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Indonesia

A Country Profile



July 1979

Office of Foreign Disaster Assistance
Agency for International Development
Washington, D.C. 20523

INDONESIA: A COUNTRY PROFILE

prepared for

The Office of U. S. Foreign Disaster Assistance
Bureau for Private and Development Cooperation
Agency for International Development
Department of State
Washington, D. C. 20523

by

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The profile on Indonesia is one in a series designed to provide baseline country data in support of the planning, analysis and relief operations of the Office of U. S. Foreign Disaster Assistance (OFDA). Content, scope and sources have evolved over the course of the last three years, and no doubt will continue to do so. The relatively narrow focus is intentional. To avoid redundancy, some topics one might expect to find in a "country profile" are not covered here.

If the information provided can also be useful to others in the disaster assistance and development communities, so much the better. Every effort is made to obtain current, reliable data; unfortunately it is not possible to issue updates as fast as changes would warrant. A cautionary note, therefore, to the reader: statistics are indicators at best, and if names and numbers matter, the bibliography will point to a current source.

We invite your comments and corrections. Address these and other queries to OFDA, AID, as given above.

Second Edition
July 1979

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ÓFDÁ COUNTRY PROFILES: APRIL 1979

AFRICA

Angola**
Cape Verde
Chad
Djibouti
Ethiopia
Madagascar
Mali
Mauritania
Niger*
Sahel Transportation Survey
Senegal
Somalia
Upper Volta
Zaire

ASIA

Afghanistan
Bangladesh
Burma
India
Indonesia
Malaysia
Nepal
Pakistan
Philippines

CARIBBEAN

CARICOM Regional Profile
Dominican Republic
Haiti

LATIN AMERICA

Bolivia
Brazil
Chile
Ecuador
Guatemala
Honduras
Nicaragua
Peru

NEAR EAST

Lebanon**
Turkey

SOUTH PACIFIC

Fiji
Tonga
Western Samoa

* in preparation
** out of print

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Geographic Codes

AID.....497
State Region.....EA
FIPS.....ID

Country Names

Official: Republic of Indonesia
Local: Republik Indonesia
Short: Indonesia

Official Holidays

New Year's Day.....January 1
'Idul Adha*.....February 6
Muharram I*.....February 27
Good Friday*.....
Maulid Muhammad*.....May 7
Ascension Day*.....May 20
Independence Day.....August 17
Mi' Radj Muhammad*.....September 17
'Idul Fitri*.....November 19 ,20
Christmas Day.....December 25

* variable dates

Currency Exchange Rate

Unit of currency is rupiah
Rp. 626.25 = \$1 US (May 1979)

Consulates

Medan Jalan Imam Bonjol 13. Tel 322200

PO.....Alphonse Laporta
ECO/COM....David M. Walker
CON.....John McD. Scott, Jr.
ADM.....Larry J. Kozak
BPAO.....Frank L. Jenista

Surabaya, Jalan Raya Dr. Sutomo 33. Tel 67545

PO.....Philip Gill
ECO/COM....(vacancy)
CON.....(vacancy)
ADM.....Robert W. Biddle
AID.....James R. Hoath
BPAO.....J. Brooks Spector

Treaties and Agreements

With US:

Agricultural commodities; debt rescheduling under agricultural agreements
Atomic energy
Aviation; air transport agreement
Customs
Defense; military equipment, sale and furnishings of; payment to US of net profits from Indonesian sale of defense articles furnished by US.
Economic cooperation agreements
Finance
Health; concerning establishment of US naval medical research unit in Indonesia
Informational media guarantees
Mapping
Narcotic drugs
Peace Corps
Postal matters
Publications
Satellites
Surplus property
Telecommunications

Multilateral

Asian Development Bank (ADB), ANRPC, Association of Southeast Asian Nations (ASEAN), CIPEC, ESCAP, FAO, G-77, International Atomic Energy Agency (IAEA), IBA, IBRD, ICAO, ICO, IDA, IFC, IHO, ILO, IMCO, IMF, IPU, ISO, ITC, NAM, OPEC, UN, UNESCO, UPU, WHO, WMO, WTO.

Travel and Visa Information

Visas

Tourist visa, stay up to 1 month, 1 entry, 2 photos, \$2.80. Business visa, stay up to 5 weeks (can be extended), 1 entry, 2 photos, \$4.80. Landing fee \$15 if stay is over 30 days. \$2.20 additional per person included in passport. Obtain visa before arrival. Allow 48 hours. Apply Embassy, Washington, D.C. 20036; or Consulate General in New York 10021 or San Francisco 94104; and check specific requirements.

Health

Smallpox certificate required of travelers one year of age and over arriving from all countries. Yellow fever certificate required of travelers arriving from infected areas from countries in endemic zones.

Consulates

Embassy: 2020 Massachusetts Avenue, N.W.
Washington, D.C. 20036

Consulates: New York 10021
San Francisco 94104

Ethnic and Sociocultural Groups

Deutero-Malay racial stock and Malayo-Polynesian languages characterize population. At least 300 ethnic/tribal groups (speaking one of 250-400 languages or dialects) exist, but only ten have more than 2 million members. Javanese are largest, dominant ethnic group (50 million in Java in early 1970'S). 10 million Sundanese, 5 million Madurese also live on Java. On Sumatra, Atjehnese, Minangkabau and Batak each number at least 2 million, coastal Malays, 1.5 million. On Sulawesi, 2 million Makasarese and 3 million Buginese largest groups in south, Minhasa group important in north. Balinese (over 2 million) and Sasak (1.5 million) are major groups in Lesser Sundas. 3.5 million ethnic Chinese constitute largest non-Malay group; other minorities include Arabs, Indians, Eurasians and Europeans.

Languages

Most languages belong to Malayo-Polynesian family, have same basic grammatical structure. The official language, Indonesian (Bahasa Indonesia), is derived from trade Malay, the lingua franca for the entire East Indies during the colonial period. Many Indonesians are bi- or trilingual. Major languages include: Javanese, spoken by 40-50% of population, Sundanese (15%), Madurese and Malay (each spoken by 5-10% of population). Balinese, Minangkabau, Batak, Makasarese and Buginese are regionally important. Several non-Malayo-Polynesian languages spoken in Eastern Indonesia (Halmahera and nearby islands, Timor, Alor, Irian Jaya) are lumped together as Papuan, though not all are related.

English is officially the second language; it is widely taught in schools, spoken by many leaders.

Literacy

Rate 64% for both sexes, 1976. Sex differential greater in older population; small in young people, ages 15 to 24, with 89% of males literate and 80.2% of females.

Religions

90% Muslim, 5% Christian, predominately Protestant, 3% Hindu. Belief in Hindu-Buddhist world-view and indigenous animism underlies majority's surface observance of Islam. Conflict between these nominal (Abangan) Muslims and highly politicized Orthodox minority (Santri) has been divisive force since the late 1800's, when contact with Arabian mainstream of Islam became more frequent. Inclination toward mysticism, meditation strong in Indonesian tradition, while Islam has always had active political role. Conflict between Christians and Santri over Christian missionary activity in outer islands.

Hindu minority centered in Bali; most Chinese Indonesians retain belief in Buddhism, Taoism, Confucianism.

Time Zones

3 time zones covered by Indonesian Standard Time:

- (1) Western - Sumatra, Java, Madura, Bali; Meridian 105° E.
EST + 12
- (2) Central - Kalimantan, Sulawesi, Nusa Tenggara; Meridian 120° E. EST + 13
- (3) Eastern - Maluku, West Irian; Meridian 135° E.
EST + 14

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National Government

Indonesia is an independent republic with modified military regime. Highly centralized government based on broadly-phrased 1945 constitution. President, executive and commander of armed forces, assisted by 30 member cabinet of his appointees, responsible to him. The People's Assembly (MPR) which meets at least once every 5 years, elects president and sets national policy guidelines (though president determines actual policy), has 920 members, half concurrently members of House of Representatives (DPR), chief legislative group. Other members include elected regional delegates, government appointed representatives of military and functional groups, representatives of political parties in proportion to elected strength in DPR. Of 460 members of DPR, 360 are directly elected and 100 appointed, 75 from military. Many elected officials on both national and regional levels are retired military personnel.

Judicial branch, directed by Minister of Justice, divided into local courts of first instance, regional high courts of appeal, and Supreme Court (essentially court of review). In civil cases, 3 different legal systems (adat, or customary law, Islamic, and European) apply to Indonesians, Europeans, and foreign Orientals.

Political Status

The government-backed quasi-party, Organization of Functional Groups (GOLKAR), won more than 60% of popular vote in 1977 parliamentary elections which 2 new parties, Unity Development Party (uniting several Muslim parties) and Indonesia Democracy Party (including former Nationalist and Christian parties), contested. Suharto elected unanimously by MPR (March 1978) for another 5 year term. Expanded cabinet continues blend of civilian technocrats and military personnel.

Criticism of present regime has been strongest among youth groups (students, intellectuals) and Muslim advocates of political Islam. Controversial issues include domination of economy by foreign capital (particularly Japanese) and excessive military influence in government.

Regional Organization

Three level system of regional legislative councils elected by direct universal adult suffrage and corresponding system of regional executive councils, elected by and from among legislative council members. Twenty-seven first level provinces (Portuguese East Timor annexed 1976 is 27th) have 2 levels of subdivisions--regencies and municipalities on intermediate level (281), and villages on lowest level. In some areas; subdistricts added between regency and village. Respective administrators are governors, regents, and mayors, appointed by central government, and chiefs, chosen locally.

Key Leaders

(As of June 1979)

President.....Suharto, Gen.
Vice President.....Malik, Adam
Coordinating Minister for Economics,
Finance and Industry.....Wijoyo Nitisastro, Dr.
Coordinating Minister for Politics
and Security.....Panggabean, Maraden, Gen.
Coordinating Minister for Public
Welfare.....Surono, Rekosimejo, Gen.
Min. of Agriculture.....Sudarsono Hadisaputro
Min. of Communications.....Rusmin Nurjadin, Air Marsh.
Min. of Defense.....Yusuf, Mohammad, Gen.
Min. of Education & Culture.....Yusuf, Daud, Dr.
Min. of Finance.....Wardhana, Ali, Dr.
Min. of Foreign Affairs.....Mochtar Kusumaatmaja
Min. of Health.....Suarjono Suryaningrat, Maj.
Gen.
Min. of Home Affairs.....Machmud, Amir, Gen.
Min. of Industries.....Suhud, A.R.
Min. of Information.....Murtopo, Ali, Lt. Gen.
Min. of Justice.....Mujono, Maj. Gen.
Min. of Manpower & Transmigration.....Zain, Harun Al-Rasyid, Prof.
Min. of Mining & Energy.....Subroto, Prof. Dr.
Min. of Public Works.....Purnomosidi Hajisaroso, Dr.
Min. of Religion.....Alamsyah, Ratu Prawiranegara,
Lt. Gen. (Ret.)
Min. of Social Affairs.....Saparjo, Maj. Gen. (Ret.)
Min. of Trade & Cooperatives.....Prawiro, Radius
Min. of State & State Secretary.....Sudharmono, Lt. Gen.

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Min. of State for Development &
Environment Control.....Salim, Emil, Dr.
Min. of State for Reform of State
Apparatus.....Sumarlin, Johannes B. Dr.
Min. of State for Research & Technology..Habibie, B.J. Dr.

Host Disaster Plan

Directorate General for Natural Disasters and Social Aid funds (under Ministry of Social Affairs), at central government level, and regional social affairs offices, at local level, direct disaster relief functions.

The Coordinating Advisory Board on National Disasters (BP2BA) is inter-ministerial body for policy - and decision - making. Members include Minister for People's Welfare.

The Team for Coordination of Action to Cope with Natural Disasters executes decisions of BP2BA. Minister of Social Affairs is team chairman, Director General for Natural Disasters and Social Aid funds is secretary; all team members are from government agencies which deal with natural disasters.

Similar coordinating teams formed at provincial and kabupaten levels; all teams set up under decree of Minister for People's Welfare. Provincial and kabupaten teams are headed by governor and bupati, respectively.

Disasters classed as minor, localized events with relatively small human and material losses, and major, events requiring efforts of national government.

Operational activities broken down into social welfare (immediate aid to victims) and technical, which is further divided into emergency and rehabilitation phases, and preventive measures to combat recurrent disasters. Technical operations carried out by appropriate ministries, social generally by Ministry of Social Affairs.

(Plan includes disaster history, descriptions of natural conditions responsible for occurrence: faults, earthquake zones, volcanic zones, etc. Some indications of probability, seasonality).

Mission Preparedness Assessment

Mission believes GOI unlikely to request US aid except in event of major disaster. GOI sensitive to outside interference; Director General forbidden to request outside aid except in extreme cases. MDRO, who has disaster experience, feels GOI is prepared.

Red Cross

Indonesian Red Cross (PMI) customarily involved in distribution of clothing and/or medicine by government, closely connected with International Red Cross, Council of Churches in Indonesia.

Contact List*

Indonesian Director General for Natural Disasters: Harun Al Rasjid.

* as of July 1979

US Mission*

AMB.....Edward E. Masters

DCM.....Paul F. Gardner

MDRO.....Bernard J. Salvo

* as of March 1978

Major Volags

The Red Cross: Indonesian Red Cross, Jalan Abdul Muis 66, Jakarta.

Cable: INDONCROSS Jakarta. Tel: Gambir 44849 (represented on Board - has good disaster organization at all levels as well as a disaster plan). RC in charge of emergency assistance (evacuation, nursing and medical care, temporary shelter and distribution of food and clothing).

Voluntary agencies have good cooperation with Government.

CRS: Tromol Pos. No. 4, Palmerah, Jl., Let. Jen. S. Parman, Kavanm 19 Atas Slipi, Jakarta. Cable: CATHWEL Jakarta. Telex: 0112738. Tel: 59429.

WCC: Council of Churches in Indonesia, POB 2357, Salemba Rava
10, Jakarta. Cable: OIKOUMENE: Jakarta. Tel: 82317.

International Organizations

UNDP: 14 Jalan M.H. Thamrin, Jakarta. Cable: UNDEVPRO
Jakarta. Telex: UNDEVPRO 0114178. Tel: 40980.

ILO, FAO, WHO - each has country representative in Jakarta
UNESCO, IBRD, IMF, UNICEF - also represented.

Host Resources

Food aid generally supplied as emergency measure for 1-2 weeks;
in exceptional situations may be extended for 3-6 months by regional
social affairs office. Emergency kitchens used.

Clothing and medicine dispensed in cases of great need.

Shelter: temporary housing arrangements either in schools and
private buildings or in emergency barracks. Government may distribute
cash or building materials for this purpose after disaster.

Tools: agricultural tools distributed when necessary; often
in conjunction with resettlement.

Other Resources

Title II Food for Peace commodities have been requested by CRS
and CWS for disaster use in past.

World Food Program senior representative (UNDP disaster relief
officer) is in close contact with US MDRO and Volag country directors.
It has been suggested that GOI should look to UNDP resident repre-
sentative for coordination of all disaster relief assistance, bilat-
eral and mulilateral.

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Disaster Rations

Main foods: rice, cassava, maize flour; accompaniments: vegetables, soya beans, mung beans, golden mung beans, coconut oil, fish, meat. Acceptable alternative staples: wheat flour, sorghum, In West Irian roots and tubers are the main staples. Pork consumed by non-Moslems.

Early Warning Systems

Volcanological survey observation posts on several volcanoes: Merapi, Kelud, Semeru, Slamet, Agung and others., Mt. Merapi, most dangerous volcano, monitored by telecommunications network warning system.

As of 1972 no advance warning system for other types of disasters.

Disaster Types and History

Earthquakes, volcanic eruptions, floods, landslides, strong winds, drought, tsunamis, agricultural pests.

Indonesia has annual average of 350 earthquakes, 10 of them major, of which 1 to 3 are destructive. Earthquakes occurring on August 14, 1968, in central Sulawesi, on February 23, 1969, in Majene area, South Sulawesi, and on February 9, 1975, in Sukabumi, West Java, are among 9 most severe since 1900. Volcanic eruptions causing damage to surrounding area occur approximately once every three years. During early 1979 (February, March, April), 538,405 people were affected and 207 died as result of natural disasters (strong winds, flood, fire, and landslides).

(See also Physical Geography).

US Volags

<u>Agency</u>	<u>Personnel Int'l/Local</u>	<u>Programs</u>
Agricultural Development Council	2/-	Ec & Dev Pl, - Ed, Food Prod & Agr
American National Red Cross	-	Equip & Mat Aid
The Asia Foundation	2/17	Coops & Loans, Ed, Nutr, Pop & Fam Serv, P & Bus Admin
Asian-American Free Labor Institute	1/-	Ind Dev, Med & PH
Assoc. for Voluntary Sterilization	-	Med & PH, Pop & Fam Serv
CARE	26/88	CD, C.H.P., Ed, Med & PH, Nutr, Women
Carmelite Fathers	62 US & Local	CD, C.H.P., Ed, Med & PH
The Carr Foundation	-	Communications
Catholic Medical Mission Board	-	Med & PH
Catholic Relief Services - USCC	2/16	CD, Ed, Equip & Mat Aid, Food Prod & Agr, Med & PH, Women, Y
Christian and Missionary Alliance	150	Communications, Ed
Christian Children's Fund	1/15	SW, Y
Christian Nationals' Evangelism Commission	-/6	Ed, Ind Dev, SW

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<u>Agency</u>	<u>Personnel</u> <u>Int'l/Local</u>	<u>Programs</u>
Church World Service	5/-	C.H.P., Food Prod & Agr, Pop & Fam Serv
Compassion	-/23	SW, Y
Conservative Baptist Foreign Missionary Society	7/18	Med & PH
Credit Union National Assoc. (CUNA)	-	Coops & Loans
Crosier Fathers	-	CD, Coops & Loans, Ed
Darien Book Aid Plan	-	Equip & Mat Aid
Divine Word Missionaries	278/144	Communications, Ed, Food Prod & Agr, Med & PH
Dunwoody Industrial Institute	3/-	Ed
The Evangelical Alliance Mission	53/-	Ed, Med & PH
The Ford Foundation	-	CD, Ec & Dev Pl, Ed, Food Prod & Agr, Pop & Fam Serv, Women
Foster Parents Plan	2/134	CD, Coops & Loans, Med & PH, Nutr, SW, Women, Y
International Educational Development	2/130	Communications
International Executive Service Corps	varies	P & Bus Admin
The International Eye Foundation	-	Med & PH
International Voluntary Service	1/-	CD

<u>Agency</u>	<u>Personnel</u> <u>Int'l/Local</u>	<u>Programs</u>
Helen Keller International	-	Med & PH, Nutr, Y
Lutheran Church in America	9/-	Ed, Med & PH
MAP International	-	Equip & Mat Aid Med & PH
Maryknoll Fathers	7/-	CD, Ed
Maryknoll Sisters of St. Dominic	8/-	CD, Coops & Loans, Ed, Med & PH, SW, Women
Medical Mission Sisters	30/18	Med & PH, Nutr, Women
Mennonite Central Committee	7/-	Ed, Food Prod & Agr, Ind Dev, Med & PH
Mennonite Economic Development Associates (MEDA)	-	Coops & Loans, Ind Dev
Mission Aviation Fellowship	43/-	Communications
The Mustard Seed	-	C.H.P.
National 4-H Foundation of America	local staff	Ed
New Tribes Mission	48/-	Ed, Med & PH
Oberlin Shansi Memorial Association	1/-	Ed
Obor	-	Communications, Ed
Overseas Education Fund of the League of Women Voters	1/-	CD, Ed, Nutr, Women
Overseas Missionary Fellowship	18/-	Ed, Ind Dev

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<u>Agency</u>	<u>Personnel Int'l/Local</u>	<u>Programs</u>
Oxfam-America	-	CD, Coops & Loans, Food Prod & Agr
The Pathfinder Fund	-	Pop & Fam Serv
Planned Parenthood Federation of America	-	Pop & Fam Serv
The Population Council	2/-	Pop & Fam Serv
Project Concern	3/13	Med & PH, Nutr, Pop & Fam Serv, Women
Public Administration Service	1/-	P & Bus Admin
The Rockefeller Foundation	-	Ed, Food Prod & Agr, Med & PH
The Salvation Army	2/1305	Ed, Med & PH, SW
Save the Children Federation/ Community Development Foundation	3/6	CD, Ed, Med & PH, SW
Southern Baptist Convention	34/336	Ed, Med & PH
Stelios M. Stelson Foundation	-	Equip & Mat Aid, Med & PH
Summer Institute of Linguistics	36/-	Communications, Ed
Unevangelized Fields Mission	32/60	Ed, Food Prod & Agr, Med & PH
United Church Board for World Ministries (UCC)	6/-	CD, Ed
United Methodist Committee on Relief	-	CD, Coops & Loans, Food Prod & Agr, Med & PH, Pop & Fam Serv

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<u>Agency</u>	<u>Personnel Intl/Local</u>	<u>Programs</u>
United Presbyterian Church/USA	-	Ed
Volunteers in Asia	15/-	Ed, Food Prod & Agr
World Neighbors	1/17	Food Prod & Agr, Pop & Fam Serv
World University Service	varies	Communications, CD, Food Prod, & Agr, Med & PH
World Vision Relief Organization	2/51	CD, Ed, Food Prod & Agr, Med & PH
Worldwide Evangelization Crusade	28/15	Ed, Med & PH
YMCA	-/10	CD, Ed

Key:

CD.....Community Development
 C.H.P.....Construction, Housing & Planning
 Coops & Loans.....Cooperatives, Credit Unions & Loans
 Ec & Dev Pl.....Economic and Development Planning
 Ed.....Education
 Equip & Mat Aid.....Equipment and Material Aid
 Food Prod & Agr.....Food Production and Agriculture
 Ind Dev.....Industrial Development
 Med & PH.....Medicine and Public Health
 Nutr.....Nutrition
 Pop & Fam Serv.....Population and Family Services
 P & Bus Admin.....Public and Business Administration
 SW.....Social Welfare
 Y.....Youth

Population

1971 census arrived at enumerated population of 119,232,499. With population estimated at more than 145 million in 1978, Indonesia is fifth most populous country in the world and has largest population by far of Southeast Asian countries. As result of similar trends in both crude birth and crude death rates, growth rate has remained fairly constant at 2.0 - 2.2% for past 20-25 years. Population is young with about 52% under 20 years of age. Population control policies, discouraged by government in early years, have been actively encouraged in 1970's. Family planning programs received considerable support despite opposition of orthodox Muslim leaders.

1971-74 Population ('000)

<u>Area</u>	<u>Sq. Km.</u>	<u>1971</u>	<u>1974</u>
Java and Madura	132,187	76,030	79,004
Sumatra	473,606	20,801	22,658
Kalimantan	539,460	5,153	5,574
Sujawesi	189,216	8,525	8,964
Bali)		2,120	2,217
Nusa Tenggara)		4,499	4,718
Maluku)	570,000	1,090	1,187
Irian Jaya)		N.A.	1,007
(West Irian))			
		118,218	125,329

* 1971 census

East Timor: 14,925 sq. km.; 636,553 (1972 mid-year estimate; 688,000 (mid-1976 UN estimate).

(Source: Europa Yearbook, 1978, Vol. 11).

Regional Distribution

Population is extremely unevenly distributed. Highest density on Java and Madura - 63.8% of population on 6.7% of land or over 1,400 people per square mile (in 1971). Irian Jaya with one-fifth of total land area had lowest density, 5 per square mile. For Indonesia as a whole, density was 150 people per square mile in 1971, estimated at 184 per square mile in 1976.

The country is predominantly rural; 4 out of 5 persons lived in rural areas in 1976. Degree of urbanization differs greatly within archipelago. High urban proportions found in provinces of Jakarta, South Sumatra, Jambi, East Kalimantan, and South Kalimantan. Considerable migration to cities, especially to Jakarta, occurred in 1960's. Since World War II, government has sponsored resettlement programs (transmigration), moving families from Java to outer islands, but movement has been slow, offset to large degree by reverse flow to Jakarta.

During the period 1961-1971, provinces experiencing largest annual growth rate were Jakarta Raya (4.6%), Lampung (in Sumatra) (5.1%), Central Kalimantan (3.5%), and Maluku (3.2%). Lowest growth rates were recorded for Yogyakarta (1.1%), South Kalimantan and South Sulawesi (both 1.4%).

Distribution By Province

<u>Province</u>	<u>Population</u> <u>(In Thousands)</u>	<u>Percent</u> <u>Total Indonesian</u> <u>Population</u>	<u>Percent</u> <u>Urban</u>
Java 1)			
Jakarta.....	4,576	3.8	100.0
West Java.....	21,633	18.1	12.4
Central Java.....	21,877	18.3	10.7
Special Territory of Yogyakarta.....	2,490	2.0	16.4
East Java.....	<u>25,527</u>	<u>21.4</u>	<u>14.5</u>
Subtotal.....	<u>76,102</u>	<u>63.8</u>	<u>18.0</u>
Sumatra			
Special Territory of Aceh.....	2,009	1.7	9.8
North Sumatra.....	6,623	5.5	17.7
West Sumatra.....	2,793	2.3	17.2
Riau.....	1,641	1.4	13.3
Jambi.....	1,006	0.8	29.1
South Sumatra.....	3,444	2.9	29.0
Bengkulu.....	519	0.4	11.7
Lampung.....	<u>2,777</u>	<u>2.3</u>	<u>9.9</u>
Subtotal.....	<u>20,813</u>	<u>17.4</u>	<u>17.8</u>
Kalimantan			
West Kalimantan.....	2,020	1.7	12.8
Central Kalimantan.....	699	0.6	15.7
South Kalimantan.....	1,699	1.4	26.7
East Kalimantan.....	<u>733</u>	<u>0.6</u>	<u>41.1</u>
Subtotal.....	<u>5,152</u>	<u>4.3</u>	<u>21.8</u>
Sulawesi			
North Sulawesi.....	1,718	1.4	19.5
Central Sulawesi.....	914	0.8	8.0
South Sulawesi.....	5,189	4.3	19.1
Southeast Sulawesi.....	<u>714</u>	<u>0.6</u>	<u>7.3</u>
Subtotal.....	<u>8,535</u>	<u>7.2</u>	<u>16.4</u>

<u>Province</u>	<u>Population</u> (In Thousands)	<u>Percent</u> <u>Total Indonesian</u> <u>Population</u>	<u>Percent</u> <u>Urban</u>
Other Islands			
Bali.....	2,120	1.8	9.8
West Nusa Tenggara.....	2,202	1.8	8.1
East Nusa Tenggara.....	2,295	1.9	5.6
Maluku.....	1,089	0.9	13.3
Irian Jaya.....	923	0.8	16.3
Subtotal.....	8,630	7.2	9.4
Total.....	119,232	100.0	17.4

Note - 1) Includes Madura

Source: Area Handbook

Urban Areas

<u>City</u>	<u>Population</u> <u>1971</u>	<u>City</u>	<u>Population</u> <u>1971</u>
Jakarta.....	5 million	Medan.....	1 million
Surabaya.....	2 million	Palembang.....	614,000
Yogyakarta.....	500,000	Banjarmasin....	277,000
Semarang.....	633,000	Pontianak.....	194,000
Bandung.....	2 million	Ujung Pandang..	497,000
Cirebon.....	194,000	Bogor.....	183,000
Malang.....	429,000	Padang.....	187,000

Note: Variations in 1971 population: Jakarta (5,849,000), Surabaya (1,269,000), Yogyakarta (394,000), Bandung (1,152,000), Cirebon (187,000) and Palembang (620,000).

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Overall Health Status

Disease Prevalences and Types

Water-borne diseases, including typhoid, hepatitis, and bacillary dysentery, are serious health problem in rural and overcrowded urban areas. Enteroparasitic diseases are common as are various eye and skin infections. Trachoma still occurs.

Most tropical diseases are found in Indonesia. Malaria, endemic throughout country except in some highland areas and in urban areas of Jakarta and Surabaya, has had resurgence in recent years; peak incidence from May through July, highest among infants and children. Tuberculosis, traditionally leading cause of mortality, affected 1 to 4% of population in early 1970's; highest incidence in age group 14 through 45. Cholera is widespread with 2,000 cases each year; fatality rate has generally declined, but outbreak in Jakarta 1977. Plague, endemic in Java until 1960's (reservoir of wild rodent vectors), recurred in early 1970's; limited now to occasional outbreaks. An estimated 100,000 cases of leprosy are distributed throughout country. Yaws, still endemic in interior lowlands of Irian Jaya, has reappeared in several other provinces. Schistosomiasis occurs only in Sulawesi (Lindu Valley). 20 of 27 provinces were affected by dengue hemorrhagic fever in 1976, mainly in urban areas and in children 0-14 years. Rabies is confined to a few islands. Accidents and cardio-vascular diseases are on the increase.

Immunization programs for diphtheria, tetanus, and pertussis are carried out in health centers; pregnant women receive immunization against tetanus neonatorum. Unsystematic programs also against measles and polio. Environmental conditions, malnutrition limit effectiveness of control programs.

Vital Statistics

*Births per 1,000 population, 1971	42
*Deaths per 1,000 population, 1971	20
infant deaths per 1,000 live births, 1971	126
Life expectancy at birth, 1971	42

* 1976 projection (per 1,000 population): births, 35-40; deaths, 16-17. (US Bureau of Census. World Population 1977).

Health Facilities and Services

Health structure administered on central, provincial, district (regency), sub-district, and village levels. According to Indonesian Government source, the country has nearly 1,000 hospitals (468 government, 530 private) with total of 71,350 beds. 5,000 to 7,000 health centers holding daily clinics and 5,000 maternity centers are located throughout the country. A modern, well-equipped 300 bed hospital being built by national oil company is scheduled for completion in 1970's.

Number of General Hospitals and Beds By Province

<u>Province</u>	<u>Government</u>		<u>Private</u>	
	<u>Hospital</u>	<u>Beds</u>	<u>Hospital</u>	<u>Beds</u>
1. Daerah Istimewa Aceh	12	851	-	-
2. Sumatera Utara	51	6,711	22	1,880
3. Sumatera Barat	11	1,234	2	108
4. Riau	10	651	3	120
5. Jambi	4	348	-	-
6. Sumatera Selatan	23	2,329	4	391
7. Bengkulu	3	153	-	-
8. Lampung	4	500	-	-
9. Dki Jakarta	9	2,591	9	1,848
10. Jawa Barat	28	3,431	9	1,392
11. Jawa Tengah	41	5,883 ²	11	1,294
12. D.I. Yogyakarta	6	822	5	1,062
13. Jawa Timur	47	6,230	20	2,022
14. Bali	9	1,102	-	-
15. Nusa Tenggara Barat	6	403	1	48
16. Nusa Tenggara Timur	10	595	8	528
17. Kalimantan Barat	18	892	1	40
18. Kalimantan Tengah	8	238	-	-
19. Kalimantan Selatan	10	576	2	226
20. Kalimantan Timur	10	781	2	99
21. Sulawesi Utara	6	859	10	991
22. Sulawesi Tengah	5	362	-	-
23. Sulawesi Selatan	20	1,318	5	551
24. Sulawesi Tenggara	7	273	2	71
25. Maluku	5	440	3	355
26. Irian Jaya	9	897	6	105
Indonesia	372	40,470	125	13,131

Source: Indonesia - Directorate General of Health Services

Health Personnel

There is a critical shortage of health personnel. Because most doctors prefer to practice in cities, the doctor/patient ratio, estimated to be 1 per 20,000 on national level, may be as low as 1 per 100,000 in rural areas.

Indonesian Department of Health gives number of medical and health personnel (1977/78) as follows: physicians, 9,805; nurses and midwives, 27,711; other health care workers, 33,237.

In some rural areas without physicians health care is in hands of dukun, traditional shamanistic practitioners. The 50,000 dukun function as midwives, circumcisors, masseurs, herbalists, exorcists, and fortune tellers. Government has attempted to integrate dukun into modern health sector through training in modern medicine, especially midwifery.

Diet

Estimated caloric intake per day: man: 2,300; woman: 1,900
Recommended caloric intake per day: man: 2,800; woman: 2,200

FAO Established Requirements:

calories 2157, including:

<u>Protein</u>	<u>Fat</u>	<u>Carbohydr</u>	<u>Calcium</u>	<u>Phosp</u>	<u>Iron</u>	<u>Vit-A</u>	<u>NA</u>	<u>K</u>
44g	108g	242.7g	800mg	800mg	14mg	1U		

Meals

Breakfast of rice, vegetables and fish or meat; also bread, tea. Lunch similar to breakfast, plus eggs if available. Supper similar to lunch. This is wealthy minority pattern.

Lower income majority eats 2 meals: breakfast of bowl of cassava or rice and sweet potatoes, main meal of rice with vegetables, small piece meat or fish.

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Fruit (bananas, mangoes, breadfruit, or papaya) and sometimes tea or soybean milk completes meal. Third meal eaten when income permits.

Foods

Flour: rice common, wheat acceptable, in Western style bread or deep fried cakes.

Fat: coconut oil; peanut oil probably acceptable.

Vegetables: beans, carrots, cabbage, asparagus.

Meat: beef, goat, lamb. Though pork is taboo to Muslims, considerable amount is eaten.

Fowl: chicken, duck, eggs of both eaten.

Grain: (and other staples) - rice, corn, sago, cassava, taro, sweet potatoes, soybeans. Bulgur moderately acceptable.

Fish: fresh or saltwater eaten fresh/dried/preserved.

Beverages: tea, coffee (from coffee powder). NFDN liked by children. All drinks very sweet.

Children's diet: rice, some fruits and vegetables; too little meat. Vitamin A deficiency common in young children.

Nutritional Status

Malnutrition is chronic and widespread, though incidence varies. In mid-1970's there were serious food shortages in Central Java, scarcities in East Java, West Java, Bali, Nusa Tenggara, and especially in East Nusa Tenggara.

PEM, often severe, occurs in children 0-5, kwashiorkor among poor in dry seasons. Beri-beri occurs in agricultural areas where cassava is main food and in areas affected by flood or drought. Vitamin A deficiency often leads to xerophthalmia, main cause of blindness in

young children. Iron deficiency anemia, of nutritional origin, aggravated by helminths, is seen most often in pregnant women, children of low income groups, and in rural labor force. Goiter is endemic in North and West Sumatra, East Java, and Bali.

Utensils

Cooking - pots for rice, skillet or kualii (round bottom) for vegetables. Steel knives.

Eating - Spoons, glass for drinks.

Stove - Kerosene, gas, electric, or charcoal inside house.

Housing

Indonesia has a serious housing shortage. In 1976, there was a housing backlog of over 440,000 units a year, with production of only 230,000 houses per year.

Rural housing consists mainly of simple shelters easily constructed of locally available materials - bamboo and nipa palm predominating. Except for parts of Kalimantan and Sulawesi where communal living in longhouses is common, most dwellings are small (usually one room), single family units grouped in compact villages. Homes and public buildings surround open village yards. Home furnishings are few and simple. Kerosene, rice straw, coal, or wood provide fuel and light.

Urban housing presents more complicated pattern and problems. Styles and materials: brick and masonry homes and apartment dwellings of high and middle income groups, bamboo and nipa palm bungalows of laborers and low income workers, and makeshift shacks of urban poor.

Standards of sanitation are generally low. Only 6% of rural people have safe water supplies. Central water systems in Jakarta and other major cities are treated, but poor maintenance of water mains allows some contamination. Waterborne wastes of cities ultimately empty into rivers.

Average household (person or persons occupying a part or the whole of a building or shelter and usually sharing a kitchen) consists of 4-5 individuals.

Overview of Economy

Economy is centered in primary sector (agriculture, forestry, fishing, and mining) which provides almost all exports. In 1976, agriculture (excluding forestry) accounted for 30.5% of GDP and about 60% of work force; mining contributed 11.7% of GDP. In secondary sector, manufacturing accounted for 11.4% of GDP while tertiary sector (services) remains large, with share of GDP being 36.1% in 1976. Government owns and operates rail and road networks, air and seaport facilities, telecommunications and most power systems, most air transport. It controls domestic oil distribution and refinery facilities, has major role in other mining enterprises, operates cash crop, agricultural estates and lumber operations. Government companies involved in manufacturing and trade.

Agriculture, though still largest area of employment, declining in relative importance; development of mineral resources and associated industries is fastest growing economic sector. Indonesia is major Southeast Asian oil producer; output peaked at 614 million barrels in 1977-78, slight decline in production expected in future. Production and exports of liquified natural gas began 1977-78. Nickel and bauxite production rising. The Asahan aluminum-hydro-electric power dam project, based on using bauxite deposits in North Sumatra, expected to begin production in 1982. Copper, tin also mined in quantity. Reserves substantial; much potentially productive territory as yet unexplored. Other industry geared to production of essential consumer goods to replace imports: textiles, fertilizers, cement, basic metals, chemicals, food and tobacco most important. Most large industries state-owned or based on foreign investment. Most workers employed in small-scale "cottage" manufacturing, service or repair facilities.

Principal handicaps to further economic development are 1) lack of skilled managers, technicians, and businessmen, 2) population pressure, especially in fertile farming areas of Java and Madura, 3) unemployment and underemployment, worst in agricultural sector, likely to increase with modernization of farming and manufacturing. Rate of unemployment and underemployment thought to be close to 20% of labor force in 1976.

The economy grew at 7% in 1977. Inflation rate remained at about 7% throughout 1978 but was expected to rise due to effects of 33.6% devaluation of the rupiah against dollar in 1978. For second consecutive year, balance of payments surplus about US \$1 billion in 1977; downturn expected 1978-79. Development policies have been set out in series of Five Year Plans spanning 30 year period, ending 1999. Latest, Repelita III, launched April 1979, continues development pol-

icies of first two, stresses more equitable distribution of development benefits.

Foreign Aid

Foreign assistance to Indonesia has been largely coordinated by the Inter-Governmental Group on Indonesia (IGGI), a consortium of 14 donor countries and international financial institutions.

Indonesia is recipient of USAID PL 480 Title I commodities. During FY 1978, PL 480 Title I rice and wheat accounted for 15% and 16%, respectively, of those grain imports.

GNP

GNP at 1976 market prices: \$36,120 million, \$280 per capita. GNP per capita (real) growth rates for 1960-76 and 1970-76: 3.1% and 5.3% respectively.

Source: 1978 World Bank Atlas. GNP at market prices rounded to US \$ tens of millions. GNP per capita rounded to nearest US \$10.

1977 GNP \$43 billion; per capita about \$310.
(National Basic Intelligence Factbook, 1979)

Imports

Major imports include rice, wheat, textiles, chemicals, iron and steel products, machinery, transport equipment, consumer durables. 1978 value: \$6.7 billion. 1977 breakdown: 27% plant and capital equipment, NA manufactured consumer goods, 47% raw materials and food, 12% petroleum.

Japan supplied 30% of imports in 1977; US, 14%; West Germany, 8%.

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Exports

Principal exports are petroleum, timber, coffee, rubber, tin, palm oil, tea, pepper, tobacco. 1978 value: \$11.2 billion - 3% above 1977. Oil exports were slightly higher at \$7.4 billion; non-oil exports increased nearly 8% to \$3.8 billion, mainly because of higher world prices.

40% of exports went to Japan in 1977; 28% to US; 9% to Singapore.

Overview of Agriculture

Agriculture is still dominant (but not growing) economic sector. More than three-fifths of population engaged in agricultural activity in 1976. GOI gave top priority to agricultural development in 1st and 2nd Five Year Development Plans; emphasis on increase in production, rural incomes, employment opportunities. Major products are rice, rubber, cassava, corn, coffee, palm oil, copra, and tobacco. Small-scale subsistence farming predominates; large estates are devoted to single export crop; combination subsistence/small holder commercial farms concentrate on cash crops. Rice production by far most important. 50% of total production; most desired food staple. Its cultivation, processing and sale occupies most of rural population. Rice cultivation centered on Java (over half of total 21 million acres planted in rice were on Java in early 1970's) because of fertile soil, availability of irrigation. Double cropping, up to 5 harvests in 2 years, possible under these conditions. Corn is staple in parts of Sulawesi, eastern Java, Madura, Lombok, Timor. In Maluku and swampy lowlands of Irian Jaya, sago is principal crop, in highland Irian Jaya, sweet potatoes and taro. Corn and cassava are principal dry field crops. Secondary crops, important as food and cash sources for small farmers, include soybeans, green beans, peanuts, sweet potatoes and other tubers, onions, red peppers. Fruit usually consumed by grower (bananas, breadfruit, citrus fruits, durian, papaya, pineapple, mango, mangosteen common).

Major commercial crops include rubber (most produced by small holders, some on plantations in Sumatra and western Java); coffee (most smallholder acreage on Sumatra, estates in eastern Java); oil palm (cultivated mainly on estates in Medan area of northeast Sumatra); copra (coconut trees throughout islands, but stands for copra production chiefly in outer islands); sugar (estate crops in central and eastern Java). Other important export crops include tea, pepper, kapok, cinchona bark, hard fibers; less important are cacao, cloves, nutmeg, mace.

Production

Heavy rainfall in 1978 (following 2 years of drought), permitting extra rice plantings where secondary crops would normally have grown, along with greater fertilizer use and less wereng pest damage produced record 17.7 million tons rice crop (11% over 1977 when country imported 2.6 million tons). By end of year, government rice stocks at 1.3 million tons.

Corn production declined from 3.0 million tons (1977) to 2.5 million tons, and cassava production down slightly to 12.2 million tons - both reflecting expanded rice acreage.

1978 copra output of 1.5 million tons did not meet domestic demand for coconut oil. Some of palm oil production, up about 6% to 525,000 tons, diverted to domestic use. Other crops showing slight declines in 1978 were sugar, 1.1 million tons; peanuts, 400,000 tons; soybeans, 500,000 tons; coffee, 192,000 tons; and tobacco, down 10% to 70,000 tons.

Fertilizer production has shown sharp increase. 1.7 million tons were produced in 1978 of which urea production was 1.5 million, ammonium sulfate most of rest. About 300,000 tons are exported.

Animal husbandry is not a major farm activity. Livestock's primary role as draft animals; meat, hides are by-products. Cattle raised for meat only in Sulawesi and Nusa Tenggara. Poultry and egg production increasing around large cities. Livestock numbers 1975 ('000 head): cattle, 6,150; sheep, n.a.; goats, 10,350; pigs, 2,600; horses, 637; buffaloes, 2,243; chickens, 93,881; ducks, 14,095.

Forestry growing in importance, especially for export earnings, (Timber second to oil as export earner). Managed teakwood production on Java; elsewhere eastern Kalimantan is prime area for commercial timber.

Fishing industry has great potential due to productivity, extent of coastal waters. Limited by poor technique and lack of fishing management, the industry harvests only about 23% of renewable marine resources annually. Sector among poorest in economy. Total catch in 1975 from inland and ocean waters was 1,389.9 thousand metric tons.

Planting and Harvesting Dates

<u>Crops</u>	<u>Harvest Period</u>	<u>Bulk of Harvest</u>
Maize (Java).....	Whole year round	Dec. - Feb.
Rice (Java).....	Whole year round	Apr. - June
Sugar cane (Java).....	Apr. - Dec.	June - Oct.
Sugar (Java).....	Campaign from May through Nov.	
Sweet potatoes (Java)...	Whole year round	Oct. - Dec.
Cassava (Java).....	Whole year round	Aug. - Oct.
Vegetables.....	Whole year round	July - Dec.
Fruits.....	Whole year round	---
Pulses..... ²	Whole year round	July - Dec.
Palm kernels.....	Whole year round	---
Soybeans (Java).....	Whole year round	July - Sept.
Groundnuts (Java).....	Whole year round	Feb. - July
Coconuts.....	Whole year round	---
Coffee.....	Whole year round	May - Sept.
Cacao.....	Whole year round	Apr. - July
Tea ²	Whole year round	---
Tobacco:		
Estates (Java) ³	Oct. - Dec.	---
Estates (Sumatra) ³	May - July	---
Farm grown (Java).....	May - Dec.	Aug. - Nov.
Abaca (Manila) ²	Whole year round	---
Sisal and Cantala ²	Whole year round	---
Rubber ²	Whole year round	---

¹ Depending on the kinds of fruits the various harvest seasons are spread over the year.

² Monthly production does not vary significantly, therefore an indication as to the bulk of harvest period cannot be stated.

³ Indication of the bulk of harvest period cannot be stated.

FAO World Crop Harvest Calendar

Imports

Favorable agricultural trade balance maintained first 9 months of 1978. Imports value slightly higher than 1977 level of \$1.1 billion. Rice imports dropped to 1.84 million tons (\$600 million value); wheat imports increased slightly to 1.2 million tons. Imports of sugar, soybeans, and coconut oil were considerably higher in 1978. The import value of cotton was up about 10% to \$110 million, reflecting both increased volume and higher prices. Agricultural imports from US increased 31% in 1978.

Exports

Despite volume gains, coffee export value reflected declining world prices in 1978. Rubber exports, \$500 million. Palm oil exports declined to 400,000 tons as more was used domestically. Total agricultural exports were expected to reach \$1.8 billion in value in 1978. Tea, tobacco, and pepper are other important agricultural exports.

Climate

Climate, because of location entirely within tropics and between two continental land masses, is uniformly warm and humid with no pronounced seasonal variation. (Year-round 80% humidity, temperature range 66°-88° F in lowlands). Rainfall ranges from 40"-60" annually in Nusa Tenggara Islands, through 60"-80" north Java, Madura and north Sulawesi and 90"-100" in Sumatra, Kalimantan, southern Sulawesi and parts of Irian Jaya to 150" in scattered mountain areas. Rainfall distribution is rather even - 100 storm days average for country as a whole, though southeast monsoon brings relatively dry season (from July-October) to eastern Java and Nusa Tenggara. Northwest monsoon off Asiatic mainland brings rain to entire archipelago (Nov. - March). Though amount of rainfall is unpredictable and droughts and flooding occur, disastrous typhoons and gales are infrequent.

Precipitation

<u>City</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Jakarta	11.8	11.8	8.3	5.8	4.5	3.8	2.5	1.7	2.6	4.4	5.6	8.0
Manokwari	12.0	9.4	13.2	11.1	7.8	7.2	5.4	5.6	4.9	4.7	6.5	10.5
Mapanget	18.6	13.8	12.2	8.0	6.4	6.5	4.8	4.0	3.3	4.9	8.9	14.7
Penfui	15.2	13.7	9.2	2.6	1.2	0.4	0.2	0.0	0.0	0.7	3.3	9.1
Pontianak	10.8	8.2	9.5	10.9	11.1	8.7	6.5	8.0	9.0	14.4	15.3	12.7
Tabing	13.9	10.1	12.2	14.5	12.8	11.7	10.5	13.7	16.2	20.1	20.5	19.2
Tarakan	10.9	10.2	14.0	13.9	13.5	12.6	10.3	12.4	11.6	14.3	15.2	13.4

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Temperatures

<u>City</u>		<u>Jan</u>	<u>Apr</u>	<u>Jul</u>	<u>Oct</u>	<u>Extreme</u>
Jakarta	Max	84	87	87	87	98
	Min	74	75	73	74	66
Manokwari	Max	86	86	86	87	93
	Min	73	74	74	74	68
Mapanget	Max	85	86	87	89	97
	Min	73	73	73	72	65
Penfui	Max	87	89	88	92	101
	Min	75	72	70	72	58
Pontianak	Max	87	89	89	89	96
	Min	74	75	74	75	68
Tabing	Max	87	87	87	86	94
	Min	74	75	74	74	68
Tarakan	Max	85	86	87	87	94
	Min	73	75	74	74	67

Land forms

Indonesia is bordered on the north and east by Malaysia, with which it shares Kalimantan, and by the Philippines; on the south by Australia and the east by Papua-New Guinea.

Five islands (Java, Sumatra, Sulawesi, Kalimantan, Irian Jaya) constitute nine-tenths of 735,865 square mile land area; remainder consists of 13,662 islands and islets, 1,000 of which are inhabited. Part of Malay archipelago, Indonesia stretches 3,200 miles along the equator. The major western islands rise from shallow waters of Sunda Shelf; New Guinea and associated islands from Australian Continental Shelf; deep (6'-21,000') waters intervene between two shelves.

Most highly volcanic region in world - 100 active volcanoes, most on Java. Chain of volcanic mountains runs along west coast of Sumatra, center of Java, Bali and Lesser Sundas. Sulawesi and the Moluccas are the highest points of undersea volcanic ranges. No volcanic activity on Kalimantan or Irian Jaya, though both are mountainous.

Only Java and north Sumatra have extensive dry flatlands; tidal swamps extend deep into interior of Java, Sumatra and Kalimantan. Most lowlands in archipelago consist of rolling hills or swamps, often heavily forested. Watercourses abound, more important for irrigation than transportation.

Land Use

Degree of development depends to a large extent on soil fertility, population density. One-third of coastal land on Sumatra and Kalimantan is swampland, uncultivable due to problem soils, in contrast to fertile Javanese swamps, which have been developed as farmland. Nearly two-thirds of land area is forested: 80% of Kalimantan, 23% of Java, 14% of Bali, 70% of northern and eastern Sumatra and much of Irian Jaya. Over one-half of commercial timber enterprises and concession areas on Kalimantan; managed teakwood production important on Java. Less than 10% of total land area, 45 million acres, under cultivation in early 1970's, most in small holder production. Estate holdings, 75% government-owned, numbered 2 million acres. 60 million acres considered potentially productive forest reserves, 50% under forest concessions, 7.5 million acres being exploited. Most unused arable land located in southern Sumatra, Sulawesi, southeastern Kalimantan.

Differences in agricultural land use on various islands pronounced. Cultivation intensive on Java, Madura, Bali. Irrigation common, rice dominant crop, most land worked as small holdings. On outer islands agriculture extensive, land worked as estates and large concessions, crops diversified, irrigation less significant. 20% of cultivated land irrigated, 15% on Java. Most irrigation by river dam system.

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Land Use, 1975
('000 hectares)

Arable land.....	13,350*
Land under permanent crops.....	5,250*
Permanent meadows and pastures....	9,875+
Forest and woodland.....	121,400*
Other land.....	<u>31,260</u>
Total Land Area.....	181,135
Inland water.....	9,300
Total Area.....	190,435

* FAO estimate
+ Unofficial figure

Source: FAO, Production Yearbook as cited in Europa Yearbook 1978,

River Systems

Java - largest rivers on east coast are Solo and Brantas; on west Citarum and Cimanuk. All navigable by small boats in rainy season.

Sumatra - eastern rivers are important means of communication. Asahan is navigable in part by steamers; Rokan is navigable for 70 miles inland; Siah navigable to Port of Pakanbaru, 100 miles up-stream; Kampar is navigable by ocean steamers for 18 miles; Inderagiri navigable by ocean steamers; Batanghari, largest Sumatran river, has maximum navigability of 500 miles; Musi navigable by ocean-going vessels to Palembang (54 mi.), further by steam launches to 200 miles inland, by small craft to 330 miles inland.

Kalimantan - rivers important lines of settlement, transportation. Kapuas is navigable for 300-400 miles inland from Pontianak to Sintang, depending on tides, season. Joined by cross branches to Kapuas Murung and Kahajan. Barito is navigable for two-thirds of its course by steamers. Mahakam is only large river on east coast.

Sulawesi - rivers are short and unimportant for transportation.

Nusa Tenggara - rivers short and non-navigable.

Irian Jaya - largest river in Indonesia is Mamberamo.

Coastal Areas

Seas generally calm. Only areas of disturbance are extreme southeastern islands, seas to north of Sulawesi and in Strait of Malacca. Visibility good, tides moderate, currents generally sluggish. Waters shallow except between Asian and Australian continental shelves. Weather less dangerous than shallow seas and coral reefs. Siltation problem in many harbors, especially at river mouths.

Mountains

Two long mountain systems intersect in Sulawesi and Halmahera: two parallel ridges, continuation of western Burmese chain, run through Sumatra, Java, Bali and Timor, curve through SE islands to Seram and Buru; another runs SW through Philippines into Sulawesi and Halmahera N-S ridges. Mountains on Kalimantan run NE - SW down center of island - Irian, Pegunungan, Schwaner ranges - with lower ridges SW and W to coast. Pegunungan Madke, with peaks to 16,500', divides north Irian Jaya from south.

Principal mountain systems grouped by island:

Java: mountain range runs E-W, flanked in north by lowlands, south by limestone ridges; broken into five sections. Most extensive are Priangan Mountains in west Java, including Cikurai, 9,255'.

Sumatra: Bukit Barisan, average height 5-12,000', rises abruptly along west coast.

Kalimantan: tangled mountain complex with little volcanic activity. Upper Kapuas range divides western Indonesian portion of island from Sarawak. Schwaner chain, highest point Mount Raja, 7,414', divides watershed of Kapitas from that of southern Kalimantan. Muller chain runs between Made Plateau and Kapuas chain.

Sulawesi: great central range averages over 10,000' in height.

Maluku: most islands mountainous.

Nusa Tenggara: Flores, Sumba and Bali all mountainous, volcanic.

Irian Jaya: split by east-west mountain system with peaks over 16,000 ft.

Volcanoes

<u>Name</u>	<u>Height</u>	<u>Activity</u>	<u>Location</u>	<u>Last Eruption</u>
Kerinci	12,467	Steaming	Sumatra	
Rinjani	12,224	Active	Lombok	1964
Semeru	12,060	Active	Java	1963
S.Jamat	11,247	Active	Java	1953
Raung	10,932	Steaming	Java	
Dempo	10,634	Steaming	Sumatra	
Weljrang	10,354	Dormant	Java	
Agung	10,308	Active	Bali	1964
Sundoro	10,285	Dormant	Java	
Ceremay	10,098	Active	Java	1938
Gede	9,705	Active	Java	1949
Merapi	9,551	Active	Java	1969
Marapi	9,485	Dormant	Sumatra	
Tambora	9,355	Dormant	Sumbawa	
Peuetsagoe	9,121	Dormant	Sumatra	
Bromo	9,088	Steaming	Java	
Papandayan	8,602	Steaming	Java	
Guereudong	8,497	Active	Sumatra	1924
Sumbing	8,225	Active	Sumatra	1926
Tandikat	8,166	Active	Sumatra	1924
Sinabang	8,041	Steaming	Sumatra	
Guntur	7,379	Dormant	Java	
Galunggung	7,113	Active	Java	1920
Amburombu	7,051	Active	Indonesia	1924
Sorikmarapi	7,037	Active	Sumatra	1917
Petarangan	7,005	Active	Java	1939
Sibayak	6,870	Steaming	Sumatra	
Tangkubanperahu	6,637	Rumbling	Java	
Sangeang	6,394	Active	Sangeang	1953
Kaba	6,358	Active	Sumatra	1941
Awu	6,102	Active	Sangihe Is.	1966
Siau	5,853	Active	Siau Is.	Jan, '74
Kelud	5,679	Active	Java	1966
Batur	5,636	Active	Bali	1963
Belerang	5,636	Steaming	Sumatra	
Temate	5,627	Active	Indoensia	1938

<u>Name</u>	<u>Height</u>	<u>Activity</u>	<u>Location</u>	<u>Last Eruption</u>
Lewtobiperampuan	5,591	Active	Flores	1935
Mutu	5,545	Dormant	Indonesia	
Lamonga	5,482	Steaming	Java	
Boleng	5,443	Active	Indonesia	1950
Gamkonora	5,364	Active	Halmahera	1949
Lewotobi Lakilaki	5,217	Active	Flores	1940
Ibu	4,921	Dormant	Halmahera	
Lewotolo	4,757	Dormant	Indonesia	
Werung	3,678	Active	Indonesia	1948
Palöe	2,871	Active	Indonesia	1973
Sirung	2,828	Active	Indonesia	1947
Krakatau	2,667	Active	Sunda Strait	1953
Nila	2,562	Active	Indonesia	1932
Batu Tara	2,454	Steaming	Indonesia	
Ruang	2,379	Active	Tagulandang	1949
Ija	2,162	Active	Flores	1969
Banda	2,152	Dormant	Banda Is.	
Teun	2,149	Dormant	Indonesia	
Serua	2,103	Dormant	Indonesia	
Unauna	1,640	Active	Flores	1960
Anak Krakatau	510	Active	Sunda	1960

Seismicity

Seismicity is high in Indonesia (8% of total world epicenters, the majority submarine). Most earthquakes are of tectonic group.

3 orogenic belts are present: 1) Alpide-Guide Belt - from Himalaya Mountain range south through Burma, Andaman island group, Sumatra, Java, and western part of Lesser Sundas; 2) East Asiatic Belt - part of Circumpacific Belt; 3) Circum-Australian Belt - from New Zealand through New Caledonia, north to Irian and Halmahera.

Java and Sumatra are both within Sunda Arc. The Java Trench faces Indian Ocean along center of the arc; shallow quakes occur between trench and south coast. Largest shallow quakes are on Indian Ocean coast of Sumatra and associated with right hand lateral faulting in lengthwise direction of island. Sumatra experiences deep quakes which diminish in frequency moving toward northwest.

Surface Distances (cont'd)

576	342	518	694	421	702	446	427	174	178	106	217	269	Pacitan
266	185	698	384	601	392	136	607	181	396	315	138	499	Pekalongan
66	326	1006	103	909	156	172	915	489	704	629	449	807	Purwakarta
432	263	532	550	435	558	302	441	131	253	173	140	317	Purwodadi
362	102	656	504	559	488	256	565	66	326	244	44	428	Purworejo
774	569	190	892	93	900	844	99	401	177	222	443	91	Probolinggo
476	307	490	594	393	602	346	399	212	226	145	184	275	Rembang
367	198	597	485	500	493	237	506	118	295	214	75	398	Semarang
269	529	1171	89	1074	143	337	1080	654	869	788	611	972	Serang
96	356	1060	115	963	61	226	969	524	758	677	500	861	Sukabumi
675	506	289	793	192	801	545	198	327	124	169	370	89	Surabaya
467	230	526	585	429	593	337	434	65	195	114	108	298	Solo
106	154	913	283	816	232	121	821	322	582	498	297	682	Tasikmalaya
202	121	762	320	665	328	72	671	245	460	379	202	563	Tegal
527	358	434	645	337	653	397	343	188	156	75	231	219	Cepu
259	48	788	433	691	385	203	696	197	457	376	174	560	Cilacap
341	79	677	481	580	467	233	585	107	346	265	64	449	Wonosobo

Pandgelang

806	Pacitan													
496	310	Pekalongan												
215	618	508	Purwakarta											
662	175	166	474	Purwodadi										
607	240	170	428	197	Purworejo									
1004	328	508	816	342	466	Probolinggo								
706	251	210	518	81	228	300	Rembang							
597	209	101	409	65	119	407	109	Semarang						
23	783	473	192	639	593	981	683	574	Serang					
181	672	362	126	528	458	870	572	463	203	Sukabumi				
905	275	409	717	243	393	99	201	308	882	771	Surabaya			
697	109	201	509	66	131	336	147	100	674	563	262	Solo		
351	496	257	172	423	256	723	467	358	369	202	649	387	Tasi Kmalaja	
432	374	64	244	230	223	572	274	165	409	298	473	265	193	Tegal
757	181	261	569	98	254	244	70	160	734	623	145	123	518	Cepu
504	371	196	325	311	131	598	355	246	522	355	524	262	153	Cilacap
587	260	134	407	184	54	487	228	119	570	437	434	151	233	Wonosobo

Tegal

325	Cepu		
131	385	Cilacap	
197	279	127	Wonosobo

Railroads

In 1973, government-owned railroad system made up of over 4,500 route-miles, 92% uniform gauge (3' 6"). About 3,100 miles in inter-connecting system serving all Java. 4 separate non-connecting systems on Sumatra total 1,360 miles. Madura has short line running from Pamekasan to port of Kamal. Poor condition of roadbed, track, bridges limits speed and loads. Freight transported by rail consists of petroleum products, food grains, construction materials, plantation products carried over medium long distances; in competition for short haul, low volume freight, road transport has advantage. Locomotives powered by steam, diesel; 101 km electrified.

State Railways: Perusahaan Jawatan Kereta Api:
Gereja 1, Bandung
has 7 regional offices; controls 7,891 km
(1974) of track on Madura, Java, and Sumatra.

Ports

Interisland and ocean shipping of considerable importance. Of 300 ports, 20 have capacity to handle ships over 500 dead-weight tons at quayside, 10 can manage significant volume of cargo. Major ports for dry cargo, Tanjung Priok and Surabaya on Java and Belawan in northern Sumatra, had 2,000 ship calls per year by powered vessels (early 1970's). Palembang, in south Sumatra, is major port for petroleum products with 3,200 ships, 1,900 of them tankers, annually. All harbors under authority of Directorate General of Sea Communication, with status of harbor state enterprises (as of 1971, West Irian Jaya harbors excepted). Divided into regions with major regional ports appointed as coordinating bodies.

Region I - Belawan & Environs	Region V - Banjarmasin
II - Dumai	VI - Ujung Pandang
III - Tanjung Priok	VII - Manado/Bitung
IV - Surabaya	VIII - Ambon
	IX - Jayapura

Port capacities generally adequate for existing traffic, but infrastructure and service facilities outmoded and operations inefficient. Siltation is also a problem, but government has rehabilitation plan.

In addition to major ports described in detail, the following are listed in Ports of the World:

1. Ampenan, lat. 8° 34' S; long. 115° 4' E. Lombok
2. Ardjuna, lat. 5° 54' S; long. 107° 57' E, Java
3. Asahan, lat. 2° 58' N; long. 99° 48' E, Sumatra
4. Bagan Siapi-Api, east shore Sungai Rokan estuary
5. Banyuwangi, lat. 8° 13' S; long. 114° 23' E. Java
Port Meneng, lat. 8° 7' S; long. 114° 23' E
6. Bekapi Terminal, lat. 1° 0' S; long. 117° 30' E
7. Bengkalis, lat. 1° 28' N; long. 102° 6' E, Sumatra
8. Bengkulu, lat. 3° 47' S; long. 102° 15' E, Sumatra
9. Benoa, lat. 8° 45' S; long. 115° 13' E, port for Denpasar Bali
10. Bima, lat. 8° 27' S; long. 118° 43' E, Sumbawa
11. Buleleng, lat. 8° 6' S; long. 115° 5' E, Bali
12. Cigading, lat. 6° 1' S; long. 105° 57' E, West Coast of Java
2.8 km east of Pulau Leneng
13. Cilacap, lat. 7° 41' S; long. 109° 5' E, Java on Donan River
14. Cinta Terminal, long. 106° 14' 10" E; lat. 5° 25' 21" S, Java
15. Cirebon, lat. 6° 41' S; long. 108° 33' E, Java
16. Dabo Singkep, lat. 0° 20' S; long. 104° 34' E. Singkep
17. Donggala, lat. 0° 37' N; long. 119° 44' E, Sulawesi
18. Fak-Fak, lat. 2° 56' S; long. 132° 17' E. West Irian
19. Gilimanuk, no coordinates given. Small port in narrows of Bali Strait
20. Gorontalo, lat. 0° 30' N; long. 123° 3' E, Sulawesi
21. Gunung Sitoli, lat. 1° 17' N; long. 97° 37' E, Nias Island, Sumatra
22. Jambi, lat. 2° 35' S; long. 103° 38' E, Sumatra
23. Kalianget, lat. 7° 4' S; long. 113° 57' E. Bawean Island, Java
24. Kempo, no coordinates given. Small port in Teluk Saleh, Sumbawa
25. Ketapang, no coordinates given. West Kalimantan
26. Kidjang, lat. 0° 53' N; long. 104° 37' E
27. Kuala Kapuas, no coordinates given. Small river port in Sungai Kapuas
28. Lho' Seumawe, lat. 5° 11' N; long. 97° 8' E. Aceh, Sumatra
29. Majene, lat. 3° 33' S; long. 118° 58' E, Sulawesi
30. Manado, lat. 1° 30' N; long. 124° 50' E, Sulawesi
31. Manokwari, lat. 0° 52' S; long. 134° 5' E, West Irian
32. Maumeri, no coordinates given. In Bay of Maumere
33. Merek, lat. 5° 55' S; long. 105° 59' 50" E. Ferryboat terminal for Java, Sumatra rail systems
34. Olee Lheue, lat. 5° 34' N; long. 95° 18' E, Aceh, Sumatra
35. Pakan Baru, lat. 2° 1' N; long. 98° 21' E, Sumatra
36. Panarukan, lat. 7° 42' S; long. 113° 56' E, Java
37. Pangkal Balam, lat. 2° 6' S; long. 106° 8' E, Sumatra
38. Pangkalan-Susu, lat. 4° 7' N; long. 98° 13' E, Sumatra

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39. Pare Pare, lat. 4° S; long. 119° 30' E, Sulawesi
 40. Pasuruan, lat. 7° 37' S; long. 112° 53' E
 41. Pemangkat, lat. 1° 11' N; long. 112° 53' E
 42. Penaba, lat. 0° 19' S; long. 104° 27' E
 43. Probolinggo, lat. 7° 43' S; long. 13° 13' E, Java
 44. Pulang Pisau, no coordinates given
 45. Pulau Sambu, lat. 1° 10' N; long. 103° 54' E. Oil terminal, Sambu Island, Sumatra
 46. Sabang, lat. 5° 35' N; long. 95° 19' E. Pulau Weh, Sumatra
 47. Samarinda, lat. 0° 28' S; long. 117° 16' E. On Kutai River, Kalimantan
 48. Sambat, lat. 1° 22' N; long. 109° 15' E. Inland port Sambat River
 49. Sampit, lat. 2° 59' S; long. 113° 3' E
 50. Santan Terminal, lat. 0° 7' S; long. 117° 32' E, Attaker
 51. Senipah Oil Terminal, lat. 1° 3.1' S; long. 117° 13.2' E
 52. Sibolga, lat. 1° 44' N; long. 98° 46' E, Sumatra
 53. Singkawang, lat. 0° 55' N; long. 108° 58' E, Kalimantan
 54. Sorong, lat. 0° 53' S; long. 131° 14' E, West Irian
Kasim Terminal, lat. 1° 18' S; long. 131° 1' E, on Jef Island
 55. Sungai Pakning, lat. 1° 20' N; long. 102° 9' E. Crude oil port, Sumatra
 56. Sungai Rantau, no coordinates given. Small port 140 km from bar of Rokan River
 57. Tanjung Pandan, lat. 2° 45' S; long. 107° 38' E, Island of Billiton, Sumatra
 58. Tanjung Uban, lat. 1° 4' 20" N; long. 104° 12' 40" E, Bintan Island, Sumatra
 59. Tapaktuan, lat. 3° 16' N; long. 97° 12' E, Sumatra
 60. Tarakan Island, lat. 3° 14' 36" N; long. 117° 53' 2" E, Kalimantan
 61. Tegal, lat. 6° 51' S; long. 109° 8' E, Java
 62. Telukbayur, lat. 0° 58' S; long. 100° 22' E, Sumatra
 63. Tenau/Kupang, lat. 10° 10' S; long. 123° 34' E, Timor
 64. Ternate, lat. 0° 47' N; long. 127° 23' E, North Maluku
 65. Tuban, lat. 5° 2' S; long. 112° 4' E, Java

Ambon (South Maluku)

 Lat. 1° 16' S; long. 116° 49' E.

Accommodation: Port is accessible to all ships of any draft. In the roads there is a wreck dangerous to shipping which is marked by two red buoys. Concrete wharf, "Jos Sudarso", 187 m long with 12 m alongside at L.W.S.T. Wooden jetty, "Wainitu" is 83 m long and in bad condition. The depth alongside is 5.50 m. Iron jetty,

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"Honipopu" is 17 m long with a depth of 9 m alongside. It is heavily damaged. Iron jetty for mooring sailing vessels is 10 m long with a depth of 2 m. It is also in bad condition.

Storage: Six waterfront storages totalling 5,200 sq m.
Two warehouses totalling 1,600 sq m.

Cranes: One 16-ton quay crane. Two 3-ton forklifts.

Water: Fresh water available.

Bunkers: Bunker fuel obtainable.

Shiprepairs: No facilities.

Towage: Compulsory. Government pilot available.

Airport: Patimura, approx. 1 1/2 hours drive; usually air passengers cross the bay in boat served by G.I.A. and Indonesian Air Force.

Balikpapan (Kalimantan)

Lat. 1° 16' S; long. 116° 49' E.

Approach: E.T.A. should be telegraphed 48 hours in advance to radio P.K.N., stating deepest draft requirements, etc. Depth at entrance, and/or on bar, 7.31 m L.W.S.T., 10.06 m H.W.S.T.

Largest Vessel: Maximum length o.a. permitted 228.6 m.

Accommodation: Depth in harbor, 9.14 m L.W.S. (Chart datum on bar is 7.70 m). Three of the oil piers are suitable for loading or unloading general cargo. Government jetty for one coaster only. Water front storage, 1,600 sq m.

Provisions: Fresh and dry provisions in very limited quantities only at high prices.

Water: Boiler and drinking water available in limited quantities (maximum 25 tons per vessel per call).

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Tanker Terminals: Six berths belonging to P.T. Pertamina. Lengths 170.7 to 208.8 m. Drafts, 8.53 to 10.97 m. Water available.

Bunkers: All types of marine oil available.

Shiprepairs: For minor repairs, vessels can use the assistance of P.T. Pertamina.

Towage: One small tug available.

Pilotage: Compulsory.

Airport: Sepinggan Airport, about 20 km for Dakotas only.

Banjarmasin (Kalimantan)

Lat. 3° 20' S; long. 114° 35' E. On the South coast.

Approach: Depth at bar 2 m L.W.S. A canal named "Terusan Bromo" between Martapura/Barito river for out-going vessels is in operation. Length 431 m, width 100 m, depth 5 m.

Accommodation: The old harbor at Martapura river used for inter-insular cargoes, provided with wooden wharf 348 m long, (depth 5 m L.W.S.) and various small jetties with an average depth of 2 m L.W.S. The "Trisakti" Harbor, is used for import-export cargoes, and is situated on the Barito river. Provided with a concrete wharf 200 m long (depth 10 m L.W.S.) and 6,000 sq m transit shed. No mechanical cargo handling equipment - only wheelbarrows used.

Provisions: Fresh provisions obtainable in limited quantity at high prices.

Water: Fresh water obtainable only during E monsoon at 5 tons/hr., between 22:00 and 24:00 hours.

Tanker Terminals: Pertamina owns an oil wharf 20 m long provided with a fixed crane of maximum 25 tons capacity.

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- Bunkers: No coal. Bunkers on Oil Wharf subject to official approval.
- Shiprepairs: Not available.
- Towage: None.
- Pilotage: Pilots available.
- Airport: Ulin, about 25 km.

Belawan (Sumatra)

Lat. 3° 48'; long. 98° 43' E. On Sungai Belawan delta.

Accommodation: Depth in river channel average 7 m L.W.S.T.; quay 7.2 m L.W.S.T. Berthage, Mercantile wharf, old one, 1,188 m long, the new one being 625 m long. Various small iron and wooden jetties with 2 to 6 m depth. One oil jetty with shallow depth alongside making berthing impossible. A mooring buoy available for one berth.

Storage: 29 transit sheds with a total area of 82,000 sq m; 19 warehouses with total area of 24,000 sq m.

Cranes: One 40-ton floating crane. Three quay cranes. Seven mobile cranes from 6 to 10 tons capacity, and forklifts ranging from 2 to 2 1/2 tons.

Water: Water available.

Shiprepairs: Minor repairs only. Drydocks available for coasters only.

Towage: One 350 h.p. and two 650 h.p. tugs available.

Pilotage: Compulsory. The pilots on service are provided with five pilot-boats and usually join vessels at the pilot station two miles from harbor. Coast radio station, "Medan Radio" (call signal PKB): On Frequencies 500/474 Kc/s. 13123 Kc/s, 8730 Kc/s.

Airport: Polonia Airport, approx. 28 km distant.

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Bitung (Sulawesi)

Lat. 1° 26' N; long. 125° 12' E.

Situated on the western end of Lembeh Strait. Good shelter all year round, but strong currents.

Accommodation: Good anchorage in front of the port. Concrete quay, 432 m long with a minimum draft of 9 m along the eastern side and 5 m along the western side.

Storage: Four storages along the wharf totalling 13,398 sq m and one warehouse behind of 4,320 sq m. Privately-owned warehouses built outside the boundaries.

Cranes: Two mobile cranes of 15 and 35 tons. Several 5-ton private mobile cranes. Cargo mostly manually handled.

Water: Fresh water available.

Bunkers: Bunker station. Fuel oil.

Development: A coaster harbor is being commenced. Oil jetty and bunker station are being built by oil company.

Shiprepairs: Minor repairs.

Towage: No facilities.

Pilotage: Compulsory.

Airport: Mapanget (see Manado), approx. 50 km distance.

Dumai (Sumatra)

Lat. 1° 41' N; long. 101° 27' E.

Accommodation: Mercantile wharf, 78 m long. Least depth at wharf face, 11 m. Capable of receiving vessels of up to 23,000 d.w.t. in favorable weather con-

ditions.

Storage: 12,000 sq m storage space available.

Cranes: Three mobile cranes, capacity 5 and 6 tons available for cargo handling.

Water: No drinking water available.

Tanker Terminals: Oil Wharf, owned by Caltex Pacific Oil Co. Jakarta, Java. (Cables: "Calpacem"). 111 m long with 17.5 m depth at wharf face for loading crude oil.

Bunkers: Available.

Shiprepairs: None, but Caltex Pacific Oil Company can assist with minor emergency repairs.

Towage: Three 3,000 h.p. tugs available.

Pilotage: Harbor pilots available.

Airport: Caltex air traffic available.

Jayapura (West Irian)

Lat. 2° 32' S; long. 140° 33' E.

Main harbor for West Irian.

Accommodation: Landing stages: (a) Concrete wharf, 132 m long, 8.84 m depth in good condition; used for mooring ships up to 20,000 g.t.; (b) Wooden wharf No. 1, 116 m long, 5.79 m depth, broken down; (c) Wooden wharf No. 2, 140 m long, 8.53 m depth, broken down; (d) 32 m long oil jetty can handle general cargo in emergencies. Water front storage available: transit sheds totalling 3,350 sq m; one warehouse of 1,800 sq m. Cargo handling equipment: one forklift of 4 to 5 tons capacity. Water supply.

Tanker Terminals: Concrete oil jetty, 32 m long, 4.88 m depth generally used for handling oil products. Owing to

damage accessible only to ships up to 2,500 g.r.t.

Bunkers: Not available.

Ship repairs: Not available.

Towage: Not available.

Pilotage: Available.

Airport: Jamani Airport.

Macassar (Sulawesi) (Ujung Pandang)

Lat. 5° 8' 8" S; long. 119° 24' 2" E.

Approach: Dredged channels 36.8 km long and 731.5 km wide at the narrowest leading to outer anchorage and main entrance of the harbor. The channel is lit with three buoys and can be passed safely on clear evenings. Minimum depth at outer buoy No. 1, 21 m; average channel depth 39 m; outer anchorage 18 m; entrance 16 m; depths in inner harbor from 9 m minimum to 20 m. Anchorage in inner harbor close to shore and well sheltered in SE monsoons. Coast radio station, Makassar Radio (call signal PKF): on Frequency 465 Kc/s., after announcement on 500 Kc/s at 00:00, 04:00, 08:00, 11:00 and 14:00 hours G.M.T.

Accommodation: Sukarno Quay: 1,360 m long, 7 m deep. Hatta Quay: 550 m long, 8 m deep. Hasanudin Quay: 70 m long, 5 m deep. Naval Jetty: 35 m long, 9 m deep. Oil Jetty: 70 m long.

Storage: 19 transit sheds of 53,845 sq m total. Four warehouses of 10,000 sq m total. Seven private warehouses totalling 16,000 sq m.

Cranes: Cargo handling served by three caterpillar mobile cranes of 5 and 7 tons capacity.

Water: Fresh water supply 300 tons per day.

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- Bunkers: Fuel, light diesel and gas oil from P.T. Pertamina. Bunkering can only be done alongside Sukarno Quay and Oil Jetty.
- Development: New bonded warehouse.
- Shiprepairs: No drydocks; minor repairs can be carried out by workshops.
- Towage: One tug for 5,000 d.w.t. and over. Four smaller tugs.
- Pilotage: Government harbor pilots available.
- Airport: "Mandai" Airport, approx. 20 kms.

Palembang (Sumatra)

Lat. 2° 59' S; long. 104° 45' E.

- Approach: About 86.5 km from outer bar of Musiriver. Depth on outer bar of river at L.W.S.T. 47.06 m (maximum draft about 7.62 m). Outward bound vessels must cross three bars: Sungai Lais, 5.21 m L.W.S.; Selat Djaran, 4.90 m L.W.S. and Pulau Pajung, 4.49 m.
- Accommodation: Landing stages: one heavily damaged iron wharf, 250 m long iwth 6 m alongside; one concrete wharf, 100 m long. Average depth 6 m at wharf face. One 60 h.p. lighter tug and several private lighters available. The coal wharf at Kertapati is accessible for loading and discharging general cargoes under approval of authorities.
- Storage: Five waterfront storages totalling 7,615 sq m. One warehouse of 450 sq m.
- Cranes: One 5-ton mobile crane. Five forklifts of 2 to 5 tons lifting capacities.
- Water: Fresh water available.
- Tanker Terminals: Eight berths. Lengths 140.2 m to 175.2 m, drafts

6.70 m to 9.75 m. Night berthing possible.
Water and bunkers available.

Bunkers: Bunker coal, fuel, light diesel and gas oil at Sungai Gerong.

Shiprepairs: Only minor repairs.

Pilotage: Compulsory. Sea pilots on 24-hour service.

Airport: Talangbetutu Airport.

Panjang (Sumatra)

Lat. 5° 28' S; long, 105° 19' E.

Accommodation: Coastal radio station, call sign PKC4; frequencies 6523, 43966, 430 and 500 Kc/s. Four mooring buoys available, two of which are not in good condition. Concrete wharf "A" - 160 m long, in good condition. Depth at wharf face 7.9 m L.L.W. Concrete wharf "B" - 110 m long, in good condition. Minimum depth 6 m L.L.W. Concrete wharf "C" - 75 m long, in good condition. Depth at berth 4 m L.L.W. Nagah Berlian Oil jetty 20 m long with 3 m L.L.W. alongside. Steel industry jetty, 40 m long with 6 m L.L.W. alongside; at present used for berthing local vessels. Seventeen privately-owned steel barges of 80, 100, 125 and 150 tons capacities; seven privately-owned lighter tugs of 20, 90, 120 and 280 h.p. capacities.

Storage: Six water-front storage facilities available; four of 3,520 sq m for foreign trade and two of 2,802 sq m for domestic trade. Ten warehouses owned by various companies and government agencies.

Cranes: Two fork-lift trucks of 2 and 3 tons lifting capacities respectively.

Bunkers: Available only in emergency cases ex tankwagons.

Shiprepairs: Minor repairs. Graving dock available: length

50 m, width 12 m, depth 2.4 m, lifting capacity 200 tons.

Towage: Two tugs.

Pilotage: Compulsory. Invisible reef embraces harbor basin, hence use of pilot in entering and leaving port is compulsory.

Airport: Branti Airport, about 35 km.

Pontianak (Kalimantan)

Lat. $0^{\circ} 1' S$; long. $109^{\circ} 20' E$. Inland port located in Sungai Kapuan Ketjil.

Approach: Accessible to ships up to 1,200 g.r.t. and 70 m length. Owing to silting, channel along entrance of Sungai Kapuan Ketjil is not navigable except for small craft up to 100 g.r.t. Ocean-going vessels approaching port are advised to navigate into river-mouth at Padung Tikar and enter rivers Sungai Kubu Ketjil, Sungai Kubu, Sungai Punggur Besar to reach upstream Sungai Kapuas Ketjil. Channel in Sungai Kubu Ketjil, which is marked by two lightbuoys, is 1,700 m long, 60 m wide and 5 m deep. Local regulations concerning the marine safety in Sungai Kubu Ketjil are directed to vessels of 500 g.r.t. and over, i.e.:

1. Vessels approaching Pontianak must enter Sungai Kubu Ketjil between 06:00 and 12:00 local time.
2. Vessels leaving Pontianak must enter Sungai Kubu Ketjil between 12:00 and 18:00 local time.
3. Vessels prohibited entry to Sungai Kubu Ketjil at night.

Weather: Frequent showers mainly prevail from August to February, preventing loading or discharging in port.

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Accommodation: Concrete wharf "Duikora" 117 m long, in good condition with 3 m alongside L.W.S.T. Wooden jetty "Gudang I and II", 220 m long with 1.70 m alongside L.W.S.T., heavily damaged. Wooden jetty Pelabuhan Ketjil, 170 m long with 2 m alongside L.W.S.T. in good condition. Two further wooden jetties with a length of 100 and 250 m respectively. About 80 privately-owned lighters and scows totalling 50 tons loading capacity.

Storage: No.'s 01, 02, 03 waterfront warehouses of 1,708 sq m, 1,232 sq m, 5,790 sq m respectively. Salt storage of 344 sq m.

Cranes: One 25-ton electric quay crane. One 3-ton truck-mounted crane. One 3-ton forklift.

Provisions: Available.

Water: Fresh water capacity from 50 to 200 tons per 24-hour day.

Bunkers: Diesel oil available in limited quantity.

Shiprepairs: Minor repairs. Slipway is accessible to vessels up to 200 g.r.t.

Towage: One 150 h.p. tug available. No harbor tug service.

Pilotage: Compulsory. Pilots on 24-hour service.

Airport: Supadio airport in Sungai Durian, approx. 30 km away.

Semarang (Java)

Lat. 7° 1' S; long. 110° 27' E. Main harbor of Central Java.

Approach: Open roadstead. Depth in Kalabaru Canal, 3 m, and in channel leading to inner harbor, 4 1/2 m. Channel and small harbor for lighters and small coasters only. Ships anchor in roads to load and discharge. Advised anchorage: during East

monsoon, in front of harbor entrance as close in as possible, during West monsoon, west of the moles within the circle drawn with a radius of 4.8 km around the lighthouse at lat. 6° 57' S, long. 110° 25' E. No mooring buoys available. Outside Semarang roads it is possible for vessels to anchor in water deeper than 10 m.

Largest Vessel: Port accessible only to vessels up to 800 g.r.t. with maximum draft of 4 m.

Accommodation: Coasters' wharf 310 m long with 5.50 m alongside; wharf at inner-harbor I, 540 m long with 3 m alongside; wharf at inner-harbor II, 685 m long with 3 m alongside; wharf at Kalibary Timur, 1,447 m long with 2.50 m alongside wharf at Kalibaru Barat, 1,446 m long with 2.50 m alongside.

Storage: 20 waterfront storages totalling 39,451 sq m.

Cranes: Five 5-ton quay cranes; one 5-ton mobile crane; one 1 1/2-ton mobile crane owned by Army; one 5-ton mobile crane; one 2-ton forklift owned by P.N. Jakarta Lloyd.

Provisions: Victuals obtainable in sufficient quantity.

Water: Fresh water available.

Bunkers: Fuel and diesel oil in limited quantity, but must be ordered in advance from P.N. Pertamina.

Development: New coastal harbor planned, depth 4.57 m.

Shiprepairs: Minor floating repairs.

Towage: Two tugs of average capacity, 150 h.p. available.

Pilotage: Compulsory to enter inner harbor. Harbor pilots available from 06:00 to 18:00 hours.

Airport: Achmad Yani Airport, about 5 km.

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Surabaya (Java)

The port is called Tanjung Perak and is about 4.8 km from Surabaya City, Lat 7° 13' S; long. 112° 44' E.

Approach: Radio Station call sign PKD, operating on 430, 500, 8,730 and 8,745 Kc/s. Depth at entrance 8.31 m N bar H.W. 7.77 m, L.W. 6.40 m; S bar H.W. 5.18 m L.W. 3.96 m, unreliable for steamers over 2,000 g.r.t. Channel soft mud bottom.

Accommodation: Anchorage in the roads in about 11 to 16 m, where cargo can be discharged into lighters for which special dispensation is required. Fourteen lighters available. 12 lighters having average capacity of 80 to 100 tons and two with capacity of 100 to 200 tons. Wharf accommodation for 25 to 30 large ships, with depth alongside quays varying from 5.49 to 9.14 m L.W.S.T. One concrete wharf 5,450 m long with 2.50 to 8 m depth alongside.

Cranes: One floating crane lifting 30 tons, whilst Navy floating cranes from 25 to 75 tons are available on special application. Six quay-cranes of 3 to 5 tons capacity; three 3-ton mobile cranes; three forklifts.

Water: Fresh water is scarce and vessels of over 200 g.r.t. can only be served by waterbarge.

Tanker Terminals: Two berths at Semampir Jetty operated by PT Shell Indonesia 170.7 m in length. Draft 9.45 m and 10.97 m. Water and bunkers available.

Bunkers: Shell supply light marine diesel fuel, high-speed diesel and fuel oil. Pipeline at nearly all wharves. Coal bunkering facilities.

Development: Port development includes the construction of 8 inter-island berths, 4 transit sheds, workshops, storage and related facilities. Dredging is being carried out alongside the new berths and access roads etc. are being improved.

Shiprepairs: Repairs at Dockyard and Naval yard.

Towage: Two 800 h.p. tugs available.

Pilotage: Rates (in US \$ for foreign vessels) on application.

Airport: International airport "Waru".

Tanjung Priok (Java)

The Port of Jakarta

Lat. 6° 6' S; long. 106° 52' E.

13 km E from center of Jakarta, connected by rail, canal and road.

Accommodation: Harbor protected by breakwater and unaffected by tide. Berthing places:

- 1) Pelabuhan Nusantara: Provided with a 676 m long concrete wharf on one side; with 4 m depth at wharf face. Especially for coasters.
- 2) First Inner Harbor: With concrete wharf on two sides, with total length of 1,830 m. Average depth 7 m at wharf face. Used for Inter-inland shipping routes.
- 3) Second Inner Harbor: With concrete wharf on two sides. Total length of 2,200 m, average depth 8 m at wharf face. Used for ocean going vessels.
- 4) Third Inner Harbor: With concrete wharf on one side and 1,025 m long. Average depth at wharf face 9 m. Northern part occupied by a passenger terminal named "Samudera Pura". Used for berthing of ocean going vessels.
- 5) Gasoline Pier: Two piers, each 25 m long, with a depth of 10 m. One situated on the NE end of 2nd Inner Harbor and the other one in the New Oil Harbor, just in front of the oil installations area. Ships must always berth heading north, and must turn in the harbor to come alongside quay stern first. Dangerous cargo must be discharged into lighters outside harbor area.

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Also five tugs, seven lighters, four mooring boats, four water barges, and 47 cargo barges.

Coast Radio station, "Tanjung Priok Radio", call signal PKZ (a) On Frequency of 8754, 4Kc/s at 02:00, 04:00 and 10:00 g.m.t.; (b) Class of emission, A.1.

Storage: 50 transit sheds with a total area of 197,000 sq m of which 29 sheds of 128,000 sq m are appointed for foreign trade and the other 21 sheds of 69,000 sq m for domestic trade.

Cranes: 35 quay cranes, 107 fork lift trucks, 17 mobile cranes and four floating cranes with lifting capacity of 30, 50, 100 and 200 tons respectively.

Tanker Terminals: One berth, 198.1 m in length. Draft 8.84 m. Night berthing possible. Water and bunkers available.

Bunkers: Supplied by P.T. Pertamina, by lighters, as well as by pipeline.

Development: Extension plan: (a) lengthening of gasoline pier in new oil harbor; (b) building of new wharf on east side of Third Inner Harbor, especially for Armed Forces.

Shiprepairs: Available. Radio, radar and electrical repairs by Radio Indonesia.

Towage: Ten tug boats available from 135 to 1,500 h.p.

Pilotage: Compulsory. Government harbor pilots available.

Airport: Kemajoran International Airport, about 14 km via Jakarta by-pass and 12 km via Antjol.

Shipping

Indonesian Commercial Shipping Association

Pelayaran Nasional Indonesia - Peini Lines: Jalan Patrice Lumumba, Jakarta; State-owned national shipping company; 60 ships.

Jakarta Lloyd P.N.: 28 Jl. Haji Agus Salim, Jakarta; services to USA, Europe, Japan and Australia, 18 cargo vessels.

Pertambangan Minyak Dan Gas Bumi Negara (PERTA-MINA); 2-6 Jl. Perwira, P.O.B. 12, Jakarta; cargo and tanker service of state oil mining company.

P.T. Perusahaan Pelayaran Samudera - SAMUDERA INDONESIA: 43, Jl. Kali Besar Barat, Jakarta-Kota; private company.

P.T. Trikora Lloyd: 1 Jl. Malaka, Jakarta-Kota, P.O.B. 1076/DAK.

P.T. Pelayaran Nusantara SRIWIJAYA RAYA: Jalan Tiang Bendera 52, Jakarta Barat; interinsular cargo and passenger services; fleet of 4 cargo and 6 passenger-cargo vessels.

N.S.M. "Oceaan": 18 Jalan Gajah Mada, P.O.B. 280/JKT, Jakarta; regular services between Europe and Indonesia.

Blue Funnel Line: 18 Jalan Gajah Mada, P.O.B. 289/JKT, Jakarta; regular services between Indonesia, Europe, and Australia.

Blue Sea Line: 18 Jalan Gajah Mada, P.O.B. 289/JKT, Jakarta; regular services between the Far East and USA.

Vessels of more than 20 lines call at Indonesian ports.

Air Transportation and Airports

Air transport growing rapidly; becoming important as means of linking islands, gaining access to remote island interiors. Principal international airports at Kemajoran near Jakarta and at Ngurah Rai on Bali; Halim Air Force Base upgraded to international airport for Jakarta area (1974) while new airport is being built. Several domestic airports had inadequate ground facilities for commercial jet aircraft in mid-1970's.

Aerodromes

NB: For up-to-date information consult latest issue of weekly International Notams, International Flight Information Manual, and/or ICAO's Air Navigation Plan for appropriate region.

<u>Location</u> <u>Coordinates</u>	<u>Eleva-</u> <u>tion M/</u> <u>Temp C</u>	<u>Runway Characteristics</u>			<u>Fuel/</u> <u>Octane</u>
		<u>NR/Type</u>	<u>Slope</u> <u>%</u>	<u>Aircraft/</u> <u>Length M</u>	
Balikapan/ Sepinggan REG-GA & ALTN-NS					
1° 16' S 116° 54' E	3	07/25	1800	B A UW 29	

Remarks: Alternate Aerodromes: Tarakan/Tarakan.

Aids: L, MD, MC.

Banjarmasin/
Syamsudin Noor
REG-GA

32° 7' S 114° 45' E	21 33	10/28	1650	B A UW 29/2	
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Remarks: Stopway 10 & 28-60.

Aids: L, MD, MC.

Batam/New
REG-GA

1° 7' 30" N 104° 7' 30" E					
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Runway Characteristics

<u>Location</u> <u>Coordinates</u>	<u>Eleva- tion M/ Temp C</u>	<u>NR/Type</u>	<u>Slope %</u>	<u>Aircraft/ Length M</u>	<u>CL</u>	<u>Aircraft/ Strength (1,000 kg)</u>	<u>Fuel/ Octane</u>
Denpasar/ Bali Intl. (Ngurah Rai) REG-S	3 27.8	09/27	0.03	2700	A	AUW 63/1 81/2 123/4	100JA1

Remarks: Alternate Aerodromes: Jakarta/Halim Perdanakusuma Intl.
Jakarta/Kemayoran, Singapore/Intl., Surabaya/Juanda.

Aids: ILS(27-1), DME, VOR, VA(09), LR, LTX, LB, LO, MD, MC, MT,
MTD, MS, MFD, MTX, MO, L49. (PA 27-1 P -/-). Stopway
09-100; 27-80. No telex.

Jakarta/
Halim
Perdanakusuma
Intl.
REG-S

6° 16' 1" S 106° 53' 39"E	26 26.1	06/24	0.07	3000	A	LCN110h120	100JA2
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Remarks: Alternate Aerodromes: Denpasar/Bali Intl (Ngurah Rai),
Jakarta/Kemayoran, Kuala Lumpur/Intl., Singapore/Intl.,
Surabaya/Juanda.

Aids: ILS (24-1), L, PA(24-1), VA(06+), LR, LTX, LB, LO, MD,
MC, MT, MTD, MS, MFD, MTX, MO, L6, 7, 9. Clearway 06 & 24 -
300. No telex.

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Location Coordinates	Eleva- tion M/ Temp C	Runway Characteristics				Aircraft/ Strength (1,000 kg)	Fuel/ Octane
		NR/Type	Slope %	Aircraft/ Length M	CL		

Jakarta/
Kemayoran
REG-S

6° 8' 35" S	6	08/26	0.00	1900	B	AUW 36/1	100JA1
106° 50' 51" E	26.6	17/35		2475	A	50/2 AUW 72/1 90/2 127/4	

Remarks: Alternate Aerodromes: Denpasar/Bali Intl. (Ngurah-Rai), Jakarta/Halim Perdanakusuma Intl., Kuala Lumpur/Intl., Singapore Intl., Surabaya/Juanda.

Aids: L, LR, LTX, LB, LO, MD, MC, MT, MTD, MTX, MO, SA(17), VA 17, 35, MS, MFD. No telex. Available as alternate only.
New Aerodrome: Jakarta/Cengkayang Intl. (3600 P -/85) (AUW 450).*

* Consult ICAO's Air Navigation Plan for aids in existing and new aerodrome.

Jayapura/
Sentani
REG-S

2° 34' S	85	12/30	0.02	1750	B	AUW 29/2	100JA2
140° 31' E	25.8						

Remarks: Alternate Aerodromes: Wewak/Wewak.

Aids: MD, MC. No telex.

Kupang/
Penfui
REG-S

10° 10' S	102	12/30	0.02	1380	C	AUW 11	100
123° 40' E	29						

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Runway Characteristics

<u>Location</u>	<u>Eleva- tion M/ Temp C</u>	<u>Slope</u>	<u>Aircraft/ Length M</u>	<u>Aircraft/ Strength (1,000 kg)</u>	<u>Fuel/ Octane</u>
<u>Coordinates</u>	<u>NR/Type</u>	<u>%</u>	<u>CL</u>		

Remarks: Alternate Aerodromes: Oecussi/Oecussi.

Aids: MD, MC, MS, L4. No telex.

Medan/
Polonia
REG-S

3° 34' N	27	05/23	0.00	2450	A	AUW 50	100JA2
98° 41' E	26.1						

Remarks: Alternate Aerodromes: Kuala Lumpur/Intl., Penang/Penang, Singapore Intl.

Aids: VOR, SA(05), VA(05, 23), LR, LTX, LB, LO, MD, MC, MTX, MO, L4, 5, 9. Stopway 05-100. Pilots of non-scheduled flights must show flight approval upon arrival. No telex.

Menado/
Sam Ratulangi
REG-S

1° 32' N	81	18/36	0.16	1750	B	AUW 39	100JA2
124° 55' E	28						

Remarks: Alternate Aerodromes: Buyan/General Santos.

Aids: L, MD, MC, L4, 9. (MT, MTX, MO, P -/-). VFR only. No telex.

Palembang/
Talangbetutu
REG-S

2° 54' S	10	11/29	0.00	1850	B	AUW 39	
104° 42' E	26.2	N-INSTR					

Remarks: Alternate Aerodromes: Pangkalpinang/Pangkalpinang.

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<u>Location</u> <u>Coordinates</u>	<u>Eleva-</u> <u>tion M/</u> <u>Temp C</u>	<u>Runway Characteristics</u>				<u>Fuel/</u> <u>Octane</u>
		<u>NR/Type</u>	<u>Slope</u> <u>%</u>	<u>Aircraft/</u> <u>Length M</u>	<u>Aircraft/</u> <u>Strength</u> <u>(1,000 kg)</u>	

Aids: VOR, LR, LTX, LB, LO, MD, MC, MT, MFD, MTX, MO. Stopway 11-60. 29-50.

Pangkalpinang/
Pangkalpinang
ALTN-S

2° 10' S	33	16/34	0.2	1520	C	AUW 26
106° 8' E	28	N-INSTR				

Remarks: Alternate Aerodromes: Palembang/Talangbetutu.

Aids: VOR, MD, MC.

Pekanbaru/
Pekanbaru
REG-S

0° 28' N	31	18/36	0.35	1850	B	100JA2
101° 27' E	27					

Remarks: Alternate Aerodromes: Rengat/Japura, Singapore Intl.

Aids: VOR, MD, MC, L49. (MT, MTX, MO, P, -/-). No telex.

Pontianak/
Supadio
REG-GA

0° 9' S	3	15/33		1655	B	AUW 29	100
109° 24' E							

Remarks: Pilots of non-scheduled flights must show flight approval upon arrival. No telex.

Aids: L, MD, MC, MTX, L4, 9.

Runway Characteristics

<u>Location</u> <u>Coordinates</u>	<u>Eleva-</u> <u>tion M/</u> <u>Temp C</u>	<u>Slope</u> <u>NR/Type</u> <u>%</u>	<u>Aircraft/</u> <u>Length M</u>	<u>Aircraft/</u> <u>Strength</u> <u>(1,000 kg)</u>	<u>Fuel/</u> <u>Octane</u>
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Rengat/
Japura
ALTN-S

0° 20' S	19				
102° 19' E	26.7	10/28	1300	C	AUW 11

Remarks: Alternate Aerodromes: Pekanbaru/Pekanbaru.

Aids: L, MD, MC.

Surabaya/
Juanda
ALTN-S

7° 22' S	3	10/28	0.0	3000	A	AUW 136/4
112° 46' E	26.9	INSTR				

Remarks: Alternate Aerodromes: Denpasar/Bali Intl. (Ngurah Rai), Jakarta/Halim Perdanakusuma Intl., Jakarta/Kemayoran.

Aids: VOR, SA(10), LC, LTX, LB, LO, MD, MC, MTD, MFD, MTX, MO. (VA 10, P, -/-).

Tanjungpinang/
Kijang
REG-GA

0° 55' N	17					
104° 32' E	24.5	04/22	1400	C	AUW 18	100JA2

Remarks: No telex.

Aids: L, MD, MC, L4.

<u>Location</u> <u>Coordinates</u>	<u>Eleva-</u> <u>tion M/</u> <u>Temp C</u>	<u>Runway Characteristics</u>				<u>Aircraft/</u> <u>Strength</u> <u>(1,000 kg)</u>	<u>Fuel/</u> <u>Octane</u>
		<u>NR/Type</u>	<u>Slope</u> <u>%</u>	<u>Aircraft/</u> <u>Length M</u>	<u>CL</u>		
Tarakan/ Tarakan REG-NS							
3° 20' N 117° 34' E	6	06/24		1400	C	AUW 11	100JA2

Remarks: Alternate Aerodromes: Balikpapan/Sepinggan.

Aids: L. No telex.

Telanaipura/
Paalmerah
REG-GA

1° 38' S 103° 39' E	25 25.9	13/31		1650		AUW 28	
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Aids: L, MD.

* Key

INSTR - Instrument Approach Runway
N-INSTR - Non-Instrument Runway

Radio Aids

ILS - Instrument Landing System
DME - Distance Measuring Equipment
VOR - VHF Omni-Directional Range

Lighting Aids

- PA - Precision Approach Lighting System
- SA - Simple Approach Lighting System
- VA - Visual Approach Slope Indicator System
- AV - Abbreviated Approach Slope Indicator System
- R - Runway Edge, Threshold & Runway End Lighting
- C - Runway Center Line Lighting
- TD - Runway Touchdown Zone Lighting
- TX - Taxiway Lighting
- B - Aerodrome or Identification Beacon
- O - Obstruction Lighting

Marking Aids

- D - Runway Designation Markings
- C - Runway Center Line Markings
- T - Runway Threshold Markings
- TD - Runway Touchdown Markings
- S - Runway Sidestripe Markings
- FD - Fixed Distance Markings
- TX - Taxiway Center Line & Holding Position Markings
- O - Obstruction Markings

Additional Lighting

1. Portable Runway Lights (electrical)
2. Boundary Lights
3. Runway Flood Lights
4. Low Intensity Runway Lights
5. Low Intensity Approach Lights
6. High Intensity Runway Lights
7. High Intensity Approach Lights
8. Sequenced Flashing Lights
9. Visual Approach Slope Indicator (VASI)
(an asterisk (*) preceding the element (L*4) indicates lighting available on prior request by phone, telegram, etc.)

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Personal Entry Requirements

Passport and visa required.
Health: see Travel.

Aircraft Entry Requirements

All private and non-scheduled commercial flights overflying or landing for commercial or non-commercial reasons must obtain prior permission from the Director General of Civil Aviation, Jalan Hajam Wuruk No. 2, Jakarta iii/18, Republic of Indonesia (telegraphic address: CIVILAIR JAKARTA/TELEX: None). All requests must be submitted so as to reach the Director General at least 14 days prior to departure.

All requests must include (a) name, address and nationality of operator and name and rank of pilot, (b) aircraft type and registration marks, (c) dates and times of arrival and departure from Indonesia and airports concerned, (d) place(s) of loading or unloading of passengers and cargo, (e) number and status of passengers (civil and military) and type and amount of cargo, (f) purpose of flight, (g) information on charter price, name and address and business of charterer, if applicable.

All requests must be handled through a civil representative in Jakarta. The American Embassy can furnish names, upon request, of Jakarta firms that may be willing to assist in obtaining flight authorizations, on an ad hoc basis, for operators that do not have regular representatives.

Special Notices

No aviation fuel will be made available to non-Indonesian registered, non-scheduled aircraft entering Indonesia unless special authority is requested and secured. Requests should be submitted several weeks in advance to: Aviation Service Manager. PERTAMINA, Jalan Medan Merdeka Utara, 13, Jakarta, Indonesia.

Aeronautical Information Source

AIP INDONESIA

International Notam Office

JAKARTA-WIIIN

Airlines

Domestic

P.T. Garuda Indonesian Airways: Jalan Ir. H. Juanda 15, Jakarta; operates domestic, regional and international services to Australia, Hong Kong, India, Japan, Malaysia, Saudi Arabia, Singapore, Thailand, France, Federal Republic of Germany, Italy, Netherlands; fleet: 30 F28, 18 DC-9, 3 DC-8, 4 DC-10 (1977).

Merpati Nusantara Airlines: Jl. Patrice Lumumba 2, Kemayoran, Jakarta; government-controlled; domestic and regional services, service to USA via Japan; 2 Boeing 707, 3 Vanguard 953, 6 Viscount 828, 3 YS 11, 4 F27, 2 HS 748, 3 DC-3, 19 Twin Otter, C-212.

P.T. Bouraq Indonesian Airlines (BIA): 13 Jalan Kebon Sirih, Jakarta; private company; domestic services linking Jakarta with points in Kalimantan, Sulawesi and Taqau (Malaysia); 1 YS-11A, 7 HS 748, 3 DC-3.

P.T. Bali International Air Service: subsidiary of BIA; charter services; 2 Fokker F27, 1 HS 748, 4 Trislander, 4 BN Islander.

Mandala Airlines: Jalan Blora 23, Jakarta; domestic passenger services; 2 Viscount 800, 1 HS 748, Convair CV-600.

P.T. Sempati Air Transport: Jalan Medan Merdeka Timur 7, P.O.B. JKT 2068, Jakarta Pusat; subsidiary of P.T. Tri Usaha Bhakti; passenger and cargo services from Jakarta to Denpasar, Japan, Malaysia, the Philippines and Singapore; 3 Fokker F27, 1 DC-3.

Seulawah Air Services Ltd.: 14C Jalan Ir. H. Juanda, Jakarta; domestic services; 1 Viscount 800, 2 Fokker F27, 2 BN Trislanders.

P.T. AOA Zamlud Aviation Corpotation: 48 Jalan Minangkabau, P.O.B. 214, Jakarta; domestic services; 6 DC-3.

Foreign

The following airlines also serve Jakarta: Aeroflot, Air France, Air India, Alitalia, British Airways, Cathay Pacific Airways, Cesko-slovenske Aerolinie, Egypt-Air, Japan Air Lines (JAL), KLM, Lufthansa, MAS, Pan American, PIA, Qantas Airways, Scandinavian Airlines System (SAS), Swissair, Thai Airways International and UTA.

Air Distances*

From Jakarta (Halim) Intl. to:

Jogyakarta.....	264
Kota Kinabalu.....	1,058
Kuala Lumpur.....	748
Kuching.....	588
Labuan.....	987
London.....	7,297
Los Angeles.....	8,967
Manila.....	1,733
Medan.....	885
Melbourne.....	3,217
New York.....	10,057
Padang (Tabing).....	585
Palembang.....	279
Pangkalpinang.....	290
Perth.....	1,864
Pontianak.....	261
Rangoon.....	1,762
Rome.....	6,724
Sampit.....	492
San Francisco.....	8,666
Semarang.....	245
Singapore.....	567
Surabaya (Perak).....	405
Tanjungpandan.....	252

Tanjungkarang..... 137
Tanjungpinang..... 524
Tokyo..... 3,592

From Guam To:

Jakarta..... 2,934

* In Statute Miles

Electric Power

Nationalized power system (State Electricity Enterprise - PLN) had installed generating capacity of 1,254,889 kw in 1976 from plants in 16 regions throughout the country. 320,005 kw were generated by diesel engines; 250,000 kw by steam; 320,563 kw by hydropower; 364,321 kw by turbines. Largest installations in Jakarta area. The country is self-sufficient in power sources.

In early 1970's, power resources and facilities used by PLN inadequate; service described as poor and unreliable. Private companies and individuals given limited rights to build and operate stations for own purposes and, in some cases, for other consumers. Many domestic and industrial users had own plants.

Country's electric power (1977): 3,128,000 kw capacity; 8.7 billion kwh produced, 65 kwh per capita.

Proposed USAID projects would provide basic infrastructure and technical training in rural electrification program to benefit directly about 2 million of rural poor.

Electricity supply is normally 110 volts, 50 cycles; in some areas 220 volts used.

Installed Capacity of Electric Generating Plants State Enterprises - 1976 (in kw)

<u>Region</u>	<u>Administrative Area</u>	<u>Diesel</u>	<u>Steam</u>	<u>Hydro</u>	<u>Turbine</u>	<u>Total</u>
I	Daerah Istimewa Aceh	10,535				10,535
II	Sumatera Utara	59,033		120	64,432	123,585
III	Sumatera Barat, Riau	28,595		7,070		35,665
IV	Sumatera Selatan, Jambi, Lam- pang, Beng- kulu	23,965	25,000	1,320	27,279	77,564
V	Kalamantan Barat	10,290				10,290

<u>Region</u>	<u>Administrative Area</u>	<u>Diesel</u>	<u>Steam</u>	<u>Hydro</u>	<u>Turbine</u>	<u>Total</u>
VI	Kalamantan Selatan, Kalamantan Timur, Kalamantan Tengah	14,570		20,000		34,570
VII	Sulawesi Utara, Sulawesi Tengah	9,531		8,940		18,471
VIII	Sulawesi Selatan, Sulawesi Tenggara	20,132	25,000	90		45,222
IX	Maluku	5,376				5,376
X	Irian Jaya	11,026				11,026
XI	Bali, NTB, NTT	39,466				39,466
XII	Jawa Timur	25,466	50,000	151,432	27,500	254,398
XIII	Jawa Tengah, D.I., Yogyakarta, Tuban, Lasem, Bojonegoro	46,852		39,900	35,900	122,652
	Pembangkitan, Jawa Barat & DKI Jaya	14,220	150,000	90,920	209,210	464,350
	Distr. Jabar & Tangerang	948		571		1,519
	Distr. DKI & Jawa Barat & Tangerang	=	=	=	=	=
	Total	320,005	250,000	320,563	364,321	1,254,889

Source: Indonesia - PLN/State Electric Enterprises

Radio Network

Djawatan Radio Dan Televisi Republik Indonesia (RRITV) is media component of department of information with responsibility for all domestic and foreign broadcasting. 50 AM stations, 1 FM.

Radio is potentially most influential medium. 6 million radio receivers serve audience of 60 million. National system of 45 RRI stations, each linked with one of three regional networks located in Medan, Yogyakarta and Ujung Pandang. All stations required to transmit news broadcasts, certain other programs simultaneously; all use regionally prepared programs and produce independent programs, often in local languages. Radio Jakarta, National Control Station, on the air about 16 hours daily.

Rural broadcasting program begun in 1969 aimed at group audiences in countryside - RRI Stations augmented by over 60 managed by local administrators.

Foreign service transmitters broadcast to N and S America, Europe, Africa, various locations in Asia in major languages of areas to which directed.

Radio Republik Indonesia: RRI,
Medan Medeka Barat 9, Jakarta

Radio Sonora: Jalan Gajah Mada 109,
Jakarta - Barat. Broadcasts mainly to Jakarta on 1145 k Hz.

Telephone System

Domestic and international telecommunications operated by state-owned corporation. Interisland microwave system; domestic service described as poor. There were 347,030 telephones in use in Indonesia in 1977 - about 0.2 per 100 population. As result of improvement projects begun in mid-1970's, trunk microwave, high frequency radio, and troposcatter radio systems were expected to provide communication facilities throughout Indonesia, to Singapore and Malaysia and probably to Australia and the Philippines by 1979.

International service considered good - 30 minute waiting time. Acceptable voice quality. Telegraph lines serve entire country. Tel-ex services available through 17 exchanges. 8 international switchboards in Jakarta (1971); service also available in Medan, Bandung,

and Djajapura (Jayapura) in Irian Jaya. Direct telegraphic communication via high-frequency radio-telephone circuits to Kuala Lumpur, Singapore, Hong Kong, Manila, Karachi, Bombay, Sydney, Shanghai, Moscow, Amsterdam and Berne.

Number of Licenses Issued for Telephone Receivers
by Province -1977

1. Daerah Istimewa Aceh	3,704
2. Sumatera Utara	25,061
3. Sumatera Barat	7,004
4. Riau	3,338
5. Jambi	1,744
6. Sumatera Selatan	8,169
7. Bengkulu	1,128
8. Lampung	5,597
9. DKI Jakarta	102,773
10. Jawa Barat	35,905
11. Jawa Tengah	35,431
12. D.I. Yogyakarta	4,162
13. Jawa Timur	65,787
14. Kalimantan Barat	2,476
15. Kalimantan Tengah	637
16. Kalimantan Selatan	4,219
17. Kalimantan Timur	3,144
18. Sulawesi Utara	3,984
19. Sulawesi Tengah	1,095
20. Sulawesi Selatan	11,887
21. Sulawesi Tenggara	419
22. Bali	7,671
23. Nusatenggara Barat	2,904
24. Nusatenggara Timur	1,720
25. Maluku	2,667
26. Irian Jaya	4,372
Total	347,030

Source: Indonesia - Telecommunication Operation Traffic

Television

13 stations covering all Java and North Sumatra. Construction of facilities for South Sumatra was underway in mid-1970's. 863,227 television sets were registered in 1977: Java and Madura, 700,644; Sumatra, 94,591; Kalimantan, 32,423; Sulawesi, 23,436; Bali, 6,895; Nusatenggara Barat, 1883; Nusatenggara Timur, 725; Maluku, 1,517; Irian Jaya, 1,113. Transmission for 5 hours daily, beginning at 6 PM (early 1970's).

Yayasan Televisi Republik Indonesia: Senayan, Jakarta; government controlled.

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COUNTRY PROFILE USER : Dear _____

Please use this form to note any changes, additions, corrections or suggestions you think would update and improve this country profile. Since our aim is to make these profiles as relevant as possible, your critique is essential and very much wanted. Return comments to Lucy Drobot, OFDA Country Profiles, Room 1262A.

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TOPIC

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