e. through relevant ASEAN Committees and the Standing Committee); Then, ASEAN working groups and sub-committees arrange non-ASEAN participation at the project level 2. Initially, the Australian Development Assistance Bureau could serve as a contact and reference point for Australia 3. Not require extensive new resources 4. Not a large coordinating institution Practical cooperation. Taking account of potential sensitivity of some aspects of cooperation 5. Foster mutual cooperation including reciprocal access to institutions
Fiji	Objectives of the Fiji Government 1) To facilitate efficiency and economy in the public service through training and development of officers 2) To promote through appropriate training the localization of expatriate positions within the private and public sectors 3) To satisfy the national growth and natural wastage requirements by facilitating the supply of qualified manpower for both the public and private sector needs	Existing programmes: 1) In-service training related to HRD: Training courses/On-the-job-training/Job rotation/Delegation/Acting appointments/Interchange schemes/Others 2) Pre-service-training 3) The University of the South Pacific - Ties with universities abroad - M.Sc. Scholarship - Endowment Fund for HRD 4) Youth participation in development and training for employment	HRD machinery of Fiji Government: 1) The Public Service Commission coordinates for national manpower planning 2) The Fiji National Training Council determines manpower training needs, and implement trainings

Country Name	General Points (Principles, Approaches, Scope)	Specific Points (Programmes, Activities)	Other Relevant Suggestions
Indonesia	Inter-institutional linkages 1. Type of organization involved 1) Universities/institutes 2) Foundation 3) National cooperation agencies (i.e. JICA, CIDA) 4) International/multinational cooperation agencies (i.e. ILO, UNDP) 2. Sharing of genuine common interest between the parties involved for effective institutional linkages	1. Substance of cooperation 1) Communication and information exchange 2) Participation in meetings/seminars 3) Training/course work 4) Library research 5) Research including certification/ testing previous research findings 6) Provision of opportunities for research guidance and counsel 7) Provision of institutional affiliation for expatriate faculty member doing research 8) Joint research projects 9) Development of teaching material/ teaching aids 2. The establishment of 1) HRD information depository and dissemination centres and/or 2) Centres for coordination and planning of HRD programmes at various level would be supportive	1. Duration of cooperation: on an ad hoc, short-term basis, single year or multi-year basis 2. Arrangement of cooperation 1) How many parties 2) Which level of institution 3) What source of funding 4) What sponsorship could/should be involved? 3. Many institutions of higher learning in the ASEAN region still have to cope with the problems of 1) Institutional development 2) Insufficient operation fund
Japan	1. Two different types of existing HRD cooperation I) Cooperation in educational and scientific fields 2) Technical cooperation 2. Principles suggested for future linkages 1) To mobilize and utilize maximum existing institutions 2) To be flexible in programme implementation 3) To benefit all ASEAN/Pacific countries 4) To proceed on a basis of practical gradualism 3. Two approaches to HRD linkages are considered; 1) Institutional approach 2) Programme-oriented approach	1. Expansion of existing HRD cooperation in educational and scientific fields 1) Bilateral scientific exchange - the Core-University system - Ronpaku (Dissertation Ph.D) Programme 2) Multilateral exchange through UNESCO, etc. 2. Expansion of existing HRD technical cooperation 1) Bilateral cooperation - ASEAN HRD Centre Projects - International seminars, symposia, etc. - Overseas vocational training co-operation 2) Multilateral cooperation - Asia and the Pacific Skill Development Programme (APSDEP) - APDC Programme on Human Resources Development and Mobilization	Phased implementation of programmes - Phase I with focus on increased exchange of data and information - Phase II with focus on increased exchange of people

Country Name	General Points (Principles, Approaches, Scope)	Specific Points (Programmes, Activities)	Other Relevant Suggestions
		3. Some possible programme areas for HRD linkages 1) Middle management and supervisory development 2) Productivity development 3) New energy development/energy saving methods 4) Biotechnology/tropical farming 5) Tropical diseases/animal diseases 6) Software industry 7) Telecommunication	
Papua New Guinea	Expectations for the network 1) To expand the scope for our existing links with others and establish new ones 2) To benefit and assist each other through the promotion of HRD network	1. Status of HRD in Papua New Guinea 1) Higher education Univ. of Papua New Guinea Papua Univ. of Technology 2) Vocation training 3) Staff development and training within the government 4) Pre-employment technical training 5) Bilateral agreements with overseas aid donors for academic staff training	For the promotion of nationalizing, co-ordinating and evaluating Higher Education programmes and institutions, the government established the Commission for Higher Education in 1983.
Philippines	1. Two approaches for the network are considered; 1) Institutional approach There are political and bureaucratic constraints regarding its implementation 2) Programme-oriented approach This could precisely be the rationale and basis for the creation of a network linking the institutions 2. Principles for programme-oriented approach 1) In the form of non-obligatory participation 2) Each institution could take the initiative in its participating field 3. The principle of flexibility in the light of existing practical limitations must be observed	Possible technical areas and institutions for APC-HRD 1. Univ. of the Philippines Institute of Small-Scale Industries in the area of entrepreneurship and management for small-and medium-scale industries 2. The Philippine Ports Authority Port Personnel Training Centre in the area of cargo handling and port equipment operation and maintenance 3. The Transport Training Centre of the Univ. of the Philippines in the area of traffic engineering, traffic management and transportation planning	1. These two approaches are not mutually exclusive 2. As for the content of programmes the listing is far-ranging and could subsume many more activities 3. The "core-university system" programme is laudable. It could, perhaps, expand the 'fields' to include the disciplines in the social sciences

Country Name	General Points (Principles, Approaches, Scope)	Specific Points (Programmes, Activities)	Other Relevant Suggestions
		4. The Natural Resource Management Centre of the Ministry of Natural Resources in the area of remote sensing technology and applications to natural resources management.	
Singapore	Focus of HRD in Singapore involves two dimensions. Firstly; the development and acquisition of technical knowledge and skills at the tertiary, polytechnics and vocational institutional levels. Secondly; human resource management in general, and good human relations in particular	Existing manpower development programmes: 1) Priority manpower development areas under SDF: technical skills/computer-related skills/management and supervisory skills/craft skills/specialist professional skills/further education programmes/product design/research and development skills/company-wide productivity improvement programmes/ BEST programmes 2) Manpower development programme areas for the 1980s: skilled, technical and professional manpower training in terms of engineers, graduates, technicians and skilled workers 3) Programmes related to productivity improvement - National Productivity Board 4) Programmes under the Human Resource Management Unit at the National University of Singapore	Followings are major machinery instrumental for economic restructuring to bring about the nation's "second industrial revolution": NWC/SDF/NPB/EDB(Training Centres and institutions)/others
Thailand	HRD should be viewed as an attempt to survive in rapidly changing world economy for which productive partnership between the government and the private sector has the utmost potential for assisting the development of a nation	1. Existing training and educational Organizations and Programmes for HRD cooperation - AIT/Human Resources Institute, Thammasat University/Faculty of Economics and Faculty of Commerce and Accountancy, Thammasat University/ Proposed/Centre for Transnational Corporations and Foreign Investment, Thammasat University/GIBA, Chulalong-korn University/ASEAN Scholarship for Graduate Studies in Preclinical Sciences (Life Sciences), ASEAN Agricultural Development and Planning Centre/ECOT/Japan-Thai cooperation in Promotion of Science - JSPS/Other Scholarships	1. A national focal group should be set up to take major role in executing the programme at the national and regional level for programme coordination, in each country 2. Presently, a focal point lies in a core committee designed to coordinate various private and public agencies, institutes or organizations, in the areas of HRD, in Thailand

Country Name	General Points (Principles, Approaches, Scope)	Specific Points (Programmes, Activities)	Other Relevant Suggestions
		2. International Conference on "Human Resources Development: Concept, Policies, Needs and Cooperation in the Region", in Thailand, in March 1986 as an immediate project. 3. Intermediate projects areas 1) Research & Development Project (R & D) 2) Research 3) Training 4) The ASEAN-Pacific Centre for Technology Transfer 5) Natural Resource Management	
U.S.A.	I-A 1) The development of a cooperative network of key Pacific educational institutions (as a central component of the HRD "intermediate programme") 2) Two broad categories can be identified; Universities - University Network Training/Development institutes - Training Institute Network * * * * * * II-A The role of private sector in APC-HRD	I-B Functional activities are; 1) The exchange of students, faculty and researchers 2) Cross recognition of credits 3) Development of joint academic programmes 4) Joint research 5) Conferencing 6) Development of special courses 7) Data sharing * * * * * * II-B HRD cooperation might draw usefully on; 1) Business Community 2) Regional Universities, development and training institutions 3) Foundations 4) Non-governmental regional organizations	I-C 1. Approval is needed at the HRD SOM and more formally at the 6 + 5 Ministerial 2. One or more meetings should subsequently be held to decide policy and implementation 3. The East-West Centre is one possible venue 4. Such meetings might also include invited representatives of interested regional research organizations and other appropriate private sector groups * * * * * * II-C Organizations involved as examples; IBM, Citibank, American International Group, US companies, AIT, AIM, Private foundations, PECC, PSA.

ANNEX D

Australia's Country Report

ANNEX D

HRD NETWORK

General Principles

Australia supports the concept of an ASEAN-Pacific Cooperation Program in Human Resources Development (APC-HRD) including the HRD Network.

We recognize that full account needs to be taken of those aspects of APC-HRD which have aroused sensitivity, and that existing institutions should remain the basis for its implementation. The emphasis in implementation should be on flexible and practical procedures which do not detract from ASEAN's institutional role. We believe the ASEAN Secretariat should continue to provide a point of contact and coordination between dialogue countries and ASEAN members, while individual countries organize their own APC-HRD proposals.

Australia sees value in relating APC-HRD activities to other existing Southeast Asian regional activities such as the Asian Institute of Technology and SEAMEO.

Subject to the outcome of discussions on this issue with the ASEAN countries we propose building on the ASEAN-Australia Economic Cooperation Program (AAECP) of ongoing regional cooperation activities by providing additional resources to cover some participation by Pacific Island countries (PICs), in selected projects where ASEAN-PIC cooperation in HRD is seen by all concerned to be appropriate. Separate funding has been identified for this purpose.

Some ASEAN bodies initiated under the AAECP such as the ASEAN Food Handling Bureau have benefitted from collaboration and cooperation with other dialogue partners. It would be within the spirit of the APC-HRD program to find a practical way to involve experts from dialogue countries and PICs in further cooperation of this sort at the project level. One approach we would favour would be for ASEAN working groups to identify possible areas of participation in their activities by non-ASEAN technical experts, and to seek approval at the political level (i.e. through relevant ASEAN Committees and the Standing Committee) for such participation. Provided such approval is forthcoming, the ASEAN working groups and subcommittees could then assume the responsibility for arranging non-ASEAN participation in their activities at the project level.

We believe that in this way the whole region can benefit from the further sharing of resources in cooperative ventures which have been proven successful within the ASEAN region, without disturbing existing institutional frameworks.

Projects already Implemented

Australia has already initiated 3 projects approved by the ASEAN Foreign Ministers in July 1985 for implementation under the APC-HRD Immediate Action Program as follows:

No 13: Training Needs Survey for Regional Pilot Plant Training Institute (RPTI) at King Mongkut's Institute of Technology (KMIT) Thailand. An initial survey was carried out by a KMIT staff member visit to the South Pacific which revealed an interest in the RPTI proposal.

No 17: ESCAP Women in Development Management Workshop. ESCAP has received funds for a workshop now scheduled for early 1986 at the APDC, Bangkok.

No 18: Support for 12 ASEAN delegates attendance at ANZAAS Festival of Science: ASEAN Interaction in Melbourne on 28 August 1985. Other sources of support were arranged for South Pacific islanders participation.

An outline of activities in each of these projects has been supplied to the ASEAN Secretariat and can be made available to this meeting if required.

Other Australian Involvement in the Immediate Action Program

Additional support for the RPTI at KMIT will be supplied under project #13 for a training course in fermenter design from 19 May to 27 June 1986. This course is to provide an opportunity for further assessment of the interest of ASEAN and Pacific Island countries in the proposed Regional Pilot Plant Training Institute.

Australia reaffirms its intention to participate in the "Seminar on HRD: Concept, Policies, Needs and Cooperation in the Region", (Project #14) which Thailand has proposed hosting early in 1986. Such a seminar could provide an opportunity to follow-up matters raised here in Tokyo and could be particularly useful if supported by all regional countries involved in APC-HRD.

The Tropical Pastures Research Network (Project #16) to be supported by Australia under the APC-HRD will also receive support from the Australian CSIRO and ACIAR. The network will cover research

institutions in the Philippines, Thailand, Malaysia, Indonesia and Fiji from 1985-88 at an estimated cost of A$630,000.

Australia will also consider limited participation where appropriate in other projects proposed under the APC-HRD program.

HRD Network

We propose supporting training under the APC-HRD Network for participants from PICs and ASEAN countries to attend courses in the region, including ASEAN countries, and the provision of fellowships to Australia.

Australia provides third country training awards on a bilateral basis to enable ASEAN and South Pacific nationals to undertake training in other developing countries. The major criteria for such awards are that:

- the training is of a developmental nature.
- it is of relevance and appropriate to the recipient country.
- adequate mechanisms exist to administer the awards.

We are happy to discuss at this meeting which courses and institutes in Australia should be included in the HRD Network. Courses are available for overseas students in the fields of:

Administration

Agriculture

Agricultural Economics

Computing Studies

Economics

Education

Entomology

Food Technology

Forestry

Geology

Geophysics

Health Studies

International Law

Mining and Mineral Technology

Natural Resources and Environmental Studies

Nuclear Science

Nursing

Transport Economics

Veterinary Science

Biotechnology

Details of Australian tertiary institutions offering these courses are provided as an attachment to this paper.

In order for networking to be effective, there is a need for the region as a whole to concentrate on the identification of priority areas in which training is required. There is also a need to examine the best ways in which this training can be achieved on a co-operative basis.

We would see as a central element of this initiative the identification of training and research priorities and the identification of the appropriate institutions through which they can be developed. From this will follow ideas on how networking might proceed in practice.

We do not believe that this process or what flows from it is likely to require the allocation of extensive new resources. Most of the infrastructure required is already in place. A substantial impact can

be achieved through a re-identification of priorities and a modification and re-allocation of resources to meet those priorities.

We believe that it would be desirable to commence in a modest way: but through developing a scheme which might be built upon progressively in future. We do not wish to see the establishment of a large networking institution which would have a coordinating role or which would have executive authority. The emphasis should be on practical co-operation, achieved through developing awareness of common interests, and taking account of the potential sensitivity of some aspects of this new form of cooperation.

We would also like to lay stress on the co-operative nature of this venture. To this end we believe that we should not be defining Human Resources Development too narrowly to limit the program to institutional or academic type training. It should be broad enough to encompass the possibility of research and teaching. We would certainly wish to see the possibility of some Australians being involved in the programs established under the scheme - as students, researchers or academics.

Neither do we believe that the scheme should be confined purely to governmental activities. We believe it would be highly beneficial if it can develop inter-institutional links which might foster stronger co-operative relationships between academic and other training institutions, for example, through exchanges of researchers or teachers, or through promoting sabbatical arrangements, etc.

Australia also supports the principle of fostering "centers of excellence" in the region. There are already many fine institutions of this nature. We should seek to utilize them more fully and effectively.

The Australian Development Assistance Bureau could assist by serving as an initial point of contact and reference for Australia.

COURSE	INSTITUTION

1. ADMINISTRATION

. Graduate Diploma in Administration	Canberra College of Advanced Education

One year course designed for those making their careers in the public or private sector with emphasis on development administration.

. Advanced Administration	Australian Administrative Staff College

The course of 6 weeks provides the experienced senior administrator with the opportunity for critical study of the fundamental principles and practice of management.

. Master of Social Sciences (Admin.)	University of Tasmania

One year full-time coursework Masters Degree which provides a grounding in the key elements of policy-making, policy analysis, public sector planning and administrative theories and government. Candidates have a choice of an elective from development administration, social administration or public administration plus a research project within the area of the elective.

2. AGRICULTURE

. Master of Agricultural Science (Soil Science, Plant Pathology)	University of Adelaide (Waite Agricultural Research Institute)

2 years research program; overseas students normally undertake a 1 year qualifying course.

. Graduate Diploma in Agricultural Extension	Hawkesbury Agricultural College

One year full-time course which offers professional training in applied science, group leadership, education, personal development, counselling and consulting.

. Master of Science in Agriculture Animal Science	University of New England

An 18 months program by coursework and research for careers in industry, development, extension, teaching or research; aimed to develop knowledge and skills in animal science on a broader basis than can usually be attained by research training only.

The course includes special units for tropical and developing countries.

. Diploma in Tropical Agronomy — University of Sydney

One academic year for graduates in agricultural science or plant science from tropical developing countries engaged in research, extension or tertiary teaching who wish to strengthen their command of agronomy.

. Master of Agriculture in the field of Tropical Agronomy — University of Sydney

The two year Masters degree course has the same coursework as the Diploma plus a more substantial thesis project to be completed in one year. There is provision for Masters candidates to carry out the thesis research project in their home country if feasible and appropriate.

3. AGRICULTURAL ECONOMICS

. Diploma in Agricultural Economics — University of New England

One year full-time course to add further specialized training in Agricultural Economics to those with existing degrees, especially in commerce, economics and agriculture.

. Grad. Dip. in Agricultural Economics — University of Sydney

One year full-time course of specialized study in agricultural economics - course work oriented.

. Master of Economics (Agricultural Economics) — University of New England

1.5 - 2 years full-time study for graduates, administered by the Faculty of Economic Studies but students take agriculture as the main interest of their course work and dissertation.

4. COMPUTING STUDIES

. Graduate Diploma in Computing Studies — Canberra College of Advanced Education

1 year full-time course for graduates with at least one year's tertiary mathematics, designed to equip candidates with modern skills in computing.

5. ECONOMICS

. Master of Economics (Development) — University of New England

1 year to 18 months course dealing with modern frames of analysis to equip students for development planning work. Core program: growth and development theory, international economics of development, money and finance in economic development, project appraisal for developing countries.

6. EDUCATION

. Diploma in Development Education — Macquarie University

1 year minimum, 2 year maximum full-time study to promote professional development of candidates committed to processes of educational change in developing countries.

7. ENTOMOLOGY

. Master of Science (Entomology) — University of Queensland

1 year full-time research covering systematics, medical and veterinary entomology, economic entomology, applied ecology and pest management.

8. FOOD TECHNOLOGY, FOOD SCIENCE

. Graduate Diploma in Food Technology — University of NSW

1 year full-time course of formal lecturers and lab work at undergraduate and graduate levels.

. Master of Applied Science in Food Technology — University of NSW

1 year full-time course dealing with the study of theoretical and applied aspects of the science and technology of foods with principal interest in Chemistry, Biochemistry, Microbiology, Physiology Nutrition and Chemical Engineering.

. Graduate Diploma in Food Science — Hawkesbury Agricultural College

1 year full-time course to equip students with the flexibility needed to respond to the increasing rate of change in food technology.

9. FORESTRY

. Master of Science (Forestry) — Australian National University

1 year full-time degree covering course work and original research in the field of Forestry.

. Master of Science (Forest Management)

1 year full-time course to train Australian and overseas students for future administrative or research work in the field of Forest Management.

10. GEOLOGY

. Master of Science — University of Adelaide

1 year full-time course where students may work on an approved topic within the fields of mineralogy and petrology, ore genesis and ore micrology, palaeontology, stratigraphy and structural geology.

11. GEOPHYSICS

. Postgraduate Studies — University of New England

1 year minimum, 4 year maximum study.
Candidates for M.Sc or Ph.D may work in any field where suitable facilities are available. A strong background in tertiary level mathematics is essential.

12. HEALTH STUDIES

. Graduate Diploma in Health Science — Western Australian Institute of Technology

One year course work for health professionals.

. Master of Applied Science (Health Science) " "

One year course work as for Graduate Diploma Health Science plus one year for thesis and further course work. Study streams include: health services evaluation and research: education: health administration and advanced specialization (e.g. occupational health etc.).

. Postgraduate Diploma in Tropical Public Health — Commonwealth Institute of Health, University of Sydney. (Formerly the School of Public Health and Tropical Medicine).

One year course work for graduates and non-graduates with appropriate experience in the health field subject to approval by the Faculty of Medicine.

. Degree of Master of Public Health — " "

One year course for graduates based on work as for Postgraduate Diploma in Tropical Public Health plus a thesis based on candidate's work in own country to be submitted six months after return home.

13. INTERNATIONAL LAW

. Diploma in International Law — Australian National University

1 year full-time course dealing with International Law, International Organizations, Principles of International Economics, International Relations and Political Aspects of International Organizations.

. Masters in International Law — Australian National University

1 year full-time course where, in addition to course work units for Diploma of International Law, students complete additional specialist course units: International Transport and Communications Law, Natural Resources and Environmental Law, Law of the Sea, Legal Aspects of the International Trading System and submit a 15,000 word dissertation.

14. MINING AND MINERAL TECHNOLOGY

. Master of Applied Science (Mineral Exploration) — University of NSW

1 year full-time course of specialized training for geologists, geophysicists, geochemists, and mining engineers in modern methods of exploration for metallic mineral deposits. A strong background in tertiary level mathematics is required.

. Graduate Diploma in Mineral Science — Murdoch University Western Australia

A one-year full-time program for graduates in chemistry, metallurgy and related sciences to broaden their knowledge of the mineral industry. Diploma awarded on a research project and report on a topic related to the mineral industry. Research topics from pyrometallurgy, hydrometallurgy, chemical mineralogy, analytical geochemistry, electrochemistry, solvation of ions and solvent extraction.

15. NATURAL RESOURCES AND ENVIRONMENTAL STUDIES

. Master of Natural Resources Management — University of Western Australia

2 years full-time course providing an understanding of major problems in the management of natural resources and environment, and the development, acquisition and application of skills for their management.

. Master of Environmental Studies-Land Use — Griffith University

Concerned with physical, economic and social factors which affect land use, and ways in which planning procedures can contribute to environmental management.

16. NUCLEAR SCIENCE

. Australian School of Nuclear Technology

Courses in peaceful uses of Nuclear Science for graduates and nongraduates.

17. P.G. NURSING

. Graduate Diploma in Nursing Administration — Lincoln College of Advanced Education

1 year full-time course to prepare experienced professional nurses for responsibilities as senior administrators of nursing services within hospitals and other health agencies.

. P.G. Courses in Health Studies — Sturt College of Advanced Education

Diploma of Applied Science (Community Health Nursing). 1 year full-time course to prepare registered general or psychiatric nurses for practice in a variety of community health settings.

. Graduate Diploma in Rehabilitation Counselling — Cumberland College of Health Services

A one year full-time course for those concerned with assisting disabled or disadvantaged persons to develop their abilities towards settlement or resettlement in the community.

18. TRANSPORT ECONOMICS

. Master of Transport Economics — University of Tasmania

Two years program for transport managers, transport administrators and those seeking a professional career in transport economics. Open to graduates in economics or commerce; graduates in other fields will be required to take essential economics courses.

19. VETERINARY SCIENCE

. Master of Science (Tropical Veterinary Science) — James Cook University of North Queensland

1 year full-time course, major components being pathology, microbiology, parasitology, animal nutrition and animal reproduction and management.

20. BIOTECHNOLOGY

. Graduate Diploma in Biotechnology — University of New South Wales

One year course for graduates in science-based courses with no previous training in Biotechnology.

. Master of Science (Biotechnology) — University of New South Wales

Minimum one year by course-work and research project includes advanced treatment of more important areas of biotechnology such as microbial process control and enzyme technology and is directed to use, conservation and recycling of resources with industrial application.

ANNEX E

Fiji's Country Report

ANNEX E

STRATEGIES AND PROGRAMMES FOR HUMAN RESOURCES DEVELOPMENT IN THE FIJI PUBLIC SERVICE

Introduction

As an independent island nation with a developing economy, Fiji relies to a large extent on its own people to provide the necessary impetus for improving the country's socio-economic life.

For every organization whatever its composition or purpose, the development of manpower in terms of skills, knowledge and experience is of crucial importance. On the national level it is critical and like any developing nation Fiji needs to develop and effectively utilize qualified manpower and the Government, as the largest employing authority, plays a major role in the national human resources development scene. The central government, in its interest in establishing and continuing proper standards of efficiency and economy in the public service, monitors growth and changing patterns within the Service and thus also the consequent demands on staff both in terms of the future and the scope of responsibilities. In addition, apart from the task of human resources development within the Service, the Government of Fiji also pursues a policy of national localisation and also attends to national growth and wastage requirements through sponsorships of qualified individuals from outside the public service.

Objectives

The Fiji Government's human resources development machinery has the following intention:

(1) to facilitate efficiency and economy in the public service through training and development of officers;

(2) to promote through appropriate training the localisation of expatriate positions within the private and public sectors; and

(3) to satisfy the national growth and natural wastage requirements by facilitating the supply of qualified manpower for both the public and private sector needs.

Systems

(a) National Manpower Planning

Since the 1960s national manpower planning has been part of development planning in Fiji and was first officially included in the Government's 1966 - 1970 Development Plan. The scheme used today in the public service involves the various civil service departments in the investigation and specification of manpower requirements. The public Service Commission as the central personnel authority in the Fiji public service coordinates.

(b) In-Service Training

In the Fiji Public Service we have established systems of human resources development of which the most commonly utilized are:

(1) training courses

(2) on-the-job training

(3) job rotation

(4) delegation

(5) acting appointments

(6) interchange schemes

(7) other.

(1) Training Courses

Needs are analysed, and based on this assessment, training programmes are organised to upgrade the performance of officers or to prepare them for future responsibilities. Officers are either trained locally at the Government Training Centre, other local vocational training institutions, or where the local facilities cannot offer appropriate programmes, officers are sent to appropriate overseas institutions e.g. in Australia, New Zealand, UK, USA, India, etc.

Courses are arranged according to the needs of the individual officers and their organisations. Local technical institutions cater mainly for technician level training and the University of the South Pacific offers academic training up to postgraduate level.

The Fiji Government Training Centre courses are conducted by local instructors who are experienced jobwise and who have gone through appropriate human resources development courses overseas. There are also top level training and development programmes from time to time which involve experts who are brought in as resource persons from recognized overseas institutions and organisations.

(2) On-the job training is a continuing process within the normal organisation work programme and all supervisors are expected, as they pick up weaknesses among staff, to ensure that remedial action is taken so that the correct methods are followed. Handled on-the-job this method involves explanation of new and correct techniques and guided experience.

(3) Job Rotation

Supervisors within public service units or sections plan out and arrange new experiences for their subordinates by rotation of duties. Allowing officers under this system the opportunity to try out new responsibilities promotes much needed versatility.

(4) Delegation or the spreading of duties of the senior officer to the subordinate is not only convenient as far as attention to tasks is concerned; it also provides the delegate experience at handling specific jobs, especially those of a higher level of responsibility. In time the subordinate will have acquired enough skill and knowledge to take up the higher position as soon as he is required to do so. Delegation happens at all levels of the public service and although mainly organised as a semi-formal arrangement is in fact a very deliberate development scheme.

(5) Acting Appointments

Apart from this being a 'filling-in' of positions during the incumbents' absence, it is also a training opportunity for the 'stand-in' who is normally the immediate subordinate. With guidance the acting appointee is developed through discharging the higher level duties.

(6) Interchange Schemes allow officers as in the job rotation discussed earlier to take up new but normally equal level responsibilities either at other public service departments and organizations or, within the private sector and external organizations. This option has only recently been developed and it is intended that eventually a formal system of interchange of personnel between the public and private sectors will be implemented. Indeed, one of the reasons for coming here is our desire to learn ways and means of development such a scheme.

(7) Other avenues for development are also available to our civil servants in visits, tours, meetings where they can acquire ideas that could be beneficial both to them and to their organisations.

(c) Pre-Service-Training

Manpower needs in relation to localisation of expatriate positions, growth and adjustment needs of the public service, other organizations, and natural wastage, are regularly appraised. Available resources, from the Government of Fiji, and aid from other nations, and also assessed to determine the volume of sponsorship. Opportunities thus worked out are then advertised. Normal shortlisting and interviews then follow before the trainee is selected and sponsored to attend institutions decided upon by Government. Trainees are sponsored for training at overseas institutions only if the desired programme of studies is not available locally.

(d) The Fiji National Training Council

The Council was set up through the passing of the Fiji National Training Council Act in 1973 and is, in summary, charged with the responsibility of co-ordinating, and where necessary implementing, the determination of the national manpower training needs and the provision of relevant training therefore. Its principal directors are appointees from the Government, trade unions and the private sector, of the Minister for Employment and Industrial Relations.

The work of the Council, its secretariat and technical staff, is funded by employers who pay a training levy of 1% of their basic salary bill. Employers who carry out or arrange training and education of their employees to standards set by the Fiji National Training Council are eligible for cash grants of up to 100% of the levy payment made by them.

For the paid employment sector of Fiji's economy, the introduction of the Fiji National Training Council Act was the principal in the creation of awareness of the need for human resources development.

(e) The University of the South Pacific (USP)

Ties with Overseas Universities

USP has strong ties to Australia Universities through the International Development Programme (IDP) formally the Australian Universities International Development Programme (AUIDP). This provides funding for secondment of staff to USP and USP staffing training in Australia. USP also has strong ties to the University

of Hawaii through the East-West Centre and the Pacific Island Development Project. On a much less formal basis USP utilises Universities in New Zealand, Japan and the United Kingdom for staff post-graduate training and for secondment of staff from these countries to USP using funding from sources such as Commonwealth Foundation for Technical Cooperation, Commonwealth Development Corporation, and New Zealand Aid.

M.Sc. Scholarship at USP

At present only three organisations provide regular funding for M.Sc. Scholarships at USP. These are:

(a) the Netherlands Government;

(b) the Canadian International Research and Development Corporation (IRDC);

(c) The Fijian Affairs Department of the Fiji Government.

The USP and Endowment Fund

This fund is particularly used for 'Human Development' purposes and it is of significance to note that the Japanese Government during the recent visit of the Japanese PM to USP promised $500,000 as a contribution to this fund for that purpose.

(f) Youth Participation in Development and Training for Employment

As one of the country's most valuable natural resources, Government has always aimed at initiating and maintaining youth participation in development and training for employment and responsible citizenship within the contexts of urban and rural life.

The Ministry of Youth and Sport was especially created to stimulate this development and generally look after the interests of youth in and out of school situation.

The informal training schemes in the rural areas, and the more formal training programmes run by institutions that cater for skills in urban areas, are basically geared towards encouraging self-reliance, self-sufficiency, community awareness and more importantly, responsibility.

The Department of Youth has a non-formal education section which looks after youth, sport, multicraft and adult education programmes. This section caters mainly for unemployed youths, and regularly conducts skills training programmes for both rural and urban youths, besides the numerous leadership training programmes.

ANNEX F

Indonesia's Country Report

ANNEX F

OPPORTUNITIES AND CHALLENGES FOR INTER-INSTITUTIONAL COOPERATION IN HUMAN RESOURCES DEVELOPMENT

An Indonesian Perspective

Introduction

Human resources management and development both at the macro and micro level present quite a number of problems to governments of many developing nations. Mindful of their responsibility to improve the standard of living of their people and to utilize its workforce effectively and efficiently, they are striving to improve education facilities and increase employment opportunities.

Due to differences in their historical development, the various means for human resources development are not equally available to countries within a region. Through a closer cooperation between institutions within and between regions, a higher degree of utilization of these means may be achieved. The continuously increasing degree of interdependency between nations is another reason for this cooperation.

Presently, Indonesia is in the second year of its fourth Five-year Development Plan. Human resources management and development both at the macro and the micro level are important programs in the plan. Universities and other institutions providing tertiary level education are a major source for high level manpower needed for the overall development of the country. Therefore they are given particular attention by the government in the allocation of development funds.

Since 1979, the Indonesian government has carried out a program to improve the quality of its higher education system by increasing the opportunity for faculty members to obtain second and third university degrees. To this end it has reorganized the education system, expanded the master and doctoral programs of the major universities, and made available quite a number of scholarships to faculty members of state universities who wish to continue their education. To a more limited extent these scholarships are also available to faculty members of private universities.

Furthermore the Indonesian government recently has obtained a World Bank loan to establish a number of inter-university centers (IUC) at four institutions: the University of Indonesia, the Bogor Institute of Agriculture, the Bandung Institute of Technology and Gajah Mada University. Each IUC offers training programs and provides research guidance and assistance to faculty members, and makes available its library and other facilities to them. At present there are sixteen IUCs, each covering a high priority field of study. This program, also known under the name World Bank XVII project, also provides scholarships to pursue advanced degrees abroad. The program, which is intended to serve all state universities, nationwide, has the objective of supporting programs at the master's and doctoral levels.

It is obvious that higher education development projects such as the one described above, require inter-institutional cooperation within a country and between countries. The establishment of an appropriate human resources development network will undoubtedly provide very useful support to these projects.

Inter-institutional linkages: observations and analysis

Institutions are established and managed by people who determine their objectives, fields of operations and interest, their priorities on the utilization of their resources and the set of constraints they choose to observe. An effort to establish linkages between institutions must keep this reality in mind.

Key institutional and program variables to be considered include:

1. Type of organization involved:

    a. universities/institutes

    b. foundations

    c. national cooperation agencies (i.e. JICA, CIDA)

    d. international/multinational cooperation agencies (i.e. ILO, UNDP)

    Each can take the role of

    (1) an implementing unit,

    (2) a funding agency,

    (3) an administrative unit, or

    (4) a coordinating body.

    Furthermore, each will have its own

    (1) set of objectives,

    (2) fields of interest,

    (3) set of priorities, and

    (4) set of organizational constraints.

    It is obvious that for a linkage to be really operational, some kind of "matching" between the institutions involved is required. When multiple organizations are involved, a measure of coordination will be called for. And to facilitate the two processes

the availability and accessability of relevant information is needed.

2. Arrangement of cooperation:

   Cooperative arrangements may vary according to:

   a. the number of parties involved (bilateral, multilateral)

   b. the level of institutions involved (inter-institutional, inter-governmental)

   c. source of funding

   d. sponsorship.

3. Duration of cooperation:

   Cooperation may be arranged on an ad hoc, short term basis, single year or multi-year basis.

4. Substance of cooperation:

   The substance of cooperation may include any or all of the following:

   a. communication and information exchange on

      (1) research findings,

      (2) research activities,

      (3) program offerings,

      (4) program development,

      (5) joint research opportunities

      (6) availability of resources.

   b. participation in meetings/seminars:

      (1) sharing of research findings

      (2) developing new ideas/concepts/approaches /techniques,

      (3) program design and development,

      (4) problem solving,

(5) developing bases for inter-institutional cooperation,

c. training/course work,

d. library research

e. research, including verification/testing previous research findings,

f. provision of opportunities for research guidance and counsel by senior faculty/research staff of host institution,
(note: items c, d, e, and f may be conducted within the framework of a "sandwich" degree program),

g. provision of institutional affiliation for expatriate faculty member doing research in host country,

h. joint research projects

i. development teaching material/teaching aids.

Taking the various variables into consideration we may be able to design alternative linkage patterns which may be used as models for establishing actual cooperation programs both on a bilateral or mutilateral basis.

The Indonesian experience

Throughout the years various human resources development programs at the higher education level have been implemented in Indonesia, with various degrees of success. Some of these projects were funded with domestic funds, others through bilateral agreements with governmental or private agencies of Asia or other countries in the Pacific region. Some projects are funded with loans from the World Bank or the Asian Development Bank.

For all intents and purposes every department of the Indonesian government has human resources development projects of various kinds,

levels, duration and substance. Some of these projects are conducted domestically, others have projects in which foreign institutions are involved in their implementation. Among these departments, the one with the largest domestic and foreign human resources development programs is naturally the Department of Education and Culture. Other Departments with substantial foreign training and education programs are the Department of Finance, the Department of Trade and the Office of the Minister for Research and Technology.

As the Department with the largest foreign human resources development program, the Department of Education and Culture also has the greatest variety in the kind of cooperative projects it is engaged in. In the following two sub-paragraphs several of these projects will be brought forward. The cases included represent a sample of the various types of projects, at the tertiary education level, to indicate the variety of these projects.

1. Linkages with Japanese agencies and educational institutions.

   At present the Japan International Cooperation Agency (JICA) is involved in various projects which are directly related to institutional and human resources development. One project which has been going on for some time is the provision of financial aid and technical assistance in the establishment of an inter-university center for forestry in Kalimantan which is connected with Mulawarman University. Two other Indonesian institutions are participating in this project: the Gajah Mada University and the Bogor Institute of Agriculture. This inter-university center provides facilities for research and training in forestry and closely related fields.

Another JICA project is one related to the establishment of the Engineering Polytechnic Institute in Surabaya. In this case the JICA provides funding and technical assistance for the building and operation of this school for middle level engineering manpower.

Another major cooperative arrangement with Japan is one project funded by the Japan Society for the Promotion of Science (JSPS). The implementation of this project is directly administered by the Directorate General of Higher Education of the Department of Education and Culture on the Indonesian side and by the JSPS on the Japanese side. In this project four Japanese "core institutions" are involved: Tokyo University of Agriculture, Tokyo Institute of Technology, Kobe University and University of Tokyo. On the Indonesian side there are three "core counterpart institutions": the Bogor institute of Agriculture, the University of Indonesia and the Bandung Institute of Technology. The fields covered under this cooperative scheme are: Agricultural Science, Medical Science, Engineering and Natural Science. Other institutions both on the Japanese and the Indonesian side are participating in the cooperative effort through the "core institutions". The program puts an emphasis on the exchange of scientist visits and joint research efforts and provides support to academic personnel who wish to obtain a doctoral degree from a Japanese university.

The Science and Technology Agency of Japan provides assistance to Pajajaran University for applied research in plant physiology under its Rikan project.

In the field of Japanese language, literature and history, the Japan Foundation has provided study and research fellowships and technical assistance to Pajajaran University and the University of Indonesia. An agreement in principle has been reached for the establishment of a Japanese Studies Center at Pajajaran University.

In the field of Management a linkage has been forged between the Institute of International Studies and Training at Fujinomiya and the University of Indonesia. The cooperative arrangement includes the provision of study and research fellowships and opportunities for visiting faculty at the Institute.

Preliminary discussions have also been conducted between the Foundation for Asian Management Development of Japan and the University of Indonesia.

2. Linkages with institutions in other dialogue partner countries.

In the late fifties some universities in Indonesia established "affiliation" relationships with universities in the United States. The University of Indonesia, for a number of years had an affiliation program with the University of California in Berkeley. This program covered the fields of Economics, Business Administration and Medicine. The part of the covering Economics and Business Administration was financed by

the Ford Foundation. It provided fellowships for young Indonesian faculty members to obtain advanced degrees abroad, and funds for seconding American faculty members to the University of Indonesia for one or two years. The program for Medicine which was financed from other sources provides opportunities for Indonesian faculty to do clinical studies at the University of California Medical Center in San Francisco or to do work at the Berkeley campus. Gajah Mada University had a similar arrangement with the University of Wisconsin for Economics and Business Administration as the ones in the same fields at the University of Indonesia. Likewise the Bogor Institute of Agriculture and the Bandung Institute of Technology, with USAID funding have been able to provide opportunities for advanced studies to quite a number of their faculty members. The "affiliation model" which was adopted by Gajah Mada University and the University of Indonesia was later replaced by a "consortium" set up which was also in effect for a few years. Of a somewhat different nature is the Midwestern Universities Consortium for International Activities which was formed a few years later. The consortium better known as MUCIA presently provides assistance in placement of scholarship recipients in American universities and to recruit faculty for placement abroad, among others to institutions included in World Bank Education Project IX (Gajah Mada University, Andalas University and the University of Indonesia).

The USAID also provides funding for human resources development projects of private educational institutions and to private industry for management education and training. Through the Canadian International Development Agency Indonesian universities have also received assistance for human resources development. One major project is the so called "twinning arrangement" between the University of Indonesia and Canadian universities within the framework of environmental manpower development in Indonesia.

The objective of the "twinning arrangement" is described as "to develop linkages between selected Indonesian and Canadian university environmental centers for the long-term enhancement of teaching, infra-structure for research and advisory services to government and public". The program which, including the preparatory phase will cover a period of six years, is planned to have the following operational components: joint research projects, joint seminars, exchange of staff and students, joint publications, staff training, the establishment of books and equipment for the joint programs.

Prior to the "twinning arrangement" with Canadian universities, with the assistance of the Australian Universities International Development Program (AIUDP) the University of Indonesia has also benefitted from a linkage with Griffith University in the field of environmental studies. Through this agency which since the end of 1984 was renamed the International Development Program of Australian Universities and Colleges (IDP), the University of Indonesia

has also received books and technical assistance to conduct courses in Australian Studies. Presently the feasibility of expanding the program to include a full-fledged master's level program in Australian Studies is being investigated.
Besides the University of Indonesia for a few years the IDP and its predecessor the AIUDP has also given assistance to four other Indonesian universities: Hasannudin University, Brawijaya University, Udayana University and the Institute for Teacher Education and Pedagogy in Semarang. Recently the IDP has expanded its assistance program to include five other universities: Mataram University, Jember University, Sebelas Maret University, General Sudirman University and Nusa Cendana University, thereby providing possibilities for linkages between the ten Indonesian universities and nineteen universities and forty-six colleges in Australia.

Summary and conclusions

In this paper an attempt has been made to identify operational variables which are involved in the implementation of human resources development programs, particularly those involving assistance from foreign cooperation agencies. A presentation of a sample of these programs, presently conducted or implemented in the past in Indonesia, is intended to give a picture of the shades of differences between the various programs. This paper has been written from the point of view of "the man in the field" and it therefore focuses on the operational rather than the policy formulation aspects of the problem.

Based on past experience "in the field" the following conclusions may be drawn:

1. To be truly effective, institutional linkages should be based on the sharing of genuine common interest between the parties involved, to the extent that the parties are willing to commit time and necessary resources to achieve the objectives agreed upon which constitute the basis for establishing the linkage. Establishing linkages for linkages sake is not likely to be very productive, and may even be counterproductive.

2. Organizational objectives, constraints and priorities and the extent of the availability of resources are important factors which determines the kind of projects the organization is willing to accept and join, and the degree to which it is willing to commit its resources.

3. Many institutions of higher learning in the ASEAN region still have to cope with the problem of institutional development both to improve and expand their programs and resources to meet current needs, and would be facing difficulties if they have to divert operational funds for purposes other than to fulfill these more immediate needs.

4. Despite the sharing of common interest, concerns and objectives, and the availability of equipment, physical facilities and human resources, the sufficient operational funds is a major impediment to the implementation of cooperative programs.

5. Within the ASEAN region there is a potential for sharing of resources for human resources development programs, which can be

readily realized with proper preparatory arrangements and the provision of the required additional resources.

6. Given the number of institutions, the variety of activities, programs, research projects and publications, the establishment of national, regional and interregional human resources development information depository and dissemination centers would be supportive to an effort to broaden the base of cooperative arrangements in human resources development. Information to be handled by these centers relates to seminars, training programs, research activities, unpublished papers and reports, publications, resource availability and other relevant information on human resources development activities within each country and region.

Considering the scope and variety of human resources development programs, their importance to national and regional development and the limitations in the availability of necessary resources for their implementation, the need may be felt to establish centers for coordination and planning of human resources development programs at various levels. In this context it may be useful to keep in mind that safeguards be established to prevent these centers from becoming bureaucratic impediments rather than facilitating agencies.

ASEAN-PACIFIC HUMAN RESOURCES DEVELOPMENT PROGRAM

Introduction

The Policy Direction Paper for an ASEAN-Pacific Human Resources Development Programme which was approved by the Ministers of ASEAN and the five Pacific dialogue countries defines human resources development as an essential component of any development strategy. It involves the development and utilization of manpower which are best achieved through training, education, research, information and scholastic exchange with a view to improving employment and income generation and supporting expanded economic activity. This includes those activities designed to enhance knowledge, skills and technology transfer.

Thus human resources development is a process of elevating the capacity of people to participate constructively and productively in the national development, a process of improving the quality of life.

Challenge for Developing Countries

Most, if not all, developing countries are confronted with a high population growth with the ensuing problems like providing employment opportunities and meeting various demands of the people for food, clothing, housing, medical care, educational facilities, etcetera. If not being handled properly, these problems could create social unrest and the stability of the country could consequently be seriously affected.

On the other hand human resources, being subject as well as object of development, could be transformed into valuable assets for the country.

Hence the challenge for the developing countries is how to take full advantage of the availability of their human resources and to turn them into potentialities that sustain their development efforts.

Inter-Relation and Inter-Action

Inter-relation and inter-action among countries and peoples have become more extensive and more intensive. This have brought about a situation of interdependency among nations in various aspects of life, especially within the same region.

To cope effectively with this common challenge, cooperation in human resources development is therefore most desirable.

As an ingredient of cooperation, coordination in establishing human resources development programmes constitutes an important mechanism to avoid social and economic wastages.

Purpose and Objectives

The purpose of the Programme is to build up the necessary knowledge and skills for further growth and development of the developing countries in accordance with their evolving requirements and the modernization of their economies.

The objectives of the Programme, as stipulated clearly in above-mentioned Policy Direction Paper, should be the following:

a. to enhance contacts and working relationships among countries;

b. to assist in developing strategic areas of human resources

development, based on the countries' needs and common interests;

c. to strengthen relevant existing institutions and programmes devoted to human resources development;

d. to identify and support national and regional needs and priorities, so as to contribute to self-reliance, growth and development;

e. to provide additional impetus for public and private sector cooperation in support of economic growth in the region;

f. to facilitate the sharing of experiences among the countries in respect of human resources development programmes.

Existing Programmes and Planned Projects in Indonesia

Recognizing the strategic significance of human resources development and being aware of the need for cooperation in this field, Indonesia has conducted a series of TCDC training programmes in various sectors of activities since 1980. The objectives of the training programmes are to broaden and improve the participants' professional knowledge and to develop solutions to common problems faced by developing countries by exchanging information and views. The list of the programmes appears as Annex A(not attached).

Pursuant to the decision of the Post Ministerial Conference in July 1984 regarding the launching of an APC-HRD Programme, Indonesia has identified a number of projects for that purpose, which appears as Annex B(not attached).

Conclusions and Recommendation

1. Human resources development is the answer to the common challenge faced by developing countries within the realm of the human dimension of their national development. Intensive inter-relation and inter-action of peoples and inter-dependency among nations within the region in various aspects of life makes inter-country cooperation imperative.

2. In the framework of cooperation, coordination in establishing human resources development programmes should be made a fixture of activities, so as to avoid social and economic wastages. For this purpose a regional coordinative mechanism should be set up, which should establish contacts and links with national centres of human resources development in the respective countries.

3. Areas of concentration should be established in each participating country, taking into account the strength and characteristics of the country.

4. In each participating country a Centre for human resources development should be established, with the main tasks of:

   a. coordinating the implementation of the national strategy for human resources development;

   b. planning and developing programmes of human resources development; and

   c. selecting and establishing centres of excellence according to the strength and characteristics of the country.

ANNEX G

Papua New Guinea's Country Report

ANNEX G

PAPUA NEW GUINEA'S COUNTRY REPORT

1. Background/Introduction

Papua New Guinea lies just to the north of northeastern tip of Australia. It comprises a large mountainous mainland and some 600 offshore islands. The total land area is about 463,840 square kilometres.

Administratively Papua New Guinea has adopted the Westmenester system. Nineteen provincial departments were created after a decentralised system was introduced in 1976.

Agriculture is the dominant economic activity in Papua New Guinea and contributes one-third to the GDP compared to 10.4 percent for mining and 9.3 percent manufacturing.

2. Status of Human Resources Development

As a developing country its policies on economic and social development in the last decade have been geared towards utilizing its human resources to meet stated goals. But with a population of 3 million which is sparsely distributed it has been a problem for the government to evenly distribute goods and services to its people. One of the common problems is that two-thirds of the adult population is illiterate thereby creating an educational gap between parents and their children. Of the 2.9 million citizens population, 385,000 of them are in the 15 -19 years age group. This represents the target of human

resources development. Unfortunately only 4 percent (15,000) of the target group has enrolled into some educational institutions.

Prior to 1967 institutions were established within government departments which basically were to meet the requirements of the respective departments. This seemed appropriate at that time but after careful consideration of development needs on the national level and also to consider it on a long term basis the Government decided to establish the University of Papua New Guinea in 1967 and the Papua New Guinea University of Technology shortly afterwards in 1968.

There are 64 higher education institutions throughout the country which are administered by 14 different ministries.

A total of 9,000 - 10,000 yearly enrolled in the various higher educational institutions.

In addition to the formal educational programmes the non-formal educational programmes are supplementing the manpower needs in the semi-skilled and skilled category. These are conducted in vocational centres where basic skills are taught to students at post grade 6 level. This is one major activity undertaken by the Ministry of Education to cater for the Human Resources Development _____ of post grade ex-students who cannot proceed to _____ Youth programmes have also been developed to assist youth mainly in urban centre. This programmes came about as result of Law and Order problem in the country and these measures were pursued to deter youths from taking up illegal activities. The government has been funding conventions camps and meetings to ascertain what positive steps would be undertaken to solve youth related problems and as a result youth centres have been set up which more or less pursue similar curriculum as vocational training centres.

Apprenticeship training is administered through the Ministry of Labour and Employment and caters for training in technical areas covering 4 years period. Apprenticeships are only given to declared trades as approved by the Apprenticeship Board of Papua New Guinea. Over the period June 1984 to June 1985 over 630 apprentices were registered. Of these 47 percent come from government departments while the remaining 53 percent are sponsored by the private sector.

Within the government Ministries there are divisions which have the specific function to co-ordinate Staff Development and Training programmes which are orientated to their own needs and requirement. Basically the main functions of the Staff Development Units are:

(a) Develop proposals, assess staff development needs of each department, maintain and improve standards of services in the country.

(b) Plan, co-ordinate and monitor administrative process of In-Service training programmes.

(c) Monitor selection of trainees for all levels of courses.

(d) Assess appropriateness and effectiveness of the In-Service courses and the implementations of localisation scheme against targets and recommend changes.

(e) Assess and make provisions for training of the clerical/ management task process of departments to upgrade skills and performances.

From the foregoing it can be seen that Human Resources Development has been concentrated on meeting departmental and sectoral requirements which unfortunately shows there is lacking coordinated efforts to develop human resources for achieving national goals.

Because of the abovementioned the government decided to pass the Higher Education Act in 1983 from which the commission for Higher Education was established. Its prime responsibilities would be to foster the development of a national Higher Education Plan which would be aimed at nationalizing, coordinating and evaluating Higher Education programmes and institutions. The commission for Higher Education is also responsible for administering the National Scholarship Scheme (NATSCHOL). Over 80 percent of total students enrolled in higher educational institutions are sponsored under this scheme. This is one important area in which the government has attempted to improve the national manpower needs.

Now that we have a body to coordinate and monitor activities of institutions, departments and other organizations as far as education and training are concerned the need to look outside of our own environment becomes equally important. We would expect to widen our scope and establish and expand from existing links with others that we already have. We believe through exchange programmes and through institutional links and more importantly through regional co-operation we all can expect to benefit and assist each other through the promotion of a Human Resources Development Network.

ATTACHMENT I

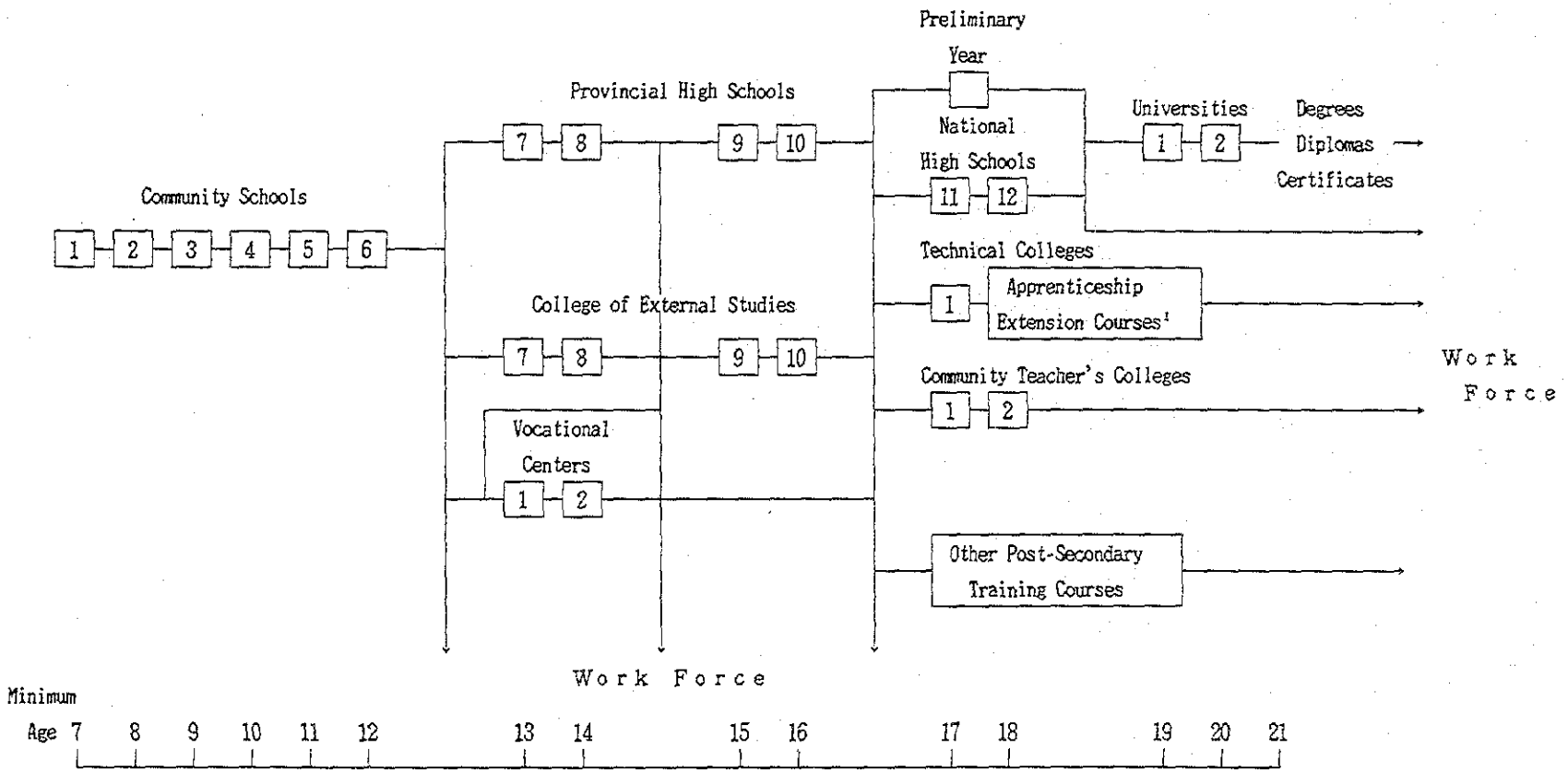
LIST OF INSTITUTIONS AND ORGANISATIONS INVOLVED IN HRD IN PAPUA NEW GUINEA

Administering Department Ministry or Agency	Type of Institution	No. of Institutions
1. Civil Aviation	Civil Aviation Training College	1
2. Culture + Tourism	National Arts School	1
3. Education	Community Teacher Training Colleges	9
	Technical Colleges	7
	Secretarial Colleges	2
4. University of Technology		1
5. University of Papua New Guinea	- Main Campus	1
	- Medical Faculty	1
	- Secondary Teacher Training	1
6. Forests	Forestry Colleges	2
7. Finance	Customs Training	1
8. Defence Force	Military Training	1
9. Health	Nursing Training	15
	Health Extension Officers	2
10. Justice	Correctional Services	1
	Legal Training	1
11. Mineral + Energy	Electrical Technicians (Electricity Commission)	1
12. Police	Police Training	1
13. Primary Industry	Agriculture and	4
	Fisheries Training	1
14. Public Service Commission	Public Service Studies	1

15.	Communications	Postal and Telecommunication	1
16.	Transport	Maritime Training	1
17.	Bougainvillea Copper Ltd.	Mine Training	1
18.	Joints Banks.	Banking	1
19.	Church and Mission Agencies	Theology and Evangelism.	5

ATTCHMENT II

Structure of the Education System
1983



ANNEX H

Japan's Country Report

ANNEX H

JAPAN'S COUNTRY REPORT

I. HRD cooperation with the characteristics of functional linkages

The government of Japan is conducting various cooperation programmes and projects with educational and training institutes of developing countries within the ASEAN/Pacific region, either on a bilateral or multilateral basis.

Major undertakings among them are (a) scientific exchange programmes under the Ministry of Education and the Japan Society for the Promotion of Science (JSPS), (b) technical cooperation under the Ministry of Foreign Affairs and the Japan International Cooperation Agency (JICA), and (c) cooperation in the field of vocational training under the Ministry of Labour. They are classified as follows:

1) HRD cooperation in educational and scientific fields

   i. Scientific exchange

      a. Scientific exchange under the Core University System

      b. Ronpaku (Dissertation Ph.D) Programme

         --- a. and b.are conducted under the Ministry of Education and JSPS.

   ii. Multilateral exchange through UNESCO, etc.

      a. Asia and the Pacific Programmes of Educational Innovation for Development (APEID)

      b. Regional Cooperative Programme in Higher Education for Development in Asia and the Pacific

      c. Regional Networks for Basic Sciences in Southeast Asia

d. Southeast Asian Ministers of Education (SEAMEO)

--- a. to d. are conducted under the Ministry of Education.

2) HRD cooperation through technical cooperation

a. ASEAN HRD Centre projects
Ministry of Foreign Affairs
Ministry of Labour
JICA

b. International symposia, seminars, etc.

c. Research cooperation

--- b. and c. are under the Ministry of Foreign Affairs and JICA.

d. Overseas Vocational Training Cooperation

e. Asia and the Pacific Skill Development Programmes (APSDEP)

--- d. and e. are under the Ministry of Labour.

These undertakings have been steadily expanding year after year with their principal and common purpose of developing and effectively utilizing human resources in the countries concerned, for the purpose of helping provide a self-sustaining foundation for their social and economic development.

II. HRD cooperation in educational and scientific fields

Being a member of Asia and the Pacific region, Japan attaches great importance to educational and scientific exchange with the countries of the ASEAN-Pacific region, and thus has been actively undertaking diverse forms of exchange with these countries.

Japan has steadily intensified its efforts to promote a variety of educational and scientific exchanges both through bilateral programmes

such as scientific exchange programmes under the "core university system" (see II-1 Scientific Exchange) and multilateral programmes in cooperation with UNESCO and SEAMEO. Today a wide range of exchange programmes are carried out in a considerable scale and scope. These programmes are highly evaluated for their contribution to the development of human resources in the countries of the region.

These programmes, involving systematic cooperation of universities and other educational and research institutions of the countries, are being effectively and successfully conducted in the region.

These programmes form functional linkages among universities or educational institutions. Therefore, it is important for these programmes to be further developed on the basis of joint efforts between Japan and other countries.

An outline of the existing programmes which Japan is administering or promoting for educational and scientific exchange with other countries in the ASEAN-Pacific region, is given below.

1. Scientific Exchange

Scientific exchange between Japan and developing countries is promoted mainly through the Japan Society for the Promotion of Science (JSPS). The exchange programmes include, among others, those under the "core university system" and the "Ronpaku" (Dissertation Ph.D) programme.

(1) Scientific exchange under the core university system takes place between Japanese universities and the universities of developing countries within the basic framework agreed upon by JSPS and its

counterpart implementing agencies. The actual implementation of the programme takes the following steps:

1) Each participating country organizes for each of the cooperative research themes a national network of a core university, cooperating universities and participating researchers;

2) The core universities, in consultation with cooperating universities, prepare proposals for annual plans of exchange within the allocated budget and submit them to JSPS;

3) The core universities implement their programmes of exchanges of scientists and joint research according to the approved plan and in close contacts with the cooperating universities.

Details of the on-going programmes under the core university system are shown in the Annex.

For the scientific exchanges to be truly effective, they should be able to assure:

- well planned and coordinated exchanges based on precise scientific needs;
- systematic exchanges that do not depend solely on the enthusiasm of individual scientists;
- continuous exchanges lasting for a long period, because it is impractical to expect immediate results from scientific research activities.

The core university system, which is based on the close contacts between the implementing agencies, the core universities and the cooperating universities, can be considered to be an appropriate mechanism to promote scientific exchange in a coordinated, systematic and continuous manner, without risking to be negatively influenced by personal interests or research conditions of individual scientists.

(2) Ronpaku programme

The Ronpaku (Dissertation Ph.D) programme is aimed at contributing to fundamental needs of junior researchers in developing countries. It

provides financial support and research advice to junior researchers who wish to obtain Ph.D degrees from Japanese universities. The unique feature of the programme is that the Ronpaku fellows obtain Ph.D by submitting dissertations without having to fulfill the requirement of course studies.

Under this programme, fellowship recipients conduct dissertation research under the joint supervision of both Japanese advisers and the advisers in their home countries. During the overall tenure of the fellowship of up to 5 years, the fellow is provided with support for repeated visits to Japan, each visit ordinarily lasting for two to three months. The Japanese adviser may be dispatched to the fellow's country, if it is deemed necessary.

The recruitment of new dissertation fellows for the Ronpaku programme is announced through the implementing agencies of developing countries and Japanese universities.

(3) Future plan

The accomplishments of scientific exchanges under the core university system and the Ronpaku programme were evaluated and highly appreciated at the ASEAN-Japan Conference on Scientific Cooperation held in Tokyo in 1983. Japan intends to further strengthen these scientific exchange programmes so that they can make greater contribution to the development of human resources in the region.

2. Multilateral Exchange Programmes through UNESCO, etc.

(1) Asia and the Pacific Programmes of Educational Innovation for Development (APEID)

APEID is regional cooperative programmes aiming at strengthening educational cooperation among UNESCO member countries in Asia and the Pacific. Under this programme the participating countries (25 countries at present) jointly plan, implement and evaluate diverse programmes which contribute to educational development in respective countries. These programmes are carried out in various forms which include: seminars and workshops; inviting and sending of experts as resource persons for seminars, workshops and training courses; providing experts with opportunities of training - during 1984 Japan sent 10 experts and accepted 108 experts for training - ; joint research and development activities; and "mobile training teams". The programme areas include: science education; educational technology; special education of handicapped children; teacher training; and cooperative studies relating to educational development.

The project "mobile training teams" is administered by UNESCO with fund-in-trust from the Government of Japan. Mobile training teams are organized in five programme areas, namely, educational technology, vocational and technical education, curriculum development, science education and special education of handicapped children, to participate as resource persons in national workshops organized in host countries participating in APEID. Each team includes a Japanese expert.

The UNESCO Regional Office for Education in Asia and the Pacific (Bangkok, Thailand) serves as secretariat office for APEID and

coordinates the entire programmes keeping close contact with the participating countries.

Every participating country has one or more Associated Centres. The Associated Centres in Japan are as follows:

- Japan Council of Educational Technology Centres (Educational Technology)
- University of Tsukuba (Vocational and technical education)
- Obihiro University of Agriculture and Veterinary Medicine (Vocational and technical education)
- National Institute for Educational Research (Curriculum development, science education, etc.)
- National Institute of Special Education (Special education)

Under APEID a regional structure for promoting education has been well developed for Asia and the Pacific region on the cooperative basis between the UNESCO Regional Office for Education in Asia and the Pacific in Bangkok and the Associated Centres in the participating countries. Japan plans to contribute to further vitalization of APEID, while continuing to organize seminars and workshops, participating in mobile training teams, accepting experts to provide them with opportunities of training, and participate in joint research and development activities.

(2) Regional Cooperative Programme in Higher Education for Development in Asia and the Pacific

With a view to helping improve and re-organize the higher education systems in the region in such a way to make them more relevant to social and economic development in respective countries, UNESCO is carrying out joint study and information exchange through the following three consortia:

1) Consortium I on innovation in higher education, including distance education and universities of the air: 36 institutions from 15 participating countries.

2) Consortium II on policy, planning and management in higher education: 25 institutions from 12 participating countries.

3) Consortium III on special research studies in higher education for development: 33 institutions from 14 participating countries.

In 1984 two Japanese institutions, namely, the University of the Air Foundation and the National Institute of Multi-Media Education, participated in Consortium I while the Research Institute for Higher Education of Hiroshima University, participated in Consortium III.

The establishment of these consortia for the region for expediting the exchange of experiences has facilitated functional linkages among participating institutions of higher education. Japan plans to continue its cooperation with this cooperative programme.

(3) Regional Networks for Basic Sciences in Southeast Asia

10 UNESCO Member States in Asia and the Pacific region participate in regional cooperative programmes for training junior researchers in basic sciences in microbiology and chemistry of natural products.

Since 1976 Japan has been contributing fund-in-trust to UNESCO for these cooperative programmes. The Faculty of Pharmaceutical Sciences of the University of Tokyo acts as a focal point in Japan for the regional network for chemistry, and the Faculty of Engineering of the University of Osaka as a focal point for microbiology.

With Japanese contribution four regional workshops are held and five researchers are exchanged between the participating countries in each of the above two areas.

(4) Southeast Asian Ministers of Education Organization (SEAMEO)

SEAMEO is a regional organization established in 1968 with the aim of promoting cooperation among the Southeast Asian countries through education, science and culture.

The Organization undertakes a variety of collaborative programmes through the five centres and two projects listed below. (Its Secretariat is located in Bangkok, Thailand)

SEAMEO has nine Member States and three Associate Members. Japan has been cooperating with the Organization by sending relevant experts to respective Centres and Projects and also by other means.

SEAMEO Regional Centres and Projects

1) Regional Centre for Tropical Biology (BIOTOP. Located in Bogor, Indonesia)

2) Regional Centre for Educational Innovation and Technology (INNOTECH. Located in Manila, the Philippines)

3) Regional Centre for Education in Science and Mathematics (RECSAM. Located in Penang, Malaysia)

4) Regional Language Centre (RELC. Located in Singapore)

5) Regional Centre for Graduate Study and Research in Agriculture (SEARCA. Located in Los Banos, the Philippines)

6) Project in Archaeology and Fine Arts (SPAFA. The Coordinating Unit is located in Bangkok, Thailand)

7) Regional Tropical Medicine and Public Health Project (TROPMED. The Office of the Central Coordinating Board is located in Bangkok, Thailand)

III. HRD cooperation through technical cooperation

Technical cooperation projects, especially intending to accelerate the development of human resources in developing countries, have much

expanded in amount and have been increasingly diversified in their composition. Inter alia, the following cooperation projects are considered as an embryo conducive to a functional linkage or network to be established among existing organizations within the region.

1. ASEAN HRD Centre projects

These projects, conducted under both grant aid and technical cooperation, have established one centre in each of the five ASEAN countries, as described below, which is mutually open to each other among these countries for the purpose of human resources development. Responding to the diversification of needs in these countries for technical cooperation, activities at these centres are so designed, since their inception, as to provide substantial basis for a certain linkage between the centres.

1) Indonesia: Centre for Vocational and Extension Service Training

Its objective is to provide training for instructors who promote the entry of young and less skilled workers into the effective job market and help improve the management in small-scale industries.

2) Malaysia: Centre for Instructor and Advanced Skill Training

This centre constitutes an integral part of the National Development Plan.

3) The Philippines: Philippines HRD Centre

The centre is intended to provide those who take initiatives in rural development in such fields as construction, cottage industries and aquacultures, and to develop a model for information processing to be applied for effective promotion of HRD in the country.

4) Singapore: Productivity Development Project

In order to contribute to the improvement of productivity which constitutes an important basis for economic development,

and also to an expansion of the functions of the National Productivity Agency, the centre provides training and guidance in such fields as planning/research, extension/promotion, labour management, training of managers/supervisors, labour safety/sanitation, and information services.

5) Thailand: Training Centre for Primary Health Care

As a part of the programme for providing so-called bare-foot doctors under the National Economic and Social Development Plan, the centre is charged with the education and training of instructors as well as local experts who are to conduct studies and researches on primary health care for the improvement of basic sanitary conditions, and disseminate such information and knowledge for better understanding of this field by local people and provide medical assistance to local people.

In relation to these HRD projects, a centre in Okinawa, Japan (Okinawa International Centre) was opened early this year. Main activities of the centre are technical training for trainees participating from ASEAN countries, the exchange of people in connection with these training programmes, and the provision of relevant technical information to the aforementioned HRD centres in ASEAN countries.

2. International symposia, seminars, etc.

(1) Japan, through JICA and its Institute for International Cooperation, is actively holding international symposia and seminars attended by knowledgeable persons from both developing and developed countries.

e.g.

- "Seminar on Africa" was held in February 1985, attended by the Secretary General of the Sahel Club of OECD, senior economists of IBRD and other people concerned.

- "HRD Symposia" was held in April 1985, titled "Economic development and HRD in ASEAN and South Pacific countries towards the 21st century". It was attended by 21 delegates from 12 member countries of the Post ASEAN

Foreign Ministers Meeting, including 6 ASEAN countries, P.N.G., Fiji, and 4 developed countries, 16 Japanese delegates and some other 400 general participants.

(2) Likewise, at JICA's training centres in Japan, a number of seminars in various fields are organized as group training programmes for trainees from developing countries. In 1984, 40 seminars were held with 506 participants from developing countries.

(3) Japan views it possible to contribute to functional linkages for APC-HRD Cooperation through promoting the exchange of specialists and researchers related to HRD by holding international symposia and seminars through JICA.

3. Research Cooperation

(1) This is a type of technical cooperation intending to attain the objectives as described below, by the transfer of technology at advanced level through surveys and researches. Surveys and researches are jointly conducted by researchers of both a developing country and Japan on the subjects, determined and agreed by both countries, pertaining to social and economic improvement and development of the partner developing country.

Objectives:

a. To improve developmental theories and their approaches so as to fit into actual conditions in the partner developing country; develop appropriate technologies and improve institutional settings.

b. To help strengthen capabilities of research institutes and researchers of the partner developing country.

(2) Japan views it as possible to promote the above cooperation through JICA as a part of functional linkages for APC-HRD cooperation.

4. Public and private cooperation in overseas vocational training

In order to expand technical cooperation with developing countries and enhance its efficiency, Japan is supporting related vocational training executed by private firms, by utilizing facilities and functions of the Central Skill Development Centre in close cooperation with the Overseas Vocational Training Cooperation Centre which was established in the autumn of 1984.

Activities involved are:

a. To collect, analyse, process and provide data and information on overseas vocational training

b. To provide advisory services in planning and implementing method for vocational training for foreigners

c. To study and develop materials for vocational training for foreigners

d. To train instructors for technical and skill improvement to be sent to developing countries

e. To advise on practical procedures and know-how on the preparation and implementation of vocational training for foreigners including the acceptance of overseas trainees

f. To provide technical and skill training to overseas trainees

g. To help overseas trainees associate with Japanese society.

As for the Overseas Vocational Training Cooperation Centre, its functions are entrusted to the Overseas Vocational Training Association (OVTA) so that proper organization and implementation of the above vocational training is ensured so as to fit actual needs in the private sector.

5. Asia and the Pacific Skill Development Programmes (APSDEP)

These programmes were established in October 1978 aiming at expanding employment opportunities and promoting economic and social development as well as skill development in Asia and the Pacific region. They are intended to expedite technical cooperation in vocational training in the same region by sharing and making the most of knowledge, experience, materials and facilities presently possessed by each country, among the countries at similar levels of development. As of 1st January 1985, 27 countries in Asia and the Pacific are members of the Programmes.

(1) APSDEP are executing various projects including researches and studies, seminars and workshops, advisory services to the member governments, acceptance of trainees, publication of various documents and information, etc., in the following fields:

Project number	
001	Recording, storing and provision of information on vocational training
002	Formulation of effective training plan and evaluation methods
003	Promotion of vocational training in rural areas
004	Development of materials for vocational training and provision of them to the member countries
005	Introduction of the standards of the trade skill test and propagation of the trade skill test
006	Development of apprenticeship and in-house or in-plant training
007	Development of training methods of supervisors
008	Development of vocational training for promoting job opportunities for women

009 Promotion of training of instructors of vocational training

010 Promotion of vocational training for adaptation to new technology

(2) Japan is providing the following assistance:

a. Provision of contribution

b. Holding of workshops (i) re-training of instructors for better adaptation to technological innovation, and (ii) elaboration and improvement of skill, trade skill test and preparation for Skill Olympics.

This assistance is especially addressed to a more stable operation of the APSDEP.

c. Attendance at Council Meeting and discussing activities of the APSDEP.

List of Cooperation Programmmes and Projects
Bearing Certain Characteristics of Functional Linkages

A. Educational and scientific fields

Undertaking	Purpose	Category	Participants/ Participating Organizations	Major Characteristics	Implementing Agency
Scientific exchange under the core university system	To promote scientific exchange with developing countries in specific research fields	Exchange of researchers Joint research Seminar	Core-universities Cooperating universities Participating researchers	Coordinated, systematic and continuous scientific exchange with ASEAN countries and Japan	Ministry of Education JSPS
Ronpaku (Dissertation Ph.D) Programme	To meet needs of junior researchers of developing countries	Joint supervision by senior researchers of Japan and home country	Junior researchers Senior researchers	Possibility to obtain Ph.D from Japanese universities while retaining position in home country	Ministry of Education JSPS
Asia and the Pacific Programmes of Educational Innovation for Development (APEID)	To strengthen educational cooperation and promote endogenous development of education in each country	Training courses and workshops mobile training teams Joint innovative projects Exchange and dissemination of information and materials	25 UNESCO member countries in Asia and the Pacific	Regional cooperative programme participated by APEID associated centres in each country for educational innovation for development	Ministry of Education
Regional cooperative programme in higher education for development in Asia and the Pacific	Exchange of Information and experiences Joint study	Activities conducted by three consortia on innovation, policy and special research studies	Institutes for higher education participating in the three consortia in UNESCO member countries in Asia and the Pacific	Regional cooperative programme for improvement and reform of the higher education system connected with social and economic development	Ministry of Education
Regional Networks for basic sciences in Southeast Asia	Training of young researchers in basic sciences	Exchange of researchers Workshop	10 member countries of UNESCO in the Asia-Pacific region	Regional networks to promote basic sciences	Ministry of Education
Southeast Asian Ministers of Education Organization (SEAMEO)	To promote cooperation among the Southeast Asian nations through education, science and culture	Research and development, training Information exchange	9 member states and 3 associate members	The organization undertakes a variety of collaborative programmes through the five centres and two projects listed below	Ministry of Education

B. Technical cooperation

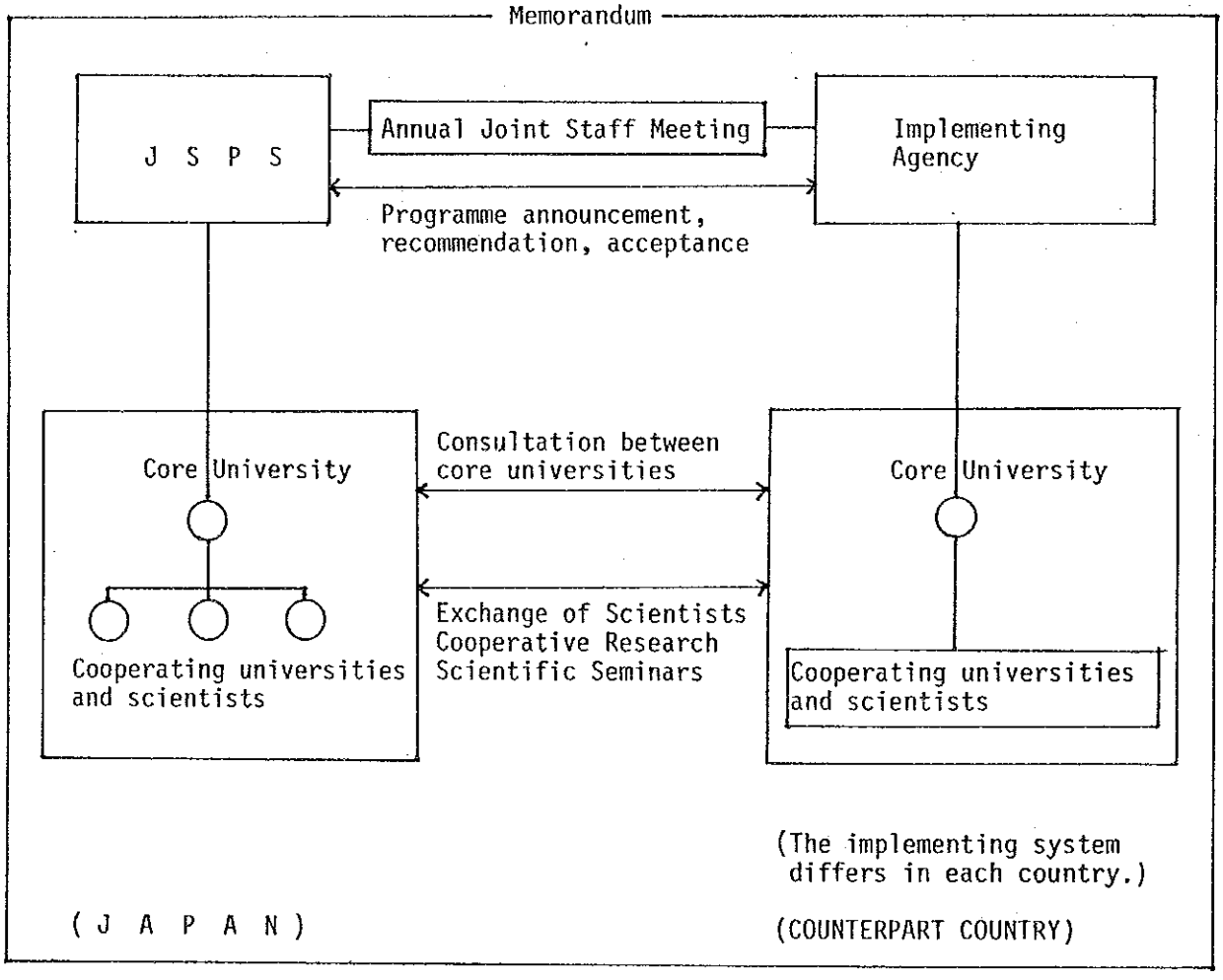
Undertaking	Purpose	Category	Participants/ Participating Organizations	Major Characteristics	Implementing Agency
ASEAN Human Resources Development Centre projects	To develop human resources needed for social and economic development	Technical training	Technical experts Technical trainees	The centres are open to all the ASEAN countries so as to complement each other	Ministry of Foreign Affairs Ministry of Labour JICA
International Symposia, Seminars and Conferences	To strengthen both theories and techniques for development To improve professionals capacity for research and survey	Symposium and seminar	Experts	International meetings attended by experts Group training courses	Ministry of Foreign Affairs JICA
Research Cooperation	To facilitate better access to accumulated researches To apply research findings to socio-economic development	Study and research as a part of technical cooperation	Researchers	Transfer of technology at adviced level through surveys and researches	Ministry of Foreign Affairs JICA
Public and private cooperation programme in overseas vocational training	To develop human resources in the private sector through the joint programme of the government and the private sector	Training methods curriculum, development, vocational training, information collection and dissemination	Private enterprises	Human resources development of the private sector through a joint programme of the government and the public sector	Ministry of Labour Overseas Vocational Training Association (OVTA)
Asia and the Pacific Skill Development Programmes (APSDEP)	To promote the technical cooperation of vocational training	Research and survey, seminars and workshops, acceptance of overseas trainees	The member countries (professional, trainees, etc.)	Exchanges of knowledge, experience and facilities among the member countries in line with the principle of TCDC	Ministry of Labour

Annex

1. Scientific Exchange

(1) Scientific exchange under the Core University System

(a) System



Note: Under the Memorandum, in addition to above-illustrated "core university system", there are "general exchange system" and "Ronpaku Programme" where coordinators and individual scientists take key role in programme implementation.

(b) Core and Cooperating Universities and Fields by Counterpart Country

Counterpart Country	Field	Japanese Core University	Counterpart Core Univ.	Japanese Coop. University	Counterpart Coop. University
Thailand (NRCT)	Biotechnology	Osaka Univ.	Mahidol Univ.	University of Tokyo Nagoya University Hiroshima Univ. Kyushu University Osaka City Univ.	Kasetsart Univ. Chulalongkorn Univ. Khon Kaen Univ. Prince of Songkhla Univ., etc.
	Agricultural Science	Tokyo Univ. of Agriculture	Khon Kaen Univ. etc.	Univ. of Tsukuba Chiba Univ. Nagoya Univ. Okayama Univ. Kagoshima Univ., etc.	Prince of Songkla Univ. Chiang Mai Univ. Maejo Institute of Agricultural Tech.
	Engineering Science	Tokyo Institute of Technology	King Mongkut's Institute of Technology	Hokkaido Univ. Tohoku Univ. Chiba Univ. Univ. of Tokyo Osaka Univ.	Chulalongkorn Univ. Kasetsart Univ. Chiang Mai Univ.
	Medical Science	Kobe Univ.	Mahidol Univ.	Tohoku Univ. Univ. of Tokyo Tokyo Medical and Dental Univ. Kyoto Univ. Osaka Univ. Okayama Univ. Kyushu Univ., etc.	Chulalongkorn Univ. Khon Kaen Univ. Chiang Mai Univ. etc.
Indonesia (DGHE)	Agricultural Science	Tokyo Univ. of Agriculture	Bogor Agricultural Univ.	as shown above	Lampung Univ. Padjadjaran Univ. Gadjah Mada Univ. Udayana Univ.
	Engineering Science	Tokyo Institute of Technology	Univ. of Indonesia Bandung Inst. of Technology	as shown above	Bandung Institute of Technology Gadjah Mada Univ. etc.
	Medical Science	Kobe Univ.	Univ. of Indonesia	as shown above	Airlannga Univ. Gadjah Mada Univ. Padjadjaran Univ.
(LIPI)	Engineering Science	Tokyo Institute of Technology	National Institute of Physics	as shown above	National Institute of Instrumentation
Philippines (NSTA)	Biotechnology	Osaka Univ.	Univ. of the Philippines	as shown above	National Institute of Science and Technology
	Agricultural Science	Tokyo Univ. of Agriculture	Univ. of the Philippines	as shown above	Visayas State Coll. of Agriculture Central Luzon State Univ.
	Engineering Science	Tokyo Institute of Technology	Univ. of the Philippines	as shown above	Ateneo de Manila Univ. De La Salle Univ.
	Medical Science	Kobe Univ.	Univ. of the Philippines	as shown above	St. Louis Univ. Cebu Institute of Medicine Davao Medical School
Singapore (NUS)	Biotechnology	Osaka Univ.	National Univ. of Singapore	as shown above	-
	Medical Science	Kobe Univ.	National Univ. of Singapore	as shown above	-
	Natural Science	Univ. of Tokyo	National Univ. of Singapore	Univ. of Tsukuba Chiba Univ. Nagoya Univ. Kyoto Univ. Osaka Univ.	-
Malaysia (VCC)	Integrated Engineering	Kyoto Univ.	Univ. of Malaya	Tokyo Univ. of Agriculture and Technology Osaka Univ. Kobe Univ. Kyoto Institute of Technology	Science Univ., Malaysia National Univ., Malaysia Technological Univ., Malaysia Agricultural Univ., Malaysia

Engineering Science with emphasis on opto-electronics

(c) Number of Exchange Scientists under the Core University System

- FY1984 -

Counterpart Country	From Counterpart Countries to Japan		From Japan to Counterpart Countries		Total	
Thailand (NRCT)	68	(10)	61	(8)	129	(18)
Indonesia (DGHE)	41	(3)	50	(0)	91	(3)
Indonesia (LIPI)	6	(3)	1	(0)	7	(3)
Philippines (NSTA)	42	(7)	61	(10)	103	(17)
Singapore (NUS)	22	(2)	33	(2)	55	(4)
Malaysia (VCC)	14	(0)	19	(0)	33	(0)
Total	193	(25)	225	(20)	418	(45)

Note:

1. Figures exclude scientists visited for the purpose of participating in scientific seminars.
2. Figures in ( ) indicate those exchange scientists who continued to visit from FY1984 to FY1985. They are counted as FY1985 exchange scientists.

(d) Scientific Seminars

- FY1984 -

Title of Seminar	Period and Place	Participants Japanese	Participants Foreigners	Total
Hepatocellular Cartinoma	15-16 Oct. '84 Kobe, Japan	24	44 (4)	68 (4)
Physiology and Genetics of Fish/Shellfish and Aquaculture	23-27 Oct. '84 Tokyo (Japan)	23	9 (7)	32 (7)
Seminar on Nephtology	19-20 Nov. '84 Bangkok (Thailand)	5	50	55
Regional Symposium on Opto-electronics - Optical Communications and Solar Cells -	19-20 Nov. '84 Bangkok (Thailand)	19 (3)	107 (5)	126 (8)
International Seminar on Environmental Factors in Agricultural Production	15-19 Dec. '84 Songkla (Thailand)	14 (13)	26 (6)	40 (19)
Joint NRCT-JSPS Seminar on Environmental Protection and Law	16-20 Dec. '84 Bangkok (Thailand)	9 (5)	42 (4)	51 (9)
Joint NRCT-JSPS Seminar on Biotechnology	24-26 Dec. '84 Khon Kaen (Thailand)	24 (15)	145 (11)	169 (26)
Total		118 (36)	423 (37)	541 (73)

Note:
1. Figures of participants exclude observers.
2. Figures in ( ) indicate numbers of participants whose international travel expenses were borne by JSPS as the seminar participants.

(2) The Ronpaku (Dissertation Ph.D.) Programme

(a) Implementation for FY1984

COUNTERPART COUNTRY	DISSERTATION FELLOW starting in FY1983 or before	starting in FY1984	Total	EXCHANGE OF VISIT visit by fellow	visit by Japanese advisor	Total	PH.D. GRANTEE
Thailand (NRCT)	9	5	14	15 (2)	6 (0)	21 (2)	1
Indonesia (DGHE)	7	14	21	20 (4)	8 (2)	28 (6)	1
Philippines (NSTA)	2	3	5	5 (0)	2 (0)	7 (0)	1
Total	18	22	40	40 (6)	16 (2)	56 (8)	3

Note:
Figures in ( ) indicate numbers of those scientists who continued to stay counterpart countries continued from FY1983 to FY1984. They are counted as FY1984 exchange.

(b) Number of Ph.D. Degree Recipients since FY1978 (as of October 1985)

Country	Indonesia	Thailand	Philippines	Total
Number of Recipients	9	7	2	18

2. Multilateral Exchange Programmes through UNESCO, etc.

(1) Asia and the Pacific Programme of Educational Innovation for Development (APEID)

(Objectives)

APEID aims to strengthen educational cooperation among UNESCO Member States in Asia and the Pacific and thus to promote endogenous development of education in each country. The specific objectives are as follows:

1) To promote awareness of the need for educational innovation and of possibilities for change;

2) To promote understanding of the processes and practices of innovation, with a view to encouraging systematic experimentation for educational innovation on response to problems of development;

3) To assist the Member States in strengthening national programmes which are developing personnel, techniques and management capacity for educational development.

4) To promote the inter-country transfer of experiences and technical co-operation, particularly through exchange activities, advisory services and information.

(Activities)

APEID is a regional co-operative programme in which UNESCO Member States in Asia and the Pacific participate and jointly design, plan, implement and evaluate various programmes in the areas noted below. The modes of action include: seminars and workshops; mobile training teams; participation as resource persons of the staff of one Associated Centre in training courses, workshops of others organized by another Associated Centre; co-operative research and development, etc.

Programme areas

1) Universalization of education -- education of handicapped children
2) Education for promotion of scientific and technological competence and creativity
3) Education and work -- vocational and technical education
4) Education and rural development

5) Educational technology

6) Training of educational personnel

7) Co-operative studies and research related to educational development

The following three topics are to pervade all of the seven programme areas:

1 Curriculum development; 2 Development of information, data processing and computerization; and 3 Education for strengthening links between culture and development.

The project "mobile training teams" is administered by UNESCO with fund-in-trust from the Government of Japan. In this project, mobile training teams including Japanese experts are organized in five programming areas (educational technology, vocational and technical education, curriculum development, science education and education for handicapped children) to participate as resource persons in national workshops organized in some host countries participating in APEID and thus to contribute to educational innovations in the region.

(Participating countries and institutions)

Twenty-five UNESCO Member States in Asia and the Pacific and 156 institutions in these countries.

(Office of the Secretariat: UNESCO Regional Office for Education in Asia and the Pacific, Bangkok)

(Participating institutions from Japan)

Japan Council of Educational Technology Centres (Educational Technology)

University of Tsukuba (Vocational and technical education)

Obihiro University of Agriculture and Veterinary Medicine (Vocational and technical education)

National Institute for Educational Research (Curriculum development, science education, etc.)

National Institute of Special Education (Special education)

(Reference Table)

Number of Participants in APEID Training Workshops and Seminars Held in Japan in Recent Fiscal Years

Country	Educational technology			Vocational and technical education							Curriculum development, science education, etc.			Special education		
	(Note 1)			(Note 2)			(Note 3)			(Note 4)	(Note 5)			(Note 6)		
	'82	'83	'84	'82	'83	'84	'82	'83	'84	'81	'82	'83	'84	'82	'83	'84
•Afghanistan																
•India		1	2						1	2	4	3	3	1	1	1
•*Indonesia				1	1	1		1			2	2	3	1	1	1
•Iran																
•Papua New Guinea					1	1					2	1	2			
•*Singapore		1	2							2	3	4	1	1		1
•Sri Lanka		1	2				1		1		2	4	1	1	1	1
•*Thailand	1	1	2	1	1	1	2	1	1	1	5	6	3	1	1	1
•Korea, Republic of	1	1	2	1	1	1	1	2	1	1	5	7	5	1	1	1
•Nepal	1	1			1	1	1			1	2	4	2	1	1	1
•Bangladesh								1		1	2	3	2		1	1
•Pakistan		1								2	2	3	1	1		1
•*Philippines	1	1	2	1	1	1	1		1	1	5	4	4	1	1	1
•Viet Nam										1		1	1			
•*Malaysia	1	1	2	1	1	1	1		1	1	5	3	4	1	1	1
•Laos																
•Australia			2							1	2	3	3	1	1	1
•China, People's Republic of		1	2	1	1	1			1		3	5	4	1	1	1
•New Zealand										1	2	3	3	1		1
•Maldives										1						
•Western Samoa													1			
Burma																
Kampuchea																
•Fiji													1			
•Tonga																
Others			1								7	5	2			
Total	5	10	19	6	8	8	7	5	7	16	53	61	46	13	11	14

The countries marked with • are countries participating in APEID.
The countries marked with * are ASEAN countries.

(Note 1)

Asian Seminars on Educational Technology (Tokyo Seminar) held mainly at Tokyo Gakugei University

The First Seminar (in the third programming cycle of APEID)

26 October - 2 November 1982

The Second Seminar (in the third programming cycle of APEID)

17 October - 26 October 1983

The Third Seminar (in the third programming cycle of APEID)

25 September - 3 October 1984

(Note 2)

Tsukuba Asian Seminars on Agricultural Education (organized by the University of Tsukuba)

1982	19 - 30 October 1982
1983	18 - 29 October 1983
1984	23 October - 3 November 1984

(Note 3)

Obihiro Asian Seminars on Education for Rural Development (organized by Obihiro University of Agriculture and Veterinary Medicine)

1982	20 - 30 September 1982
1983	18 - 30 September 1983
1984	16 - 28 September 1984

(Note 4)

The Second Workshop on Teacher Preparation for Vocational and Technical Education (organized by the National Institute for Educational Research)

28 January - 19 February 1982

(Note 5)

The following regional meetings were organized by the National Institute for Educational Research:

(Fiscal 1982)

Planning Meeting on the Development of Teachers' Resource Kits

3 - 15 June 1982

Regional Workshop on the Development of Research concerning the Implementation and Evaluation of Reforms of Educational Content and Methods

4 - 17 November 1982

Regional Workshop on Educational Information

1 - 23 February 1983

(Fiscal 1983)

Regional Design Workshop on Mathematics Education

27 September - 4 October 1983

Special Seminar on Work as a Part of General Education

25 - 29 October 1983

Regional Seminar on Educational Research with Special Reference to the Exchange of Research Outcomes in Asia and the Pacific

9 - 25 November 1983

Regional Workshop on the Study of Elementary Curriculum in Asia and the Pacific

28 February - 15 March 1984

(Fiscal 1984)

Regional Seminar on Educational Research in Relation to Educational Reform in Asia and the Pacific

11 - 20 July 1984

Regional Training Workshop for the Development of Materials for Mathematics Education

30 October - 17 November 1984

The Second Regional Workshop on the Study of Elementary School Curriculum in Asia and the Pacific

16 January - 7 February 1985

Special Meeting on Secondary Education in Asia

13 - 23 March 1985

(Note 6)

Regional Seminars on Special Education (organized by the National Institute of Special Education)

The Second Seminar	16 - 22 September 1982
The Third Seminar	27 September - 4 October 1983
The Fourth Seminar	2 - 9 October 1984

(2) Regional Co-operative Programme in Higher Education for Development in Asia and the Pacific

(Aims and objectives)

This regional programme aims to help elevate the national capabilities of each Member State in Asia and the Pacific for the improvement and re-organization of the higher education system with a view to making it relevant to social and economic development in each country. To this aim the programme is intended to share and develop relevant knowledge and wisdom for the improvement of higher education and thus to promote mutual understanding and mutual respect between different higher education systems. The specific objectives of the programme are as follows:

1) To set up co-operative mechanisms for the promotion of the exchange of experiences among participating higher education institutions;
2) To conduct joint studies of specific areas relating to the role and problems of higher education;
3) To exchange information concerning innovative trends in higher education.

(Activities)

Joint studies and information exchanges are conducted through the following three consortia:

Consortium I	:	Consortium on innovation in higher education (including distance education, university of the air, etc.)
Consortium II	:	Consortium on policy, planning and management in higher education (for higher education policy)
Consortium III	:	Consortium on special research studies in higher education for development (for research and study in higher education)

Participating Countries and Institutions in Each Consortium
(as of July 1984)

(Figures in parentheses represent the number of participating institutions.)

Consortium I — 15 countries (36 institutions)

Australia (1), Bangladesh (4), China (People's Republic of) (3), India (4), Indonesia (2), New Zealand (2), Pakistan (3), Papua New Guinea (1), Philippines (2), Korea (Republic of) (2), Singapore (1), Viet Nam (4), Thailand (4), U.S.S.R. (1), and Japan (2)

Note: Two institutions from Japan participated in August 1984

Consortium II — 12 countries (25 institutions)

Australia (1), Bangladesh (3), China (People's Republic of) (2), India (2), Indonesia (1), Pakistan (2), Papua New Guinea (1), Philippines (2), Korea (Republic of) (2), Singapore (1), Viet Nam (4), and Thailand (4)

Consortium III — 14 countries (33 institutions)

Australia (1), Bangladesh (5), China (People's Republic of) (1), India (4), Indonesia (1), Japan (1), New Zealand (2), Pakistan (5), Papua New Guinea (1), Philippines (2), Korea (Republic of) (2), Singapore (1), Viet Nam (4), and Thailand (3)

Japanese Participating Institutions

Consortium I	The University of the Air Foundation The National Institute of Multi-Media Education Note: Both institutions participated in the consortium in August 1984
Consortium III	Research Institute for Higher Education, Hiroshima University (which participated in April 1984)

(3) Southeast Asian Ministers of Education Organization (SEAMEO)

SEAMEO is an international organization established in 1968 with the aim of promoting co-operation among the Southeast Asian nations through education, science and culture. To achieve this aim the Organization endeavours to advance mutual knowledge and understanding of the peoples in Southeast Asia and undertake a wide range of collaborative programmes.

According to the Charter of SEAMEO, the functions of the Organization are as follows:

1) To collaborate in the work of advancing the mutual knowledge and understanding of the peoples in the Southeast Asia;
2) To promote and collaborate with the Member States in joint projects and programmes of mutual benefit concerning education, science and culture and assist the members in the development of educational activities;
3) To maintain, increase and diffuse knowledge; and
4) To assist in articulating education to the economic and social goals in the individual Member States.

(Programmes)

The Organization undertakes a variety of collaborative programmes through the following five Centres and two Projects.

Full Name	Abbreviation	Location	Main Activities
1 SEAMEO Regional Centre for Tropical Biology	BIOTROP	Indonesia (Bogor)	Research and training in tropical biology
2 SEAMEO Regional Centre for Educational Innovation and Technology	INNOTECH	Philippines (Manila)	Research, training and information activities contributing to innovations in educational content and techniques
3 SEAMEO Regional Centre for Education in Science and Mathematics	RECSAM	Malaysia (Penang)	Training and research contributing to the improvement of curriculum and teaching materials for science and mathematics
4 SEAMEO Regional Language Centre	RELC	Singapore	Training and research contributing to the improvement of English and other language studies (including postgraduate courses) in Southeast Asia
5 SEAMEO Regional Centre for Graduate Study and Research in Agriculture	SEARCA	Philippines (Los Banos)	Graduate Study and research in agriculture
6 SEAMEO Project in Archaeology and Fine Arts	SPAFA	Thailand (Bangkok)	Training and research relating to the preservation and restoration of archaeological properties

7 SEAMEO Regional Tropical Medicine and Public Health Project	TROPMED	Thailand (Bangkok)	In-service training, research and information exchange relating to tropical medicine and public health

(Membership and Associate Membership)

The Member States of the Organization are nine, namely, Indonesia, Malaysia, the Philippines, Singapore, Thailand, Brunei, Laos, Viet Nam and Democratic Kampuchea. In addition, the Organization has three associate members, namely, Australia, New Zealand and France.

(Japan's Co-operation with SEAMEO)

The Government of Japan has been co-operating with the Organization through sending relevant experts to respective Centres and Projects and through other means.

Annex I

Singapore's Country Report

ANNEX I

THE PATTERN AND SIGNIFICANCE OF HUMAN RESOURCES DEVELOPMENT IN THE SINGAPORE ECONOMY

Introduction

Considerable emphasis has been given to human resources management and its development in Singapore. Twenty-five years of perspective economic planning and development has transformed Singapore from a labour-surplus to a labour deficient economy. By the end of the 1970s, it is evident that the Singapore economy had begun experiencing a full employment situation, which meant a very low unemployment rate, critical shortages of manpower in vital economic sectors and upward wage pressures for many skills. This rapidly critical manpower shortage may be detrimental to Singapore in that would-be investors may shy away if the appropriate manpower resources are not available. Thus, Singapore's main challenge for the rest of the 1980s lies in the harnessing and development of its human resources, which are its primary assets.

This paper attempts to relate the pattern of human resource development to Singapore's economic development strategies. The move towards "high technology" industries necessitates tremendous changes in terms of job requirements and work organization. This requires not only good planning in human resource utilization and development but also its effective management. There is a need to motivate people to strive for fulfillment of not only their personal objectives, but also that of the

organizations in which they work and the attainment of national prosperity.

The next section will examine one of the key determinants of Singapore's economic and manpower development policies, namely, a declining work force.

Manpower Planning in Singapore

Between 1947 and 1957, the population of Singapore increased at a growth rate of 4.4 percent per annum, one of the highest in the world. The population growth was mainly due to natural increase. Rapid population growth also changed the age composition. Persons in the age group 0-14 years increased from 35.9 percent in 1947 to 42.8 percent in 1957. On the other hand, persons in the age group 15-64 declined from 62.2 percent to 55.0 percent. This means an increase in the young dependency ratio. In 1947, there were 1.7 working persons for every child, but this number fell to 1.3 in 1957.

The rapid population growth had other economic and social consequences. First, the economic growth in the fifties (estimated to be around 4.6 percent per year) was fully offset by the rapid population growth, with no change in living standards. Second, more jobs had to be created for the new entrants into the labour market; failure to do so would mean a higher unemployment rate. Third, the rapid population growth further aggravated the already appalling housing problem. More flats and dwelling units had to be built just to cater for the increasing demand for housing. Finally, with an increasing young population, more schools and teachers were needed.

However, the situation is entirely different in the early eighties. With the successful implementation of family planning programmes since 1966, the population growth rate had slowed down considerably to 1.7 percent per annum in the seventies and around 1.2 percent per year in the last three years. This slowdown in population growth meant that the domestic supply of labour would be insufficient to cope with economic expansion. Part of the demand for labour was met by immigrant workers, about 150,000 or 8.3 percent of labour force in 1983.

The number of aged persons (65 and above) has increased, from 31.1 thousand (2.2 percent) in 1957 to 114 thousand (4.7 percent) in 1980. If the trend continues, the aged will have reached 7.2 percent by the year 2000 and 18.9 percent in 2030. Economically, it means that while the young dependency ratio has improved, the old dependency ratio would deteriorate. There were 25.6 working persons to support one aged person in 1957, the number declined to 14.5 in 1980.

This ratio will further decline to 9.8 and 3.2 per aged person in the years 2000 and 2030 respectively. The greying society will bring with it economic, social and political problems.

One problem arising out of the slackening rate of population growth has already been felt in recent years. This relates to the question of the supply of labour for the production of goods and services. To overcome the shortage of labour Singapore is moving towards higher-skill industries based on a higher wage system, together with greater mechanisation, automation and computerisation. Projections of labour force based on existing age-specific participation rates have revealed that the increase in the labour force will decline progressively from 1990-95. One can therefore expect an indefinite continuation of the

serious problem of labour shortage which may set a limit to the future growth potential of the Singapore economy. (1)

For the purpose of systematic analysis of Singapore's process of economic development, the periods between 1959 - 1983 will be strategically divided into three phases. These are:

(1) Self-government to independence (1959 - 1965)

(2) Industrialisation take-off (1966 - 1978) and

(3) Economic Restructuring (1979 - 1983).

Self-Government to Independence (1959 - 1983)

Singapore attained self-government in 1959. It was, at that time, essentially an "island trading outpost with its economic hinterland in other countries". Entrepot trading was the major pillar of its economy, accounting for 33.1% of its Gross Domestic Product in 1960, while the other sectors of the economy were relatively poorly developed. Manufacturing sector, for example, was characterised by numerous small establishments. It was anticipated that Singapore's traditional entrepot trade would not see sufficient expansion in the coming years to provide full employment opportunities for the growing population of working age. The United Nations Survey Mission which conducted a study in 1960 - 1961 estimated that a total of 214,000 new jobs would require to be created by 1970 to realise full employment. Of these 116,000 could be provided by the trade, building and construction, and service sectors, and 20,000 by the repairing and supporting service industries, leaving a shortfall of 78,000 jobs to be provided by future manufacturing industries.

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(1) Ow Chin Hock, "Singapore: Past, Present and Future."

It was in these circumstances that the first serious thought was given to the initiation of industrial development in Singapore. The same United Nations Survey Mission in its Proposed Industrialisation Programme of Singapore, identified some industries which seemed good long term prospects as well as some which would create new jobs quickly to temporarily ease unemployment. The industries sought at that time were the labour intensive industries which would help slove the unemployment problem, and the policy was initially one of import substitution.

Despite the identification of the importance of developing the manufacturing sector, progress was moderate in the first half of the decade, with uncertainty in the political scene and labour unrest causing potential investors to hesitate. Manufacturing sector growth in the first half of the decade up to 1965, measured by its contribution to GDP, averaged an annual 9.2%. GDP itself had increased from S$2,122 million in 1960 to S$2,780 million in 1965, annual growth over the period averaging 5.7%.

Industrialisation Take-off (1966-1978)

In August 1965, Singapore broke away from the Malaysia Federation and found itself an independent nation with no natural resources other than its people. Trade was still the most important economic sector, contributing 29% of the GDP in 1965, although the manufacturing sector had increased its share to 15.3% in 1960 and down further to 2.5% by 1965. However, with a population of 1.9 million, unemployment in 1966 was still high at 8.9%. Now totally on its own, industrialisation was even more crucial in Singapore's strategy for survival.

Singapore's viability seemed in question then, particularly her ability to attract foreign investments. On her own, Singapore's import substitution policy would not work in a vastly reduced market. New thinking and new directions were badly needed. The critical leadership input did come in time to save Singapore from her impending crisis. The new strategy was bold and seemed highly risky for Singapore then. It was based on steering the economy on an export expansion path. To successfully carry on such a strategy, it meant that Singapore must have a new set of institutional and environment measures to go with it. Thus, from 1967 to 1972, Singapore had begun a policy of liberalizing the economy by first of all rationalizing its industries through the removal of the heavy protection they once enjoyed. The idea was to make them competitive. Liberalizing also meant the economy was now widely opened to foreign investments, particularly those interested in making Singapore an export base.

In coming years, to the surprise of many observers, Singapore not only survived but flourished. Undoubtedly the favourable external conditions in the strong economies of the USA, Europe and Japan in the late '60s contributed much to Singapore's success, but deliberate policies and strategies adopted by its government played no small role in the rapid economic growth to the end of the decade and through the '70s.

With the unemployment problem still a critical issue, and with the major constraint of the tiny domestic market, the strategy was to encourage the labour intensive export-oriented industries. Singapore adopted an open-door policy towards investment with minimal controls and regulations and generous incentives. To ensure that its manufacturing

sector would develop to be internationally competitive, the tariff protection previously given to newly set up pioneer industries in the import substitution days was stopped. No new protective duties were introduced after 1968 and through the '70s a wide range of previously imposed duties were removed. In the meantime the infrastructure for supporting industrialisation in the form of

- prepared industrial sites and factories within planned industrial estate,
- good utilities with reliable and readily available electrical and water supplies,
- efficient worldwide telecommunications linkups,
- shipping and air transport facilities, and
- financial services

was developed.

To supply the skilled technical manpower required, the training capacity of the post secondary and tertiary institutions were expanded. Enrollment in the two universities, the University of Singapore and the Nanyang University, and the two technical colleges, the Singapore Polytechnic and the Ngee Ann Polytechnic, rose from 8,204 in 1965 to 11,672 in 1970, and that in the various technical and vocational institutes from 1,193 to 4,727.

In 1973, GDP, at 1968 factor costs, was S$7,247, almost 3.5 times that in 1960, and growth since 1966 had proceeded at an average 12.7% p.a. The success of the industrialisation effort was evidenced by the growth of the manufacturing sector to 22% of the nation's GDP.

Unfortunately, the oil crisis and world recession in 1974 - 1975 rekindled the fear of the return of unemployment and in the attempt to

keep Singapore competitive, wages were kept low and the labour-intensive industries continued to be dominant in the manufacturing sector.

1973 and 1974 saw soaring inflation of 19.6% and 22.3%, compared to the well below world average rates in both the preceding and succeeding years. GDP growth dropped to 6.8% and 4% in 1974 and 1975 respectively from the double digit levels of the previous years. Manufacturing sector growth fell in 1975 to 4.6% from levels of around 20% - 30%.

Despite this brief setback, however, Singapore weathered the recession successfully, and the economy picked up quickly. Between 1976 and 1979 economic growth climbed back to an average of 8.2% p.a., and the manufacturing sector moved again to double digit levels. Unemployment fell to below 4% in the last years of the decade and, in fact, subsequently to less than 3% in the first years of the '80s. Economic upgrading, however, had been held back.

Economic Restructuring (1979 - 1983)

By 1979, Singapore's GDP had grown about fivefold to S$11,031 million from S$1,985 million in 1959. The economy was well diversified, contributions of the main sectors of the economy to GDP were manufacturing 22.3% and financial and business services 15.1%.

The one black spot that marred the picture was declining productivity. In 1979 productivity growth dropped to 2.6% from 4% in 1978.

The low wages, deliberately kept in check through the early and mid '70s, had permitted manufacturers to continue using traditional labour intensive manual methods and processess, and the easy availability of cheap unskilled foreign workers (immigration regulations having in

earlier years been eased to permit these workers entry into Singapore to alleviate labour shortages) further encouraged this trend.

With the prospect of an ever-tightening labour market and mounting protectionism by developed countries against traditional labour intersive exports, the Government saw future success and survival dependent on economic restructuring towards higher technology, higher value-added industries which would make more efficient use of the now scarce manpower resources and moreover be less vulnerable to protectionism.

In the case of Singapore, there were additional factors that compelled restructuring :

For one, the processing of primary products originating in Malaysia and Indonesia, such as rubber, and copra, which were at one time feasible, is no longer very viable as these products are more advantageously processed in their countries of origin. Secondly, an overriding consideration against continued pursuit of labour-intensive policy for labour-short Singapore would have been the dependence on immigrant labour. It makes industries remain in a low wage trap, lacking in incentives to upgrade technology and therefore, remaining low in productivity. Indeed, Singapore before 1979 showed unimpressive productivity gains. There is also a demand side of this argument. This is that when workers real income increases through restructuring, that would translate into pecuniary externalities to the local firm. For a country such as Singapore whose bulk of industrial production is exported, a larger home market for higher priced goods would enhance the viability of Singapore as a manufacturing centre and cushion the industries against an adverse world demand.

From all these arguments, it could be seen that there was a sense of urgency to restructure. The idea for Singapore was to stay competitive, an idea which was taken up by other newly industrialised countries who were also restructuring in various forms. Altogether, deliberate restructuring requires taking risk-loaded bold steps that may or may not bring in the desired gains. In some ways Singapore was at a cross-road.

The two main instruments for restructuring were seen to be, firstly, increasing the relative price of labour to capital, and secondly, the acquisition of the appropriate and necessary skills by Singaporean workers. Sweeteners such as new incentives to encourage research and development activities were also offered. (2)

Implementation of Singapore's economic restructuring programme through these instruments was thus initiated in the closing years of 1970s to bring about the nation's "second industrial revolution", still in progress today. The following organizations have been instrumental in this development.

National Wage Council (NWC) Recommendations

This tripartite body was set up in 1972 initially to recommend wage guidelines designed to ensure orderly and conservative wage increases to maintain Singapore's competitive edge in world markets.

In 1979, this same body was used to initiate the economic restructuring policy, recommending an average increase in wage cost of around 20%, compared to the average annual 11% increase from 1976 to 1978. For the next 3 years, similar hefty increases were recommended to

(2) Tan Chwee Huat, "The Singapore Context."

bring wages in Singapore more in line with market levels. These measures, met with much protests by employers, were meant to induce them to mechanise, automate and computerise and to switch to less labour-intensive processes.

Skills Development Fund (SDF)

The Skills Development Fund plays a central role in Singapore's bid towards upgrading of manpower to service the needs of the new high technology "industries". This scheme enables firms to recover up to 70% of the cost of training or retraining their employees in activities that are considered to be an upgrading nature and is used extensively in various types of training schemes that could be either short term, such as in-house training courses, study tours or missions abroad, or longer term diploma or certificate awarding skill acquiring courses. SDF is an ingenious device, which like many schemes in Singapore is virtually costless to the government, and yet not painfully costly to the firm. The financing is done through a levy by government on all employees of firms whose monthly remunerations fall below S$750.00. It induces firms to use the fund for training, otherwise the non-training firm would be losers. In other words, the effect of the scheme is a redistribution device from firms not willing or having the capacity to train to firms willing to do so. The availability of SDF funds, had an impact in strengthening the financial viability of short-term managerial, technical and other specialized training institutions such as those adminstered by the National Productivity Board (N.P.B.) and the Singapore Institute of Management (S.I.M.).