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## ABSTRACT

This technical and vocational education (TVE) profile on Indonesia is one in a series of profiles of UNESCO member countries. It is intended to be a handy reference on TVE systems, staff development, technical cooperation, and information networking. A two-page overview lists TVE goals, outlines the structure and governance, and lists the six areas into which TVE programs are grouped: Agriculture and Forestry; Engineering; Business and Commerce; Home Technology; Health and Social Works; and Arts and Crafts. Nine diagrams and charts follow this overview and describe further the Indonesian TVE system. They concern the following: organization of the Ministry of Education and Culture; organization of the Directorate General of Primary and Secondary Education; organizational structure of the Directorate of Technical and Vocational Education (DTVE); summary of TVE within the Indonesian education hierarchy; structure of the education system; school ladder, types, and level of skills within the DTVE; ladder structure of school types and labor force pyramid; number of public secondary technical and vocational schools and student population, 1989-90; and list of clusters and study programs within curriculum 1984 for schools of TVE. (YLB)

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# NATIONAL PROFILES IN TECHNICAL AND VOCATIONAL EDUCATION IN ASIA AND THE PACIFIC

## Indonesia

### UNEVOC

#### International Project on Technical and Vocational Education

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# NATIONAL PROFILES IN TECHNICAL AND VOCATIONAL EDUCATION IN ASIA AND THE PACIFIC

## Indonesia



**UNEVOC**  
International Project on Technical and Vocational Education  
Projet International pour l'enseignement technique et professionnel



Colombo Plan Staff College  
for Technician Education

UNESCO PRINCIPAL REGIONAL OFFICE FOR ASIA AND THE PACIFIC, BANGKOK, 1995

This volume is one of a series of member country profiles on Technical and Vocational Education of the following member countries:

AFGHANISTAN	MALAYSIA
AUSTRALIA	MYANMAR
BANGLADESH	NEPAL
BHUTAN	ISLAMIC REPUBLIC OF PAKISTAN
PEOPLE'S REPUBLIC OF CHINA	PAPUA NEW GUINEA
FIJI	PHILIPPINES
INDIA	SINGAPORE
INDONESIA	SRI LANKA
ISLAMIC REPUBLIC OF IRAN	THAILAND
JAPAN	SOCIALIST REPUBLIC OF VIETNAM
REPUBLIC OF KOREA	

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## FOREWORD

Technical and vocational education has always been an important component of UNESCO's consecutive Medium Term Plans. The basic objective of this programme is to support the efforts of Member States to link education systems more closely to the world of work and to promote the expansion and improvement of technical and vocational education in the light of changing employment needs.

The Colombo Plan Staff College for Technician Education (CPSC) also dedicates itself primarily to enhancing the growth and development of the technician education systems in its member countries which are located in the Asia and Pacific region. Its programmes, projects and activities are geared to provide the needed impetus for the professional development of senior level personnel involved in technician education development efforts.

UNESCO has launched an International Project on Technical and Vocational Education (UNEVOC) as of 1992 in co-operation with the Government of Germany, ILO, FAO, UNDP and NGOs interested in the reform of technical and vocational education. This project focuses on exchanging information, research and experiences on policy and programme issues in technical and vocational through a network of co-operating institutions.

In a spirit of co-operation between UNESCO and CPSC, under UNEVOC, an attempt is being made to compile and publish studies on the development of technical and vocational education in Member States in the form of TVE profiles of 21 countries. It is hoped that this series will serve as a handy reference information on TVE systems, staff development, technical co-operation and information networking. These studies have been possible because of the full co-operation to UNESCO PROAP and CPSC by all concerned in the Member States.

The opinion expressed in this study are those of the authors and do not necessarily reflect the position of UNESCO and CPSC in this regard. This profile on Indonesia was prepared by Prof. Lemuel M. Miravalles, Seconded Faculty Member to CPSC by the Government of Philippines.

C.K. Basu  
Director, CPSC

Victor Ordonez  
Director, UNESCO PROAP

# TECHNICAL AND VOCATIONAL EDUCATION SYSTEM

## AN OVERVIEW

The goals of the Indonesian technical and vocational education (TVE) system are in accordance with the national goals as contained in the National Planning Guidelines, 1988. These TVE goals are described as follows:

1. As an educational institution, a senior technical and vocational school aims to educate its students in order for them to become complete Indonesian citizens based on *Pancasila*, encourage self-development and take responsibility for the growth of the nation.
2. As a vocational education institution, a senior technical and vocational school aims to provide skills to students as an initial preparation for the world of work in accordance with the identified requirements.
3. Pursuant to the principle of life-long education, a senior technical and vocational school aims to provide additional skills to enable students to strengthen their vocational skills and enable them to continue their studies at a higher level of education.

The Directorate of Technical and Vocational Education (DTVE), a sub-system of the Directorate General of Primary and Secondary Education within the Ministry of Education and Culture, is responsible for TVE at the secondary level.

In carrying out its task, the DTVE has the following major functions: (1) setting up the policies for technical and vocational education which consist of home economics, social work, business studies, technical and agricultural studies, and art and craft; (2) conducting development of TVE; and (3) carrying out the administrative work of the Directorate.

TVE within the secondary education sector in Indonesia has two main components: (1) Junior Technical and Vocational Schools (three years); and (2) Senior Technical and Vocational Schools (three or four years). Entry pre-requisites for the Senior Technical and Vocational Schools are successful completion at the Junior level and an age limit of not more than 19 years of age.

Based on Curriculum of 1984 which has been in place since school year 1985-1986, the TVE programmes are grouped into six areas as follows:

1. Agriculture and Forestry
2. Engineering
3. Business and Commerce
4. Home Technology
5. Health and Social Works
6. Art and Crafts

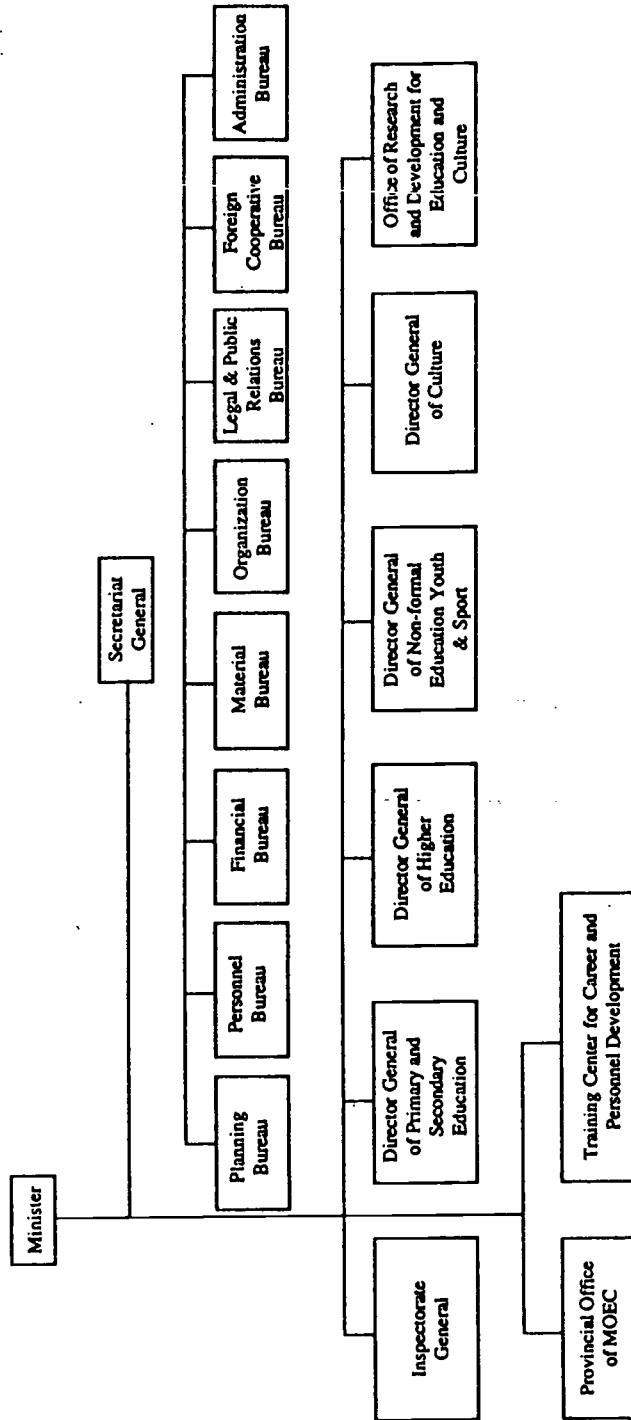
Each group consists of one or more clusters and one cluster comprises one or more study programmes. At present, there are thirty-nine clusters and 100 study programmes for the senior secondary technical and vocational level and twelve study programmes for the junior level that can be chosen by each school based on the conditions of teachers and faculties in the respective schools and the needs of the region.

The following diagrams and charts describe further the Indonesian TVE system.



### Organization of the Ministry of Education and Culture

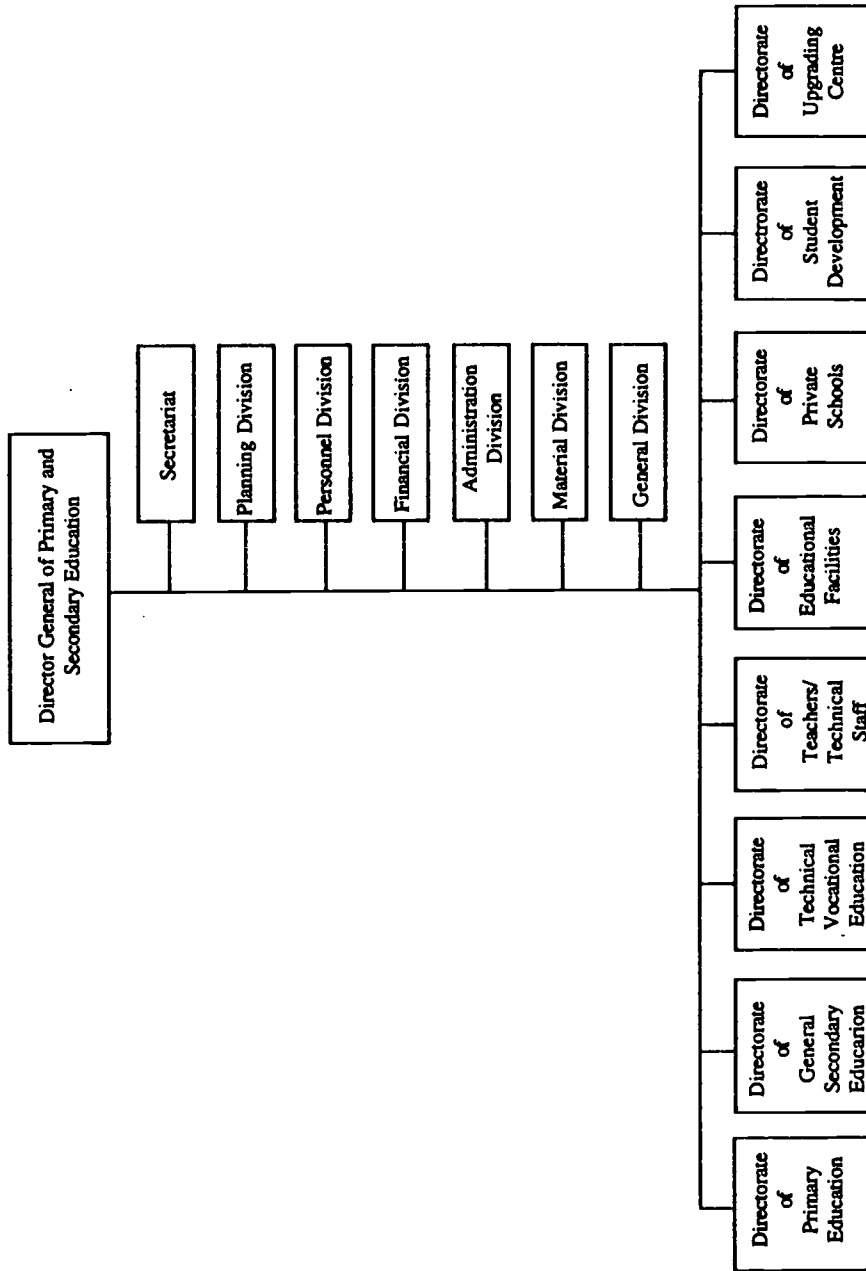
#### ORGANIZATION OF THE MINISTRY OF EDUCATION AND CULTURE



Reference: Directorate of Technical and Vocational Education, Ministry of Education and Culture of Indonesia

Organization of the Directorate General of Primary and Secondary Education (DGPSE)

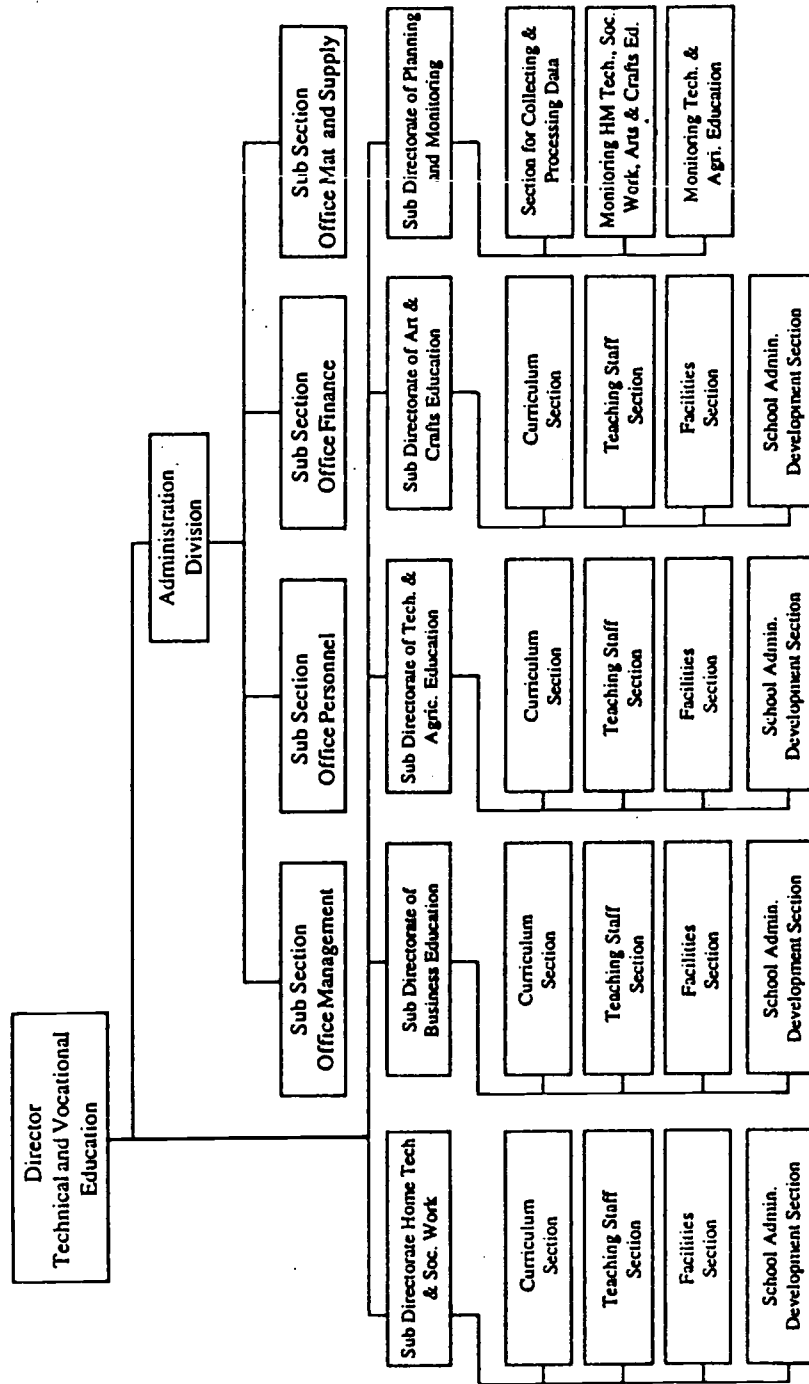
ORGANIZATION OF THE DIRECTORATE GENERAL OF PRIMARY AND SECONDARY EDUCATION (DGPSE)



Reference: Directorate of Technical and Vocational Education, Ministry of Education and Culture of Indonesia

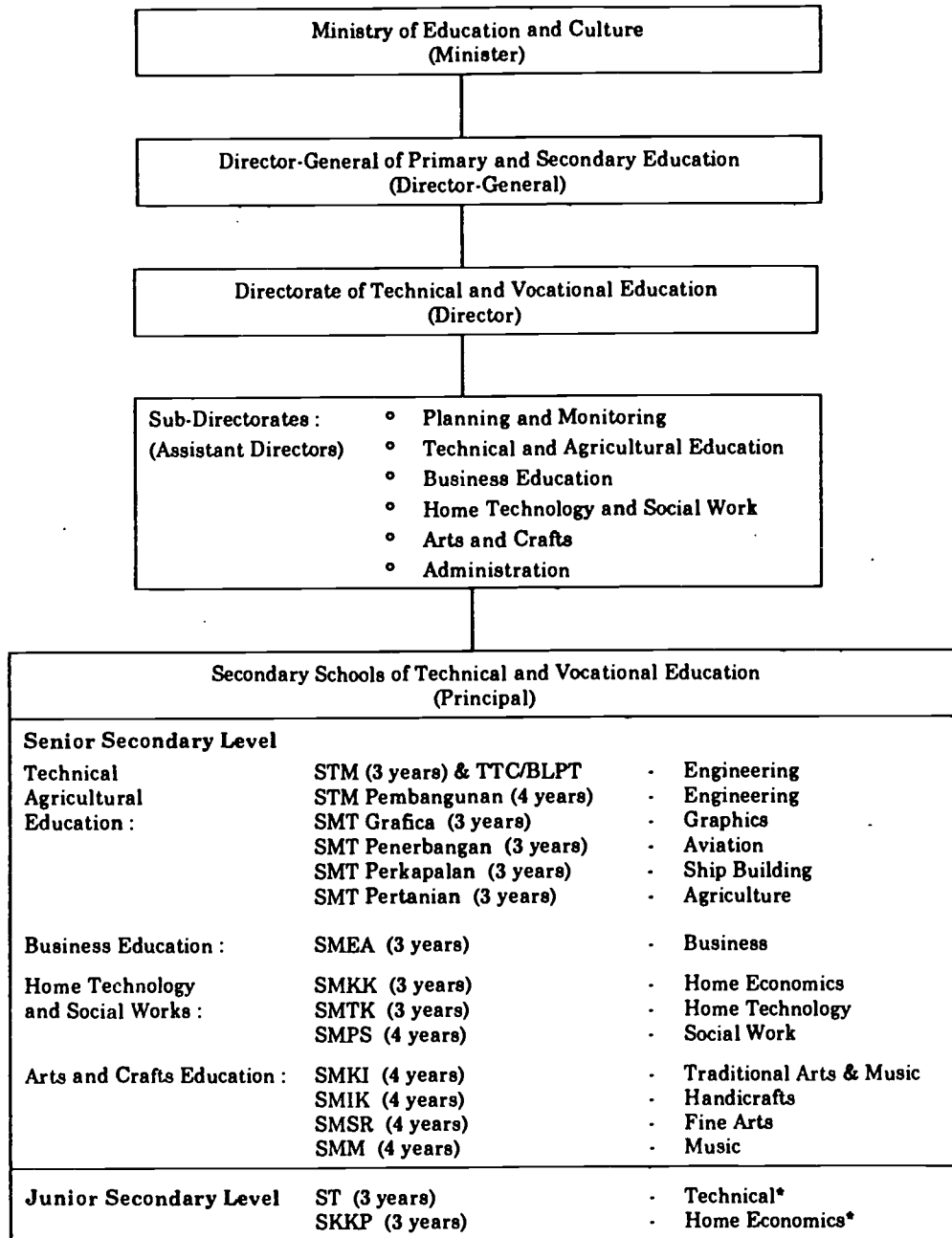
Organizational Structure of the Directorate of Technical and Vocational Education (DTVE), MECS

ORGANIZATIONAL STRUCTURE OF THE DIRECTORATE OF TECHNICAL AND VOCATIONAL EDUCATION (DTVE), MECS



References: Directorate of Technical and Vocational Education, Ministry of Education and Culture of Indonesia

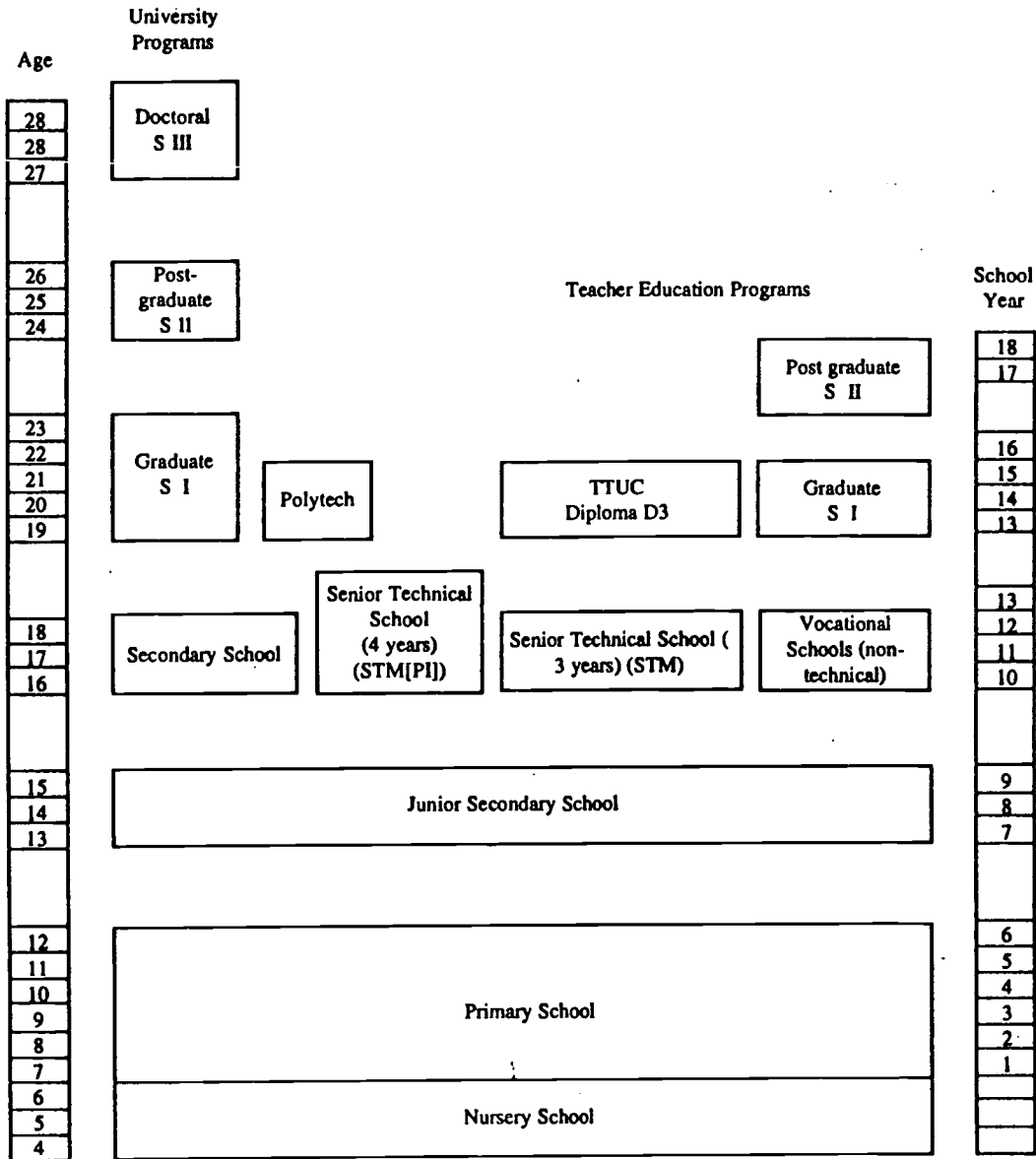
Summary of Technical and Vocational Education  
within the Indonesian Education Hierarchy



\* Being phased out.

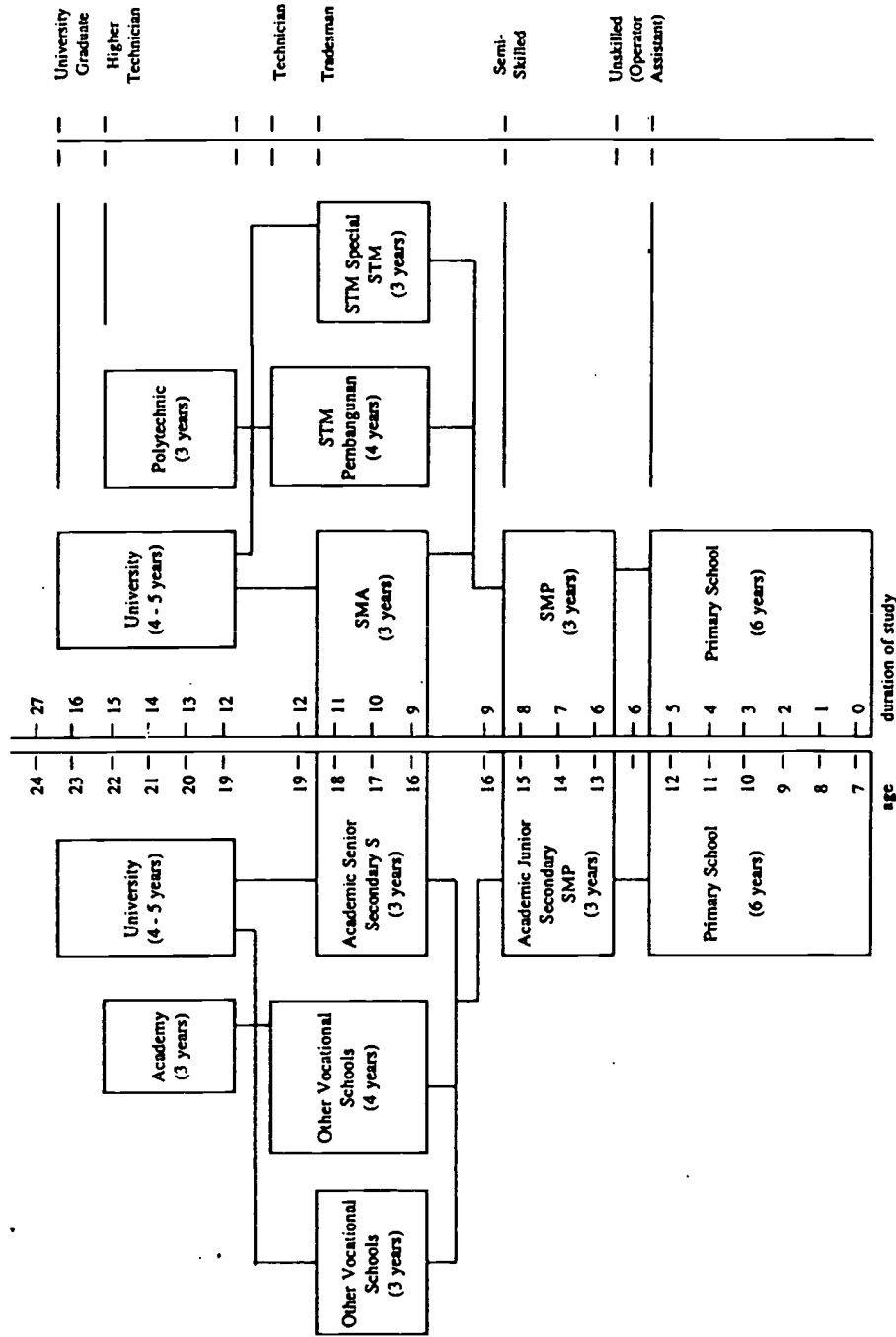
Reference: Directorate of Technical and Vocational Education, Ministry of Education and Culture of Indonesia

STRUCTURE OF EDUCATION SYSTEM



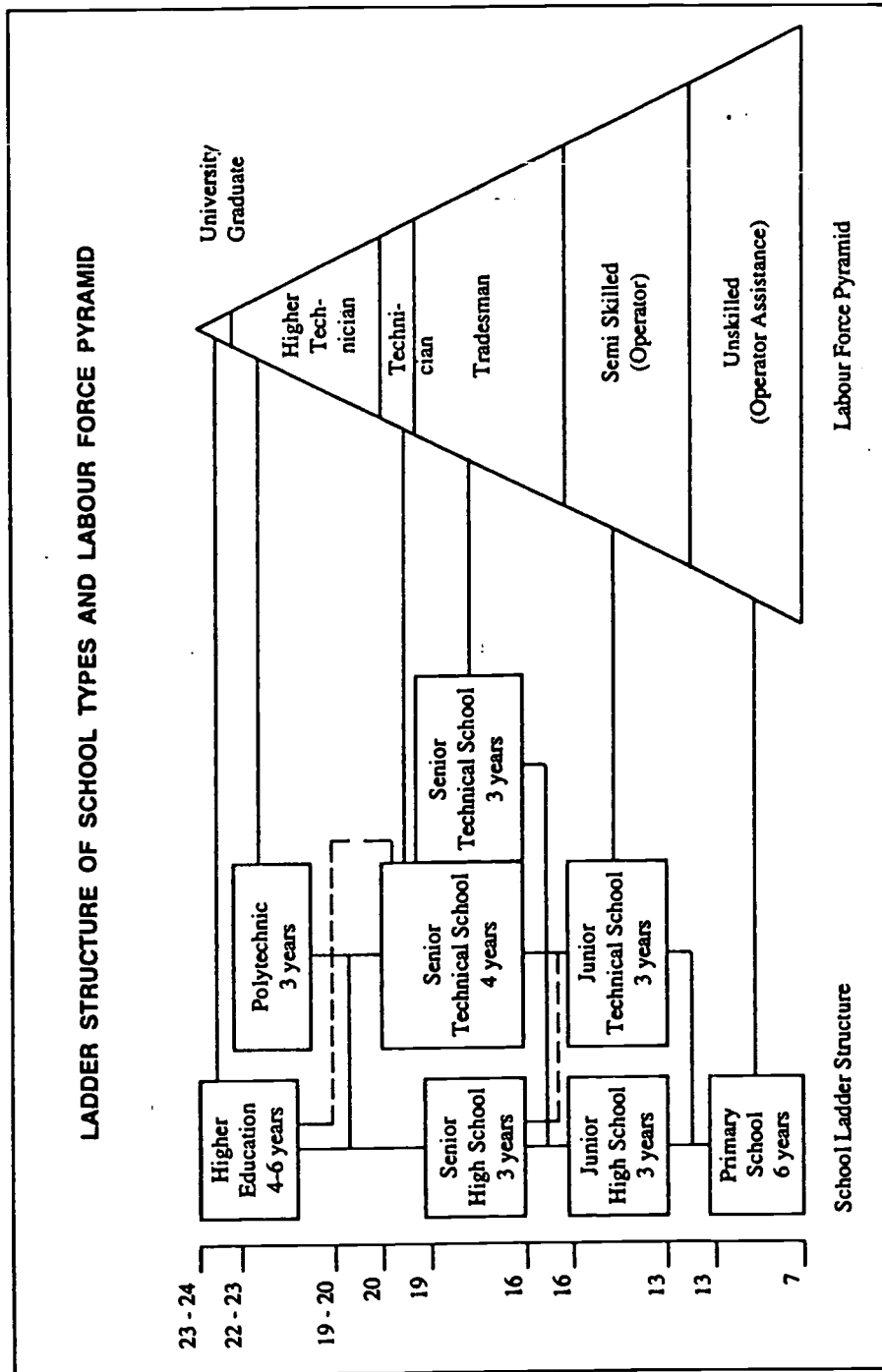
Reference: Directorate of Technical and Vocational Education, Ministry of Education & Culture of Indonesia

SCHOOL LADDER, TYPES AND LEVEL OF SKILLS WITHIN DTVE



References: Directorate of Technical and Vocational Education, Ministry of Education and Culture of Indonesia

Ladder Structure of School Types and Labour Force Pyramid



Reference: Directorate of Technical and Vocational Education, Ministry of Education and Culture of Indonesia

Number of Public Secondary Technical and Vocational Schools  
and Student Population, 1989 - 1990

No.	School Types	Number of School	Students Population
1.	ST : Junior Technical School	193	75,757
2.	SKKP : Junior Home Economic School	74	14,810
3.	STM : Senior Technical School	149	129,367
4.	STM Pembangunan : Senior Technical High School (4 years)	8	7,771
5.	SMEA : Senior Business and Commerce School	324	233,257
6.	SMKK : Senior Home Economic School	84	36,292
7.	SMTK : Senior Home Technology School	6	4,459
8.	SMPS : Senior Social Work School	14	6,326
9.	SMKI : Senior Traditional Art and Performance School	8	4,383
10.	SMM : Senior Music School	3	571
11.	SMSR : Senior Fine & Art School	6	2,478
12.	SMT Perkapalan : Senior Ship Building School	1	630
13.	SMT Grafika : Senior Printing School	2	938
14.	STM Kimia : Senior Chemical School	3	992
15.	STM Pertanian : Senior Agricultural School	31	14,288
	<b>TOTAL</b>	<b>916</b>	<b>532,319</b>

Reference: Directorate of Technical and Vocational Education, Ministry of Education and Culture of Indonesia.



**List of Clusters and Study Programmes within Curriculum 1984  
for Schools of Technical and Vocational Education**

No.	Group	Cluster	Study Programme	Duration of Study (Year)	Type of School		
1	2	3	4	5	6		
1.	Agriculture and Forestry	1. Agronomy	1.1 Food-plant and Horticulture Production	3 years	STM Pertanian and SMT Pertanian		
			1.2 Plantation Production	3 years			
			1.3 Piantation Production	4 years	SPbMA		
		2. Animal Husbandry	2.1 Livestock Production	3 years	SMT Pertanian		
			3. Fishery	3.1 Fish Culture Production	3 years	SMT Pertanian	
		3.2 Fish Catching Techniques		3 years	SMT Pertanian		
		4. Agricultural Mechanization	4.1 Agricultural Mechanic	3 years	SMT Pertanian		
			5. Agricultural Product Processing	5.1 Agric. Product Processing	3 years	STM Pertanian and STM Pertanian	
		5.2 Agric. Product Processing		4 years			
		6. Mixed Farming	6.1 Mixed Farming	3 years	SMT Pertanian, SFM		
		2.	Engineering	1. Building	1.1 Civil Drawing	3 years	STM
					1.2 Surveying and Mapping	3 years	STM
					1.3 Building Construction	3 years	STM
					1.4 Civil Construction	3 years	STM
					1.5 Building Construction	4 years	STM Pembangunan
					1.6 Civil Construction	4 years	STM Pembangunan
				2. Electronics	2.1 Industrial Electronics	3 years	STM
					2.2 Communication Electronics	3 years	STM
2.3 Industrial Electronics	4 years				STM Pembangunan		
2.4 Communication Electronics	4 years				STM Pembangunan		
2.5 Transmission Technology	4 years				STM Pembangunan		
2.6 Telecommunications	4 years				STM Pembangunan		
3. Electrical	3.1 Domestic Electrical Installation			3 years	STM		
	3.2 Industrial Electrical Installation			3 years	STM		
	3.3 Industrial Electrical Installation			4 years	STM Pembangunan		
	3.4 Electrical Power			4 years	STM Pembangunan		
4. Metal Works	4.1 Metal Fabrication			3 years	STM		
	4.2 Machining			3 years	STM		
	4.3 Advanced Machining			4 years	STM Pembangunan		
5. Mechanical	5.1 General Mechanics			3 years	STM		
6. Automotive	6.1 Auto Mechanics			3 years	STM		
	6.2 Automotive			4 years	STM Pembangunan		
7. Industrial	7.1 Process Control			4 years	STM Pembangunan		
	7.2 Metal and Glass Instrumentation			4 years	STM Pembangunan		
8. Refrigeration and Air-conditioning	8.1 Refrigeration and Air conditioning			4 years	STM Pembangunan		
9. Mining Geology	9.1 Mining Geology			4 years	STM Pembangunan		
10. Chemistry	10.1 Industrial Chemistry			3 years	STM		
	10.2 Industrial Chemistry			4 years	STM Pembangunan		
	10.3 Analytical Chemistry			4 years	STM Pembangunan		

No.	Group	Cluster	Study Programme	Duration of Study (Year)	Type of School		
1	2	3	4	5	6		
3.	Business and Office Administration	11. Textile Manufacturing	11.1 Spinning 11.2 Weaving 11.3 Knitting 11.4 Textile Finishing 11.5 Spinning 11.6 Weaving 11.7 Knitting 11.8 Textile Finishing	3 years 3 years 3 years 3 years 4 years 4 years 4 years 4 years	STM STM STM STM STM Pembangunan STM Pembangunan STM Pembangunan STM Pembangunan		
		12. Graphics	12.1 Graphics 12.2 Graphic Production	3 years 3 years	SMT Grafika SMT Grafika		
		13. Shipbuilding	13.1 Maintenance and Repair of Ships Structure 13.2 Maintenance and Repair of Ships Engine 13.3 Welding and Ship Building 13.4 Ship Design 13.5 Ship Repair and Maintenance 13.6 Ship Engine Repair and Maintenance	3 years 3 years 3 years 3 years 3 years 3 years	STM Perkapalan STM Perkapalan STM Perkapalan STM Perkapalan STM Perkapalan STM Perkapalan		
		14. Airframe	14.1 Aircraft Frame Construction 14.2 Aircraft Body Frame Construction	3 years 3 years	STM Penerbangan STM Penerbangan		
		15. Aircraft Production	15.1 Machining - Milling 15.3 Machining - Lathe Work	3 years	STM Penerbangan STM Penerbangan		
		16. Aircraft Accessories	16.1 Aircraft Electrical Installation 16.2 Aircraft Electrical Installation	3 years 3 years	STM Penerbangan STM Penerbangan		
		17. Aircraft Maintenance	17.1 Aircraft Mechanics and Air Frame 17.2 Aircraft Electrics and Instrumentation 17.3 Aircraft Electronics	3 years 3 years 3 years	STM Penerbangan STM Penerbangan STM Penerbangan		
		18. Interior Design and Fittings	18.1 Interior Fitting	3 years	STM		
		19. Shipping Transportation	19.1 Navigation 19.2 Engineering	4 years 4 years	SPM SPM		
		1. Finance	1.1 Accounting	3 years	SMEA		
		2. Office Administration	2.1 Office Practice 2.2 Secretarial	3 years 3 years	SMEA SMEA		
		3. Business	3.1 Marketing Management	3 years	SMEA		
		4. Co-operatives	4.1 Co-operative Marketing Management 4.2 Co-operative Investment and Loan Management	3 years 3 years	SMEA SMEA		
		5. Tourism	5.1 Travel	3 years	SMEA		
		4.	Health and Social Work	1. Social Work	1.1 Social Medical Work 1.2 Social Corrective Work 1.3 Social Rehabilitation Work 1.4 Social Public Development Work 1.5 Social Rural Public Development Work	4 years 4 years 4 years 4 years 4 years	SMPS SMPS SMPS SMPS SMPS

No.	Group	Cluster	Study Programme	Duration of Study (Year)	Type of School
1	2	3	4	5	6
5.	Home Economics	1. Beautician	1.1 Beautician	3 years	SMTK and SMKK
		2. Food Technology	2.1 Nutrition	3 years	SMTK and SMKK
			2.2 Food Services (Restaurant and Catering)	3 years	SMTK and SMKK
			2.3 Bakery (Breads and Cake)	3 years	SMTK and SMKK
3. Tourism	3.1 Hotel Management	3 years	SMTK and SMKK		
6.	Culture	4. Home Economics	4.1 Food	3 years	SMKK
			4.2 Clothing	3 years	SMKK
			4.3 Housekeeping	3 years	SMKK
			1. Fine Arts	1.1 Decoration	4 years
2. Handicrafts	1.2 Graphic Communication	4 years	SMSR		
	1.3 Craft Design	4 years	SMSR		
	1.4 Painting	4 years	SMSR		
	1.5 Sculpture	4 years	SMSR		
	2.1 Painting/Basketry	4 years	SMIK		
3. Performing Arts	2.2 Ceramics	4 years	SMIK		
	2.3 Metal Craft	4 years	SMIK		
	2.4 Wood-carving	4 years	SMIK		
	2.5 Batik	4 years	SMIK		
4. Music	2.6 Leather work	4 years	SMIK		
	3.1 Traditional Music	4 years	SMKI		
3.2 Traditional Dance	3.2 Traditional Dance	4 years	SMKI		
	3.3 Traditional Wayang Puppet Theatre	4 years	SMKI		
3.4 Arts Theatre	4 years	SMKI			
4.1 Performance	4 years	SMM			



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