

LAPU LAPU HUMAN DEVELOPMENT PROJECT

RESEARCH PACKET

MAY 23, 1976

LAPU-LAPU HUMAN DEVELOPMENT PROJECT
INITIATORY BRIEF

BACKGROUND

The Institute of Cultural Affairs is an international group interested in the human factor in world development. It is incorporated in the Republic of the Philippines where it has been holding practical training programs for the past five years. The training effort has included a three-day seminar in methods of managerial effectivity for corporation executives and institutional leaders and a series of three-week International Training Institutes (ITI) which have dealt with methods of socio-economic development at the local level. Now the Institute of Cultural Affairs has been requested by participants of these training programs to assist in establishing a local community development demonstration project in the Philippines.

CONSULTANTS

The Institute of Cultural Affairs was originally incorporated as a not-for-profit corporation in the United States, and now operates in 23 nations around the world through 102 offices. The Institute receives its funding from a variety of sources in many nations: private foundations, major business corporations, government agencies and concerned individuals. A major function of the ICA is establishing comprehensive Human Development projects on a local level. There are currently seven demonstration projects in being: Jeju-Do in the Republic of Korea, Majuro in Micronesia, Oombulgurri in Australia, Kawangware in Kenya, Maliwada in India, Isle of Dogs in London, England, and Fifth City in the USA. With the Lapu-Lapu Human Development Project on Mactan Island in the Philippines, there will be a total of eight such projects. Other invitations have been extended to initiate projects during 1976 by Indonesia, Egypt and Venezuela.

METHOD

These demonstration projects are concerned with local social and economic development, but the focus is on development of the community itself. The intent is to enable the local community to develop its own self-sufficiency and self-dependency. Each project begins with the local situation, the available natural and human resources, and the current degree of technical development and builds from there. It expands and intensifies existing agricultural and light industry, introducing the new only when it is needed. It stresses such social dynamics as adult functional training, community identity, ongoing health upgrading and services, and early learning for preschoolers. These are but illustrative of the comprehensive approach to community development when all of the human issues are dealt with simultaneously on the local level. The result is corporate motivity, skill development, and a practical vision of the future, all of which contribute to the national economic and social development. Each project is intended to be a "showpiece" to motivate and provide training to other communities. The possibility for replication is built into each demonstration project from the start.

LAPU-LAPU

After receiving the request to establish such a project in the Philippines, the Institute staff considered many locations. The possible choices were narrowed down to the Visayas region and then to Mactan Island. Major factors in the choice were accessibility and insularity and a clear need for development. The actual site is the sitio of Sudtonggan in Basak Barangay of Lapu-Lapu City. This sitio was chosen because of its compactness, insularity, a population of about 1,500 persons and its very critical needs. The base line analysis shows an extremely low per capita income, serious nutrition and health problems, critical un- and under employment, and inadequate services and utilities. Its present dire situation and the obvious potential for development make it ideal for a demonstration project. Another positive factor is the accessibility of the village--it is 10 minutes from the airport, 70 minutes by air from Manila. The island itself is rich in historic and cultural symbolism. Lastly and most important in choosing a location was the readiness and enthusiasm displayed by the local people, their leadership and the support of Mayor Maximo Patalinjug of Lapu-Lapu City.

REPLICATION

The Lapu-Lapu Human Development Project launching will follow the initiating consultation scheduled for May 23-29, 1976. The consultation will prepare a comprehensive socio-economic development plan geared for immediate implementation. The consult will render the latent vision of the local people into practical and dynamic form. Each program will be staffed with a trained consultant and a full complement of local citizens. The consultant will act as an advisor as long as he is needed. When the local villagers can manage the programs, the consultants will gradually withdraw. Technical expertise from around the world can be focussed through the Institute's global network of advisors. Within six months the project would move to replication in the seven other sitios of Basak. Within twelve months of launching, a rational expansion to the other 150 sitios of Mactan would be underway. The final step in replication would be the expansion to the Pablacion area of Lapu-Lapu City. In three years the project would be ready for replication throughout the nation.

FUNDING

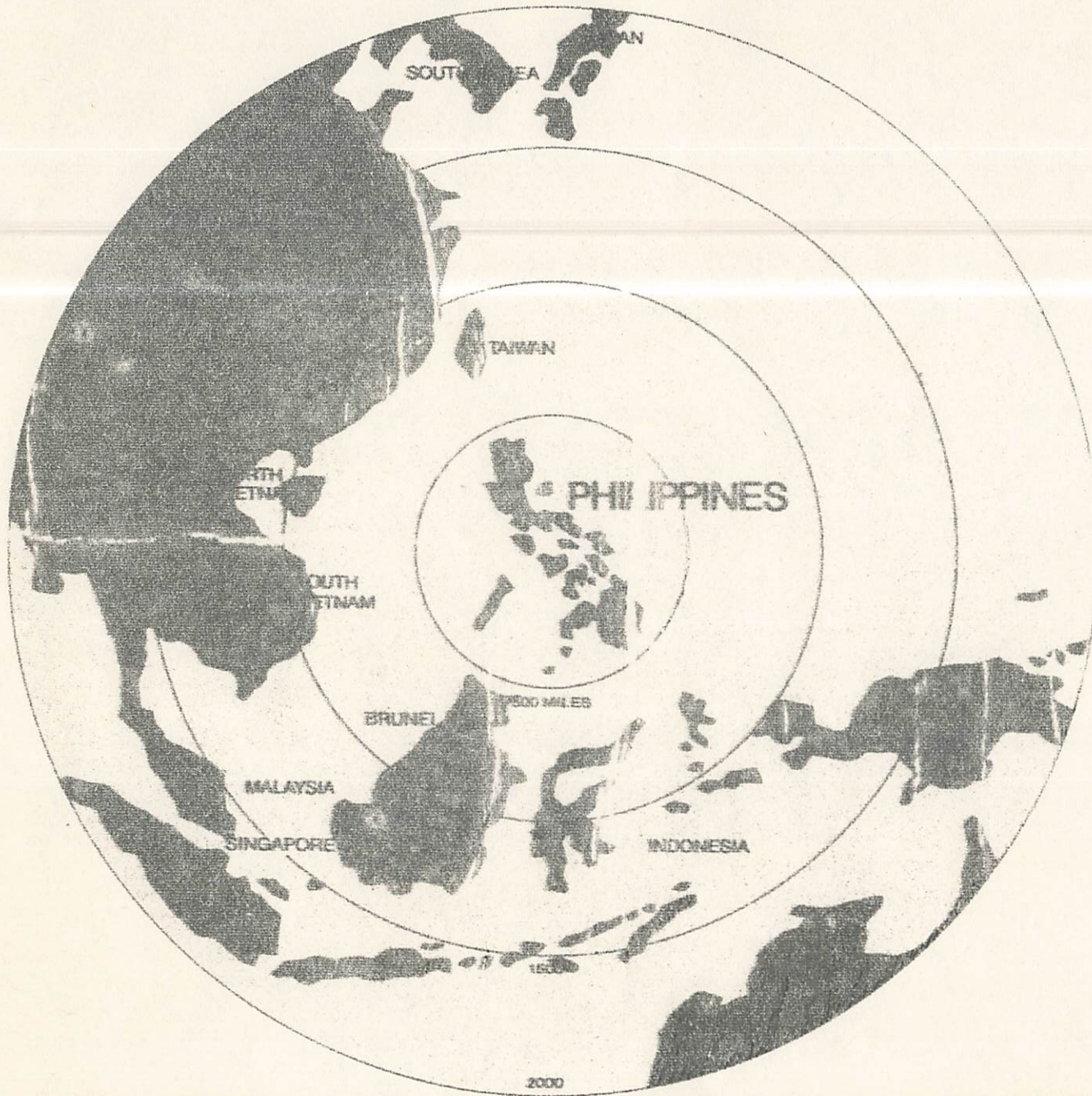
The cost of the project is determined during the consult, and therefore no real projection can be made at this time. Previous experience indicates that a coalition of public and private funding at local, national and international level will be required. Funding may come in the form of direct cash, in-kind materials and in-kind equipment. In the Lapu-Lapu Human Development Project we would expect in-kind labor to be contributed by the villagers, and cash and in-kind items from concerned individuals and local corporations. Already Mayor Petalinjug of Lapu-Lapu City has offered the services of the city staff in whatever capacity they are needed. At a national and international level the Institute would seek broad-based support from corporations, foundations and private individuals. With regard to public funding, the USAID Mission in the

Philippines has been apprised of the project and is anticipating a funding proposal to be submitted after the consultation in May. From the Government of the Republic of the Philippines we would expect a channelling of the services and supplies of various agencies as direct project support. Finally, we anticipate that the project will become totally self-supporting within three to four years from substantially increased village income and program revenues. At that point, no more assistance from the public sector would be required, other than that which is normally allocated to any village of comparable size in the Philippines. Immediately after the May consult, the program plans and funding needs will be presented to the appropriate government agencies and officials.

BUDGET

The funding needs through the end of May, 1976 are detailed on the budget sheet. Costs are delineated into three areas; project initiation, site preparation and village consult. The project initiation costs cover expenses for site selection, project endorsement and set-up coordination, until the actuating programs are launched in June. Site preparation includes the cost of enabling the local staff to move into the village. This will require the construction of housing space and purchase of a jeepney for local transportation. The final costs are those of the consult itself. This includes ICA consultants' travel, food and lodging for 80 participants for 7 days, document printing of the consult findings, materials and local travel. These funds are to be sought immediately from the private sector of the Philippines.

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Focus on The Philippines

The Philippines is making a new and diligent effort to advance its own development. It has recently adopted several measures to strengthen the economy and to create conditions that are conducive to development, using to advantage the country's substantial natural and human resources.

The Philippines is outstanding among the countries on the western rim of the Pacific basin for its basic national commitment to free enterprise. With its strong private sector base, nourished and supported by a large continuing supply of university trained manpower for managerial and technical positions, the Philippines is determined to streamline and expedite governmental procedures and to strengthen its attraction for outside investment to assist the country's development. The Philippines became an independent republic on July 4, 1946. The country has had a special kinship and relationship with the United States since 1898 when the islands were ceded to the US, following the Spanish-American war. Spain had ruled the country as a colony for almost 400 years.

The Philippines archipelago, with a population that now exceeds 40 million and is growing 3 percent annually, consists of more than 7,000 islands, 11 of which are major ones. The country lies approximately 600 miles southeast of the Asian mainland, immediately north of Indonesia and the Malaysian state of Sabah. There are more than 60 natural harbors and a total coastline of almost 12,000 miles in the archipelago that stretches nearly 1,100 miles north to south and 700 miles from east to west. Manila Bay, covering 770 square miles is the main port.

Shipping and international communication facilities are good and urban mail service is adequate. Airmail to and from Manila and the United States takes four to eight days. Material sent by surface mail takes four to six weeks. Telephone and cable services are also reliable and the Philippines is now linked via communications satellites with global communications. Manila has ready access to other regional money markets in Asia such as Singapore, Hong Kong and Tokyo.

The islands have a total land area of 116,000 square miles, slightly smaller than Japan. More than half of the land area is made up of mountains and forests. The climate is tropical. A wet season, which in Manila is in the second half of the calendar year, brings rainfall averaging 90 inches for the country as a whole.

Quezon City, located on the island of Luzon adjacent to Manila, is the capital and has a population exceeding 800,000. The metropolitan area of Manila has a population of more than 4 million. Almost 70 percent of all the people in the Philippines live in rural areas.

The three official languages in the country are English, Pilipino and Spanish. Pilipino, the national

language which is based on Tagalog, is a required course in all schools. English is used by most middle-income people, and is spoken or understood by an estimated 40 percent of the total population. It is the language of the courts, government and commerce.

The literacy rate for Filipinos over 10 years old is more than 83 percent, and almost one-fourth of the total population is in public or private schools. Spain brought a strong Catholic influence to the islands and today more than 80 percent of the population are Roman Catholics. Ten percent are Protestant. Seven percent are Moslem, living mainly in the southern islands. Most of the people in the Philippines are of Malay stock.

The Philippine Government

At present the Philippines has a presidential form of government under its own version of martial law. From 1946 to 1972, it was a republic modeled on the United States system of government.

On September 21, 1972, President Ferdinand Marcos, who then had 15 months remaining of his second term, declared martial law in response to a threat to internal security. Congress was suspended indefinitely. President Marcos announced a program that included land reform, an end to corruption and inefficiency and to criminal syndicates. A new Constitution, superseding the one of 1935, was approved overwhelmingly in a referendum of citizen assemblies called "barangays" in January 1973, and signed into effect by President Marcos the same month. It provided for a single-chamber parliamentary government headed by a prime minister, who would be elected to six-year terms without limits on reelection.

The transition provisions of the 1973 Constitution call for the creation of an interim National Assembly with the incumbent President serving as the interim Prime Minister. President Marcos has suspended the convening of the interim National Assembly and has proclaimed the continuation of martial law. Under the relatively relaxed martial law that is now in effect in the Philippines, the government and the military continue to be under civilian authority and the courts function as usual. The entire armed forces total only about 80,000 men and have a low profile in most parts of the country. In July 1973, the present government announced that continuation of martial law was approved by the citizen assemblies throughout the country by a majority of more than 90 percent.

The new Constitution provides that all proclamations, orders and decrees issued by the President during the transition to parliamentary government shall be part of the law of the land, and shall remain binding until modified or revoked by the President. In January 1974, President Marcos announced that he had signed a decree providing for a successor in the event he could not continue in office during the transition.

In the troubled area of Mindanao, where there has been a Muslim rebellion growing out of widespread economic inequalities in the region, President Marcos is attempting to increase developmental projects designed to aid the Muslim population.

The Economy

As in most southeast Asian countries, the Philippine economy is based on agriculture which accounts for one-third of the national income and half of the labor force.

Lumber and logs are the country's leading export, followed by sugar, most of which is sent to the U.S., coconut and coconut by-products. Like several other developing countries, the Philippines is attempting to phase out the export of raw materials in favor of the production of finished products like plywood. Agricultural products, such as abaca (hemp) are expected to be in increasing demand domestically and abroad, compared with synthetic products derived from crude oil. The country also has abundant fish and marine life resources. Its territorial waters are about six times the country's total land area.

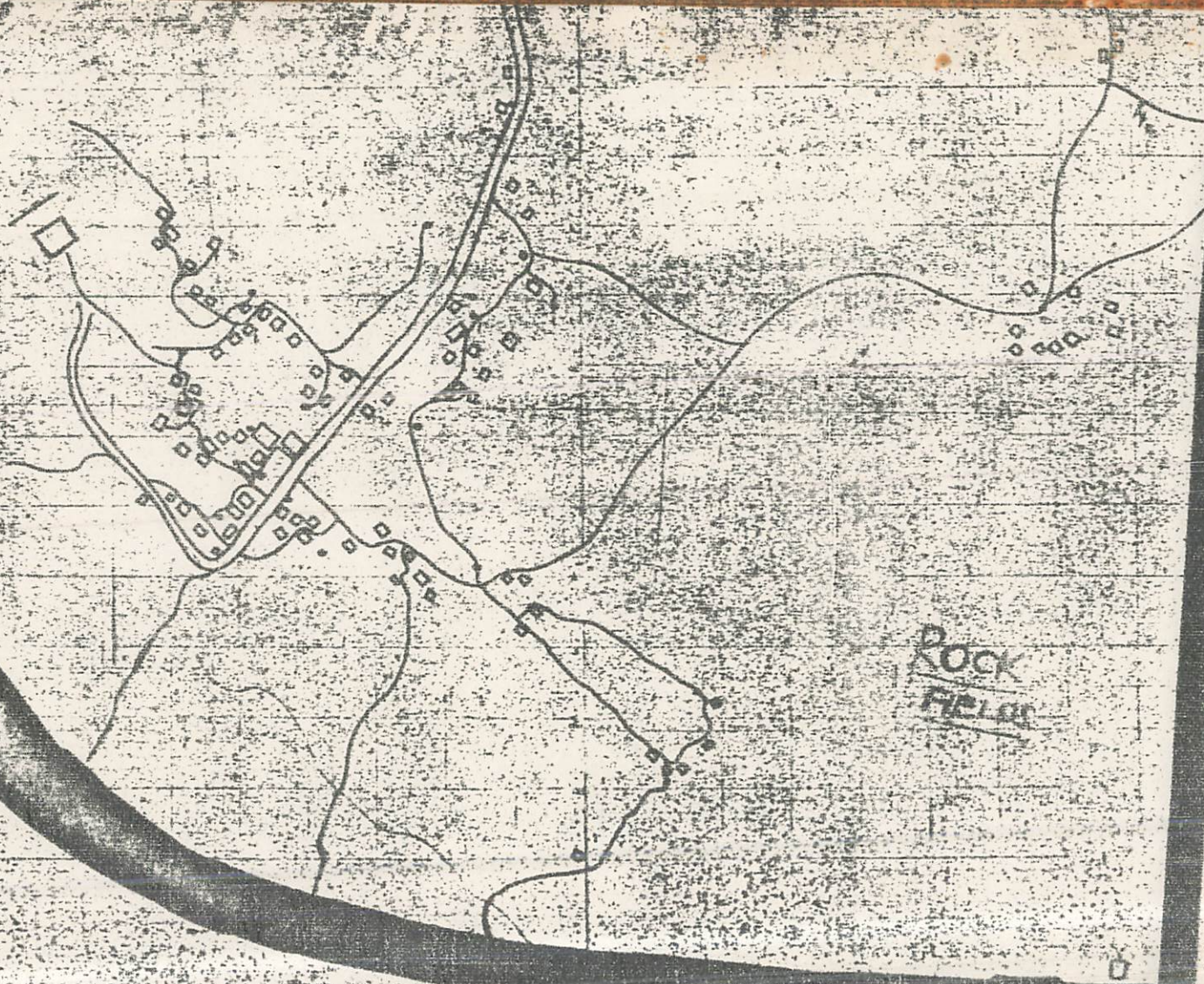
The Philippines is among the largest producers of copper. The copper industry has experienced rapid expansion in the last decade, with production growing annually at a rate of nearly 20 percent. Copper prices have increased six-fold in the last ten years. Copper export earnings were 68 percent higher in 1973 than in 1972. The country began exporting gold in 1971, mostly to the United Kingdom, and this is now the second largest mineral export. Other materials of economic importance are cement, coal, gravel, feldspar, phosphate rock, and pyrite. The overall annual rate of extraction in the Philippines has been estimated to amount to less than two percent of the country's known mineral reserves.

The country's economy had an exceptionally good year in 1973. The Gross National Product, in real terms, reached a record growth of 10 percent. Agricultural production grew at a rate of 11 percent. Philippine exports were 77 percent higher in 1973 than in the previous year, increasing the share of exports in GNP to 23 percent. In 1974, according to Philippine officials, the real GNP is expected to rise again by at least 7 percent.

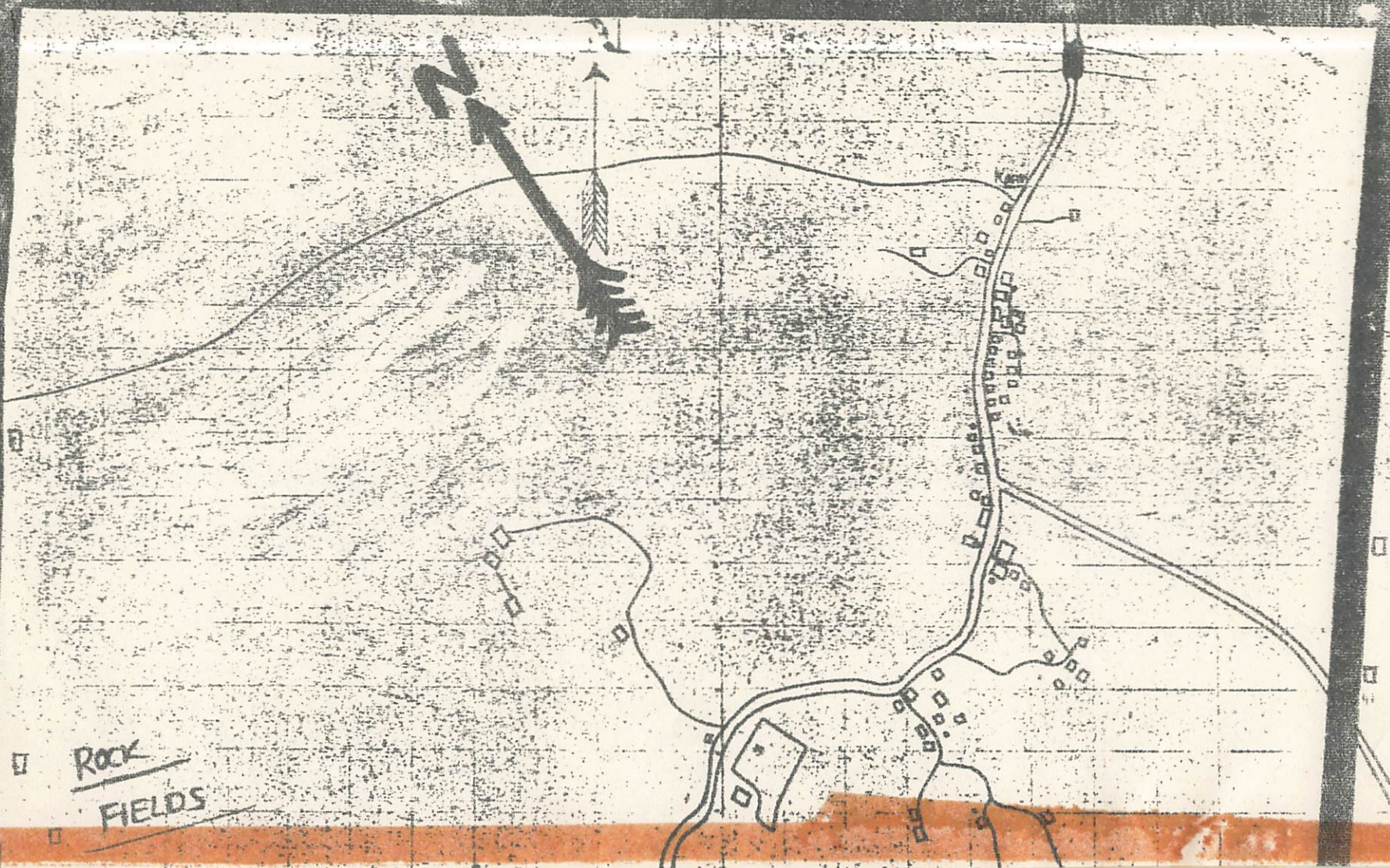
GROSS NATIONAL PRODUCT BY EXPENDITURE SHARE
1971 to 1973
(At Current Prices)

	Value in Million \$			% Increase (Decrease)		% Distribution		
	1971	1972	1973	(1971-72)	(1972-73)	1971	1972	1973
Gross National Product	7,449	8,511	10,632	14.3	24.9	100	100	100
Net Export of Goods & Services	(40)	(68)	568	(68.38)	837.55	(.54)	(.79)	5.35
Export of Goods & Services	1,324	1,410	2,494	6.5	76.8	17.8	16.6	23.50
Import of Goods & Services	1,364	1,478	1,926	8.3	30.3	18.3	17.4	18.10
Total Consumption	5,996	6,723	7,976	12.12	18.64	80.49	78.99	75.02
Private Consumption	5,384	6,021	7,192	11.8	19.4	72.3	70.8	67.60
Public Consumption	612	702	784	14.7	11.7	8.2	9.2	7.40
Total Gross Investment	1,523	1,683	2,065	10.5	22.8	20.4	19.8	19.40
Private Gross Investment	1,402	1,488	1,817	6.16	22.14	18.81	17.48	17.09
Public Gross Investment	121	195	248	60.4	27.4	1.6	2.3	2.30

Source: Philippines National Economic and Development Authority.



ROCK
FIELDS



ROCK
FIELDS

THE MAKING OF A FILIPINO NATION

Titles of Period	AN ASIAN EMPIRE OUTPOST Beginning 1520	CONQUEST AND COLONIZATION 1521 1945	NATION BUILDING THROUGH SELF GOVERNMENT 1946 1971	NATION BUILDING THROUGH ECONOMIC SELF RELIANCE 1972
Common Terms and Key Groups and Significant Names	Code of Calantiao The Barangay System Sri Vishaya and Madjapahit Empires Datu Puti and Marikudo	Encomiendo System Kagalang Galangan Kataastaasan Kati- punan (KKK) Lapu Lapu Jose Rizal Andres Bonifacio Manuel Quezon	SEATO (Southeast Asia Treaty Organization) Filipinas First Policy Dicameral Congress System Ramon Magsaysay	New Society Land Reform Trisectoral Congress Department of Local Government and Commu- nity Development (DLGCD) National Economic and Development Authority Madame Imelda Marcos
Events	Great Wave of Migrations (Indonesian and Malayan) Purchase of Panay by 10 Malay Datus from Borneo Trade and Commerce with Asian Neighbors (e.g. China) and Arab Merchants	Landing in Mactan and Annexed by Spain (named after King Philip of Spain) 1898-Philippine Revoltr 1898-Spanish/American War and American Colonial Rule 1935-Commonwealth Govt. 1942-Japanese Occupatn	July 4, 1946 - Inaugura- tion of Philippine Republic 6 Presidents Elected Luis Taruc (leader of Huk movement) Surrenders Resettlement to Mindanao	President Marcos Presents Philippine Version of Martial Law Peking Revisited; Diplomatic Ties Re- established Infrastructure Programs
Residue	Bayanihan Lif Style Barangay System Philippine Value System	Christianization Enrichment of Arts, Symbols & Literature American System of Public Education	Autonomy Democratic Government Freedom of Religion and Speech	Expansion of Tourist Industry Development of Local Resources Government-Streamlining and Professional Training of Bureaucracy

GLOSSARY OF TERMS RE THE MAKING OF A FILIPINO NATION

CODE OF KALANTIAW (CALANTIAO): The second oldest known written penal code of the Filipino people. It was written during the reign of Rajah Kalantiaw, the third chief of Panay, in 1433. The oldest known written body of laws is the Maragtas Code of 1250 A.D.

BARANGAY SYSTEM: The government of pre-Spanish Philippines was patriarchal in form. The unit of government was the Barangay, so named after the sailboat which brought the early Malay (free people) immigrants to Philippine shores. The Barangay was a settlement containing 30 to 100 families. The Datu was the chief executive, legislator, judge, and military commander in the Barangay.

SRIVISHAYA EMPIRE: The Srivishaya Empire emerged from the ashes of Pallavas Maritime colonialism and dominated Malaysia from the 8th century to 1377 A.D. Founded by indianized Malays, it was basically Malayan in might, Hinduistic in culture, and Buddhist in religion. The two main centers of Srivishaya influence in the Philippines were Sulu and Visayas.

MADJAPAHIT EMPIRE: The complete downfall of Srivishaya, as a result of the assault of Madjapahit arms, occurred in 1377. The Madjapahit Empire extended its sovereignty over the former colonies of Srivishaya and other territories such as Formosa, Thailand, Cambodia, Indo-China, plus sections of Borneo and New Guinea. The regions where its power was strongly felt were: 1) the Manila Bay district in Luzon, 2) Sulu Archipelago, and 3) the Lanao district in Mindanao.

DATU PUTI: At the time when Malaysia was dominated by the Hindu-Malay Empire of Srivishaya, 10 Bornean Datus fled from Borneo, with their families, warriors and slaves, to escape from the tyranny of Sultan Makatunaw, the island ruler. The minister and leader of the expedition was Datu Puti.

MARIKUDO: Marikudo, Ruler of Panay and leader of a tribe known as Atis (Negritos). The lowland of Panay was sold by Marikudo to Datu Puti. The purchase price consisted of a gold "Saduk" (wide-brimmed hat) for Marikudo and a long gold necklace for his Queen.

ENCOMIENDA SYSTEM: Spain transplanted to the Philippines the medievalistic economic organization known as the Encomienda, which strikingly resembled Europe's feudal system, with the Encomienda itself simulating the fief; the Encomendero, the feudal lord, and the Filipinos, the vassals. The Encomienda was a piece of territory, including its inhabitants and resources, which the Spanish king granted to conquistadores and colonizers as a reward for their services to the Crown.

LAPU LAPU: Lapu Lapu, chieftain hero of the Battle of Mactan, defied Magellan who demanded that Lapu Lapu pay tribute to the King of Spain. Legend has it that he was the one that killed Magellan in the Battle of Mactan.

KAGALANG GALANGAN KATAASTAASAN KATIPUNAN (KKK): On a night in July 1892, the day when Governor Eulogio Despujol's decree banishing Rizal to Dapitan was published, a handful of men met at a house on Azcaraga Street (now Claro M. Recto Avenue) and before a flickering lamp, took an oath to bind themselves into an association known as the Kagalang Galangan Kataastaasang Katipunan Nang Manga Anak Nang Bayan (highest and most respectable society of the sons of the people). It was headed by Andres Bonifacio (1863-1897), who came from the lowest class of the native society. Politically, the society was to struggle for the attainment not only of freedom, but also of independence.

JOSE RIZAL: Jose Rizal (1861-1898), national hero, wrote two novels which were considered subversive materials during his time. He was executed in Bagumbayan Field (now Luneta) for treason. He studied medicine, literature and languages in Spain.

MANUEL QUEZON: A successful politician who became the President of the Philippine Commonwealth. The Commonwealth was considered as an experiment in self government; an interim period of adjustment prior to full independence from the United States. This covered political, social, and economic spheres.

BAYANIHAN LIFE STYLE: The working together of citizens and residents of a community.

RAMON MAGSAYSAY: Ramon Magsaysay (Secretary of Defense and then elected President) had Congress pass the Agricultural Tenancy Commission and set up the Court of Agrarian Relations, whose main function was to settle satisfactorily and promptly all tenancy disputes. His administration is remembered as having given the masses serious attention as no other Filipino Chief Executive had ever done.

SEATO (Southeast Asia Treaty Organization): SEATO, also known as the Manila Pact, was organized in 1954. It demonstrated the willingness on the part of the Southeast Asian signatories to commit themselves to the cause of western democracy.

LUIS TARUC: Luis Taruc was head of the Hukbalahap, an organization which became a Communist inspired movement.

THE LAPU LAPU STORY

The City of Lapu Lapu is a legislative creation of the 4th Congress of the Philippines under Republic Act 3134 which was approved by President Carlos P. Garcia on June 17, 1961.

Lapu Lapu City exercises jurisdiction over twenty-nine barrios most of which are found on the island of Mactan. The other islands are Olanggo, Pangan-an, Cauhagan, Caubian Daku, Caubian Gamay and Sulpa Islands. The population figures are 80,000 which are evenly distributed among its barrios.

The most prominent of the islands is Mactan with an area of 15 square miles. It is historically the landmark of the first resistance to foreign aggression. The story goes that on the early part of the 16th century, an expedition bearing the sails of Queen Isabela of Spain, proud of its superior arms and speeding with fury, claimed the islands including Mactan as the new territory of the kingdom of Spain. As a new territory the chieftains were directed to pay tribute to the King of Spain. Lapu Lapu, the chief warrior of Mactan, defied the order. This angered Ferdinand Magellan, leader of the expedition, who told the resisting chieftain to prepare for an attack.

Undaunted and jealous of their freedom, Lapu Lapu consulted his councils who agreed to fight the Spanish invaders. On the dawn of April 27, 1521, the Spaniards sailed to Mactan to teach the chieftain a hard lesson. On the island shores, Lapu Lapu and his men waited with their ingenious warfare. In this battle, Magellan and his invading men met their humiliating defeat. This historic fight became the epic story of the Philippines.

Mactan Airport is one-hour flight to Manila by jet and is also a connecting station for flights between Manila and other cities in the Visayas and Mindanao. This International Airport can handle the biggest commercial and military aircraft.

The island of Mactan is linked with mainland Cebu through the newly opened Mandaue-Mactan Bridge.

Lapu Lapu City has an income of ₱2,984,000.00 (Fiscal Year 1974-75). There are three major industrial firms which have helped boost the city revenues and provided the city revenues and provided employment for Lapu Lapu residents: the General Milling Corporation, Cebu Shipyards and Engineering Works and Mobil Oil, Philippines.

Its traditional economy since the 16th century was based on maritime activity. Its early pre-Spanish commercial contact was mostly with the Islamized Malaya of the South. Traders from Brunei came frequently bringing oil, porcelain, earthenware and precious stone. In exchange the Mactan-Cebuanos traded gold, slaves and products of the sea and soil.

The present tourist attraction of Mactan Island is its gift and a promising source of revenue. The beaches of Marigondon, Buyong, Punta Engaño and Olap are very popular. The fishing industry provides for adequate local consumption and sale in the mainland. Milkfish are raised and cultured in barrios Kalawisan and Babag. Guitar making is the best known industry of

THE LAPU LAPU STORY

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Lapu Lapu City and it has attracted thousands of visitors who wish to see for themselves just how they are made. Rope weaving is just as ancient as the guitar industry and grape culture is catching on rapidly.

The Mactan islanders are religious, peaceful and law abiding. The majority of its inhabitants are sea-faring and adventurous. It is estimated that at least 60% of the marine and deck officers, seamen and crew members of domestic shipping vessels are Mactan islanders. A great number are also employed in international maritime shipping.

"Mactan Island is just a spot on the map. But the role it has played in Philippine history make its people proud of their heritage."



Schumacher and his popular paperback: Let the machine suit the man

Thinking Small

Elliot Richardson read 100 pages one evening while sipping brandy before his London fireplace. Ralph Nader carries a worn copy in his raincoat for reading on airplanes. Jerry Rubin presses it on friends because he loves the book. And at a recent press conference, Gov. Jerry Brown of California waved a copy in front of reporters, declaring, "If you want to understand my philosophy, read this."

The book that has made disciples of mavericks as well as Establishmentarians is "Small Is Beautiful,"* an unorthodox treatise on "economics as if people mattered" by British economist Ernest Friedrich Schumacher. Published in December 1973, the unpretentious paperback sold only 47,000 copies the first year and was virtually ignored by reviewers. By January 1976, however, a wave of word-of-mouth endorsements had pushed sales to 110,000, and last month alone, 12,000 copies were sold.

Schumacher's central message is deceptively simple: the economic system should serve man, man should not serve the system. Modern economists, he maintains, have established material growth—in the form of the gross national product—as the chief measure of social progress. As a result, economics has become a pseudo-science in the service of a pseudo-philosophy—materialism—in which greed and envy are justified through the meretricious worship of continuous and unlimited growth.

Schumacher argues that economists need a new set of moral values, and in a brief philosophical chapter—which has won him a wide counter-cultural fol-

lowing—he compares the economics of materialism to an economic system he derives from Buddhism. "While the materialist is mainly interested in goods, the Buddhist is mainly interested in liberation," he says. The modern economist assumes that a man who consumes more is automatically better off than one who has a statistically lower standard of consumption. But a Buddhist economist, Schumacher notes, "would consider this approach excessively irrational: since consumption is merely a means to human well-being, the aim should be to obtain the maximum of well-being with the minimum of consumption." In short, says the 64-year-old economist, man can better meet his needs by scaling down his wants. On this view, small is not only beautiful but usually cheaper and more humanly satisfying as well.

Cash-Poor: The German-born Schumacher, who spent twenty years as chief adviser to Britain's National Coal Board and was a friend of John Maynard Keynes, is not opposed to machines or even to bigness as such. What he wants is a technology scaled to the human needs of a given community and one that will enhance the health, beauty and permanence of the local environment. Schumacher himself has put his theory into practice by establishing the Intermediate Technology Development Group, which does research, produces a journal and designs products. Over the last decade the private company has helped dozens of developing nations create technologies appropriate to their labor-intensive, cash-poor circumstances.

Schumacher's firm offers models of a \$16 hand-operated metal-banding device that Nigerian villagers use to make

their basic agricultural tools; the cheapest machine available to do the same job requires electricity and costs \$1,750. The group also designs plants for recycling small amounts of paper (most recycling plants are built to process at least 100 tons a day—more paper than most Third World communities can accumulate). Other "intermediate technology" products: ox-carts using old automobile tires, and a 20,000-gallon tank for catching rainwater that costs Botswanans \$40 to build. "If a country is arid but poor, it does no good to spend millions on desalination plants," explains Schumacher. "The Good Lord sends water and the trick is to catch it when it falls."

Schumacher's ideas are beginning to influence economic-aid policy. The U.S. Congress has authorized \$20 million for the Agency for International Development to help develop small-scale machinery that Third World villages can use to build up local industries and thus stem the migration of unemployed workers to overpopulated cities. In agriculture, the goal is to develop animal-powered harrows and plows that are more efficient than primitive hand-pulled devices yet cheaper than expensive Western combines. "When bulldozers were sent to Asian nations to replace shovels, we turned their values and culture upside down," says Carl Madden, a top economist at the U.S. Chamber of Commerce. "I agree with Schumacher that the rich nations must walk softly through the rice fields."

Energy: Whether Schumacher's ideas will inspire changes within American society is another matter. Congress is currently considering two bills that would authorize several million dollars to establish regional research-and-development centers devoted to intermediate technologies. In California, Governor Brown has recently appointed a Schumacher disciple, Sim Van der Ryn, a Dutch-born professor at the University of California, as his state architect. Through the state's new office of "appropriate technology," Van der Ryn is training technicians to build simple solar water heaters, thus cutting down on the state's energy bill.

True to his sense of scale, Schumacher himself believes that large, capital-intensive technology has a place in a nation as vast and rich as the U.S. The problem in this country, he believes, is not so much the scale of technology as the scale of management. Just as the nationalized British coal industry decentralized into a confederation of small "quasi-firms," Schumacher says that American big business—and big government—should reorganize into smaller, more manageable organizations. Presumably these and other ideas will be spelled out in his two forthcoming books: "Good Work," scheduled for publication in the fall, and "Guide for the Perplexed," due next year.

—KENNETH L. WOODWARD with JOHN BARNES in London and JAMES BISHOP Jr. in Washington

*303 pages, Harper & Row, \$2.45.

BACKGROUND STATISTICS BASED ON 1970 CENSUS; SUDTONGGAN BASED
ON PARTIAL SURVEY

	NATION	LAPU	BASAK	SUDTONGGAN
Population		79,318	4,524	under 15: 753apr
Female		39,607	2,335	195 383
Male		39,711	2,189	178 370
Persons 10 yrs old & over		53,817		
Persons eco'ly active		25,051		
Persons not eco'ly active		28,567		
Number of hospitals		1		
Number of beds		75		
Private Hospital				
Public hospital				
Number of deaths	Cebu Province			
attended	17,958			
examined	3,027			
simply reported	13,702			
Number of foetal deaths	1,229			
hospital	632			
physician	239			
nurse	266			
midwife	8			
others	14			
not stated	77			
	28			
Literacy 6 yrs-over				
both sexes		39,073		
female		19,935		
male		19,138		
Total # of teachers FY'71-72				
elementary		462		
secondary		462		
Total # of schools				
elementary		40		
secondary		9		

BACKGROUND STATISTICS BASED ON 1970 CENSUS; SUDTONGGAN BASED
ON PARTIAL SURVEY

	NATION	IAPU	BASAK	SUDTONGGAN
Number of dwelling units		11,870		aprx. 150
single		11,415		
duplex		210		
apartments		78		
barong-barong		78		
commercial		84		
industrial		1		
institutional		4		
agricultural				
Employed workers				
10 yrs old & over		20,818		
female		6,909		
male		13,909		
Number of households in occupied dwelling units: by type of water supply used				
Total # of households		11,781		
piped water		753		
artesian well		1,951		
pump		1,074		
open well		7,388		
spring		41		
rain water		573		
Number of households in occupied dwelling units: by type of toilet facilities used				
Total # of households		11,781		
flash water sealed		1,153		
antipolo closed pit		1,322		
open pit		990		
public toilet		73		
none		8,043		none
Number of households in occupied dwelling units: by type of lighting used				
Total # of households		11,781		
electricity		1,118		none
kerosene or gas		10,470		
oil		70		
others		123		

BACKGROUND STATISTICS BASED ON 1970 CENSUS; SUDTONGGAN BASED
ON PARTIAL SURVEY

	NATION	LAPU	BASAK	SUDTONGGAN
Number of households in occupied dwelling units: by type of cooking fuels used				
Total # of households		11,781		
electricity		84		
kerosene or gas		569		
gas (air)		559		
wood		10,535		
charcoal		4		
other		30		
Livelihood skills available				Approx.:
rope weaving				167
carpentry				43
farming				43
fishing				28
cottage industry				21
laborer				19
small business				14
driving (tricycle)				10
rock cutting				5
seamanship				3
dressmaking				1

Mactan 5 PCC

CAUSES OF DEATH - JANUARY-JUNE 1975

	Phase I 1-20	Phase II 20-40	Phase III 40-60	Phase IV 60+
Malnutrition	25		5	3
Disease	123 fetal dis measles bronchitis asphyxia pneumonia liver influenza asthma still diarrhea birth meningitis	8 gangrene epilepsy mental dis. influenza	16 diabetes anemia liver pneumonia	14 influenza ulcer pneumonia diabetes
Injury	2	5 poison suicide		2 lightning
T.B.	5	8	15	8
Cancer Leukemia	6	5	14	7
Heart Failure	5	3 hypertension high blood	13	18
Senility				36 Ages 130 127 126