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An educational program on indigenous foods for better health and better economy for the Philippines.

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AN EDUCATIONAL PROGRAM ON INDIGENOUS FOODS
FOR BETTER HEALTH AND BETTER ECONOMY FOR THE PHILIPPINES

A Dissertation Presented

By

DAHLIA C. ASPILLERA

Submitted to the Graduate School of the
University of Massachusetts in partial fulfillment
of the requirements for the degree of

DOCTOR OF EDUCATION

May 1986

Education

Dahlia C. Aspillera

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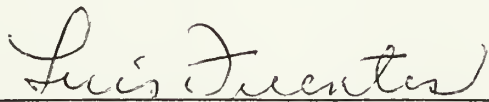
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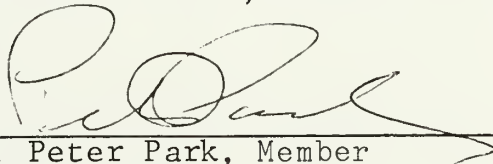
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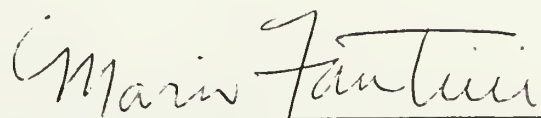
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Dr. Sonia Nieto, Member



Dr. Peter Park, Member



Dr. Mario Fantini, Dean
School of Education

DEDICATION

I owe a particular intellectual debt to my Mother, Paraluman Santos-Aspillera and to my Grandfather, Lope K. Santos, ideologue-thinkers and crusaders both, whose writings provide the framework for my own analysis. Also to my Father, Ludolfo E. Aspillera, for his faith in me, and his fear for my life in my commitment to the Periphery; and to my pride and joy, the very special Cha, who withstood my seemingly interminable research.

Lastly--Nanay, baka ayaw n'yo pa niyan!

Christmas 1985

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ABSTRACT

AN EDUCATIONAL PROGRAM ON INDIGENOUS FOODS
FOR BETTER HEALTH AND BETTER ECONOMY FOR THE PHILIPPINES
(May 1986)

Dahlia C. Aspillera

B.S. Education, Master of Education

Doctor of Education

University of Massachusetts

Directed by: Dr. Luis Fuentes

This study explores the nutritional and economic needs of the Philippines suggesting as a solution the return to indigenous staple foods. It culminates in a Teacher Training Workshop created to bring together Philippine public elementary school health education teachers to dialogue why a state of nutritional well-being is elusive in the communities they are serving. Teachers will be trained to remedy this deprivation, a direct effect of colonizer/colonized relationship resulting in economic disorder.

Chapter I presents background information, problems to be resolved, definition of terms, and gives evidence of a technologically and culturally advanced pre-colonial

Philippines. Chapter II details the political and economic disorder which resulted from colonizations. A review of literature on global food production is included in this chapter. Chapter III is a review of literature on liberating curriculum by educators who reflect in their writings their concern for this disorder.

The literature demonstrates that in the course of current events, and in the need to get ahead, people unknowingly or otherwise cause the exploitation of others. Nowhere is this more evident than on the issues of global small-farm conditions. Powerful Country small farmers who are today living in economic destitution are the same farmers who for decades have caused not only despair but starvation among Oppressed Country small farmers.

This study identifies tools to measure the economic and nutritional value of indigenous foods. Two such instruments are introduced in Chapter IV, the Food Intake Diary, and in Appendix A, the Comparison of Nutrients in Interchangeable Foods. The Workshop, Chapter V, takes for its theme the recognition of the most crucial of needs in Oppressed Countries, locally grown foods.

The materials and hand-outs included in this educational program are puzzle pieces to understand the relationship between Oppressed Countries and Powerful Countries where the two sides are not partners and not sharing equitably. The curriculum questions those in power

in their traditional handling of development issues in Oppressed Countries. The teachers and later their pupils, who will be the future farmers, will decide who are the victims and who are the beneficiaries of this economic disorder.

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C H A P T E R I

INTRODUCTION TO THE DISSERTATION

Once upon a time there were two farmers on adjacent lands. One was a bully, the other was meek. Through the years, Bully helped himself to Meek's farm. Meek didn't mind. They were both Christians; this made them brothers. Livin' was easy; there was a lot of free time and the harvests were plentiful. Sponging off Meek helped stabilize Bully. It also came to pass that the two neighbors had a chance to do joint ventures. Meek, ever trusting, ended up bankrupt, with his farm, hut, and beddings owned by Bully. Meek was eating pandesal with sugar, suffering from kwashiorkor, and was classified protein and B-vitamins deficient by WHO. He was living on aid sent by PL480 which he could buy cheaply.

At this point, Bully called on Meek, looked the pathetic figure over, and gave him some old textbooks on initiative, Gini coefficient, Achievement and Aptitude tests, and drew for him some development graphs on aggregate growth and GNP.

Most importantly, Bully offered Meek a loan, or several if he so desired. As collateral, Bully took everything of Meek that could be taken.

Recipe for

PANDESAL

7-8 cups white flour

1 tbsp yeast

1 cup warm water

Soften yeast in water. Mix flour, kneading well. Shape dough into size of egg. Sprinkle with salt. Allow to rise to double in size. Bake. Suggested selling price: a nickle a piece.

A cheap, convenient meal for the poor: Split in half and sprinkle with sugar.

FOREWORD TO THE STUDY

Many statistics and a review of literature indicate that economic condition in the Philippines specifically, and in most Oppressed Countries in general, continue to worsen. The main project of this analytical research, A Teacher Training Workshop, is designed to give the educator a role in interpreting and countering this economic situation.

The Workshop uses a nonformal education technique with emphasis on studies on the movement and manipulation of the most basic of needs, food. This educational program concentrates on one cause of poverty--rural displacement resulting from the disruption of internal supply and demand of indigenous foods. The emphasis in this curriculum is at once global and local showing a sequence in a critical analysis of existing beliefs, formation of eating habits, and nutritional know-how. The significance of this program is that no Philippine curriculum has been developed to bring attention to what the people are eating and why they are eating what they are eating.

In the Philippines, the need to cut down on imports is common knowledge. But the average Filipino's idea of imported items are Revlon lipsticks, French perfumes and Japanese watches. Few are aware that these items have little impact on the national economy. The drain on the national

treasury, and its effects on economy, national health, well-being, and self sufficiency is the importation of food which competes with, and underprices comparable indigenous commodities. The importation of staple foods which Filipinos, both rich and poor, eat more than once a day drains as much of the national treasury as imported crude oil.

SIGNIFICANCE OF STUDY

Specifically, the two adversaries to an existing favorable food balance in that country are 1) the Western surplus grains shipped in, resulting in the disruption of the internal supply/demand of indigenous staples; and, 2) the lack of nutrition information concerning a white flour-based diet. Mountains of surplus grain in the Powerful Countries these past three decades which have to either be sold abroad or bulldozed into the ocean have something to do with the enormous amounts of grain imported into the Philippines. The result is the privation of the livelihood of farm workers, and a change in Philippine eating habit.

A specific concern needs to be stressed on a white bread-based diet. Impoverished Filipinos do not have the usual fillers that Westerners have in their refrigerators to make nutritious sandwiches. The poor Filipino has sour soup,

swamp cabbage (kangkong), boiled peanuts and fermented krill (bagoong), none of which go with bread. They do not have hamburger patties, mayonnaise, an assortment of cheeses, tender lettuce, cold cuts, egg salad--the protein-rich fillers that make eating white bread acceptable. The impoverished and malnourished Filipino makes a meal of white bread sprinkled with sugar or spread with jelly or margarine.

This educational program looks at the surplus of Western grain which Western media seldom talks about when it covers the economy of the Oppressed Countries. This Program will also look at the reasons behind these issues being less publicized. There is a discrepancy between the beliefs of the people who depend on Western media for information on Oppressed Countries and those who have other sources of information, such as seeing the foreign situation with their own eyes. The tragedy of this biased communication dissemination is that the people--the Westerners--who see the world through the eyes of the media may be the future decision-makers on when, how much, and should their surplus food be unloaded on and sold to Oppressed Countries. It is crucial therefore that decision-makers receive unbiased information. Their decision could affect the livelihood and well-being of majority of the world's population.

The basic overall question to be answered ultimately by this study is not what is in it for the teacher, but what is

in it for the teacher's elementary pupils, who will be the future disenfranchised farmers making up two-third of the population. These farmers have been and up to the present are deprived of their livelihood because those in power allow food to come in by foreign ships instead of out of the local soil. Those in power claim that it is cheaper to import grain. The truth is that foreign grain growers do not sell cheaply. What the billion dollar grain growers can do if necessary is underprice any two-meal-a-day native farmer, thereby pushing him further into starvation.

The Filipino farmer can be given back his livelihood by allowing him to feed his country's population and the educator can help bring this about.

ASSUMPTIONS

Parents are familiar with the personalities of Dr. Seuss's characters and Sesame Street moppets because the children bring their learnings and narrations to their parents.

The goal of this curriculum is for the children to bring home other narrations--why, for instance, corn farmers are moving to the cities. "Because everyone is buying imported corn." One assumption is that what is in quotes is not common knowledge in the Philippines. This information will

lead to other probing questions. Another assumption is that it is to the advantage of the Oppressed Countries that the answers to these questions be available to pupils at a very early age.

It is also the assumption of this curriculum that others (other than the home food preparer) can influence children's dietary habits. These "others" should include the teacher. This curriculum sees elementary school teachers as an under-utilized resource on the issues of food preferences and changes in eating patterns; issues of great impact on national economy.

Another assumption of the curriculum is that there exist myths relating to food shortages which are popularized by the Western press. One such myth is that starvation is the result of drought, poor farm management and overpopulation in Oppressed Countries. There is then a need for a curriculum to bring into the elementary school the issues of famine and starvation. The final assumption is that this curriculum will familiarize the teachers of activities that lead to a suspiciously man-made starvation such as what is occurring in northeast Ethiopia, and the undernutrition in increasing number of localities in the Philippines, a country where seeds thrown out of the window even in December will sprout.

METHODS AND PROBLEMS

This research undertook four supporting projects:

1. A Comparative Study of the Nutrients of Concern in Interchangeable Food (Appendix A).
2. A Statistical Analysis of the Philippines (Appendix B).
3. The Food Intake Diary as an educational tool for dietary nutrient analysis, and how the Philippine survival meals rate in the recommended dietary allowance (Chapter IV).
4. The Educational Program Workshop on Indigenous Foods, the main project of this dissertation (Chapter V).

The Workshop (Chapter V) is designed to challenge its learners, to move them beyond the domestic and oppressive, on to new ideas and other possibilities. This Workshop comprises two three-day weekends, each day covering a unit. Materials and activities provided for each unit will hopefully be covered within a day. The people running the Workshop have the option to delete materials to make each day more manageable.

The Workshop is primarily concerned with food economics of Oppressed Countries and people's well-being which begins with availability of food. Philippine farmers, given the opportunity, are quite capable of providing the population of the Philippines with its food and nutrient requirements.

This Teacher Training Program proposes to encourage such self-sufficiency. This study's curriculum shows that by allowing and encouraging the local farmers to develop the indigenous flora and fauna of the Philippines, and allowing the population to rely completely on readily available, indigenous foods, even without the benefit of nutritional training, the tropical inhabitant will receive his/her needed food nutrients. That effect is an improvement in national economy and the return of their livelihood to two-thirds of the population, the farmers. This is the ultimate goal of program.

Where it is necessary to understand the nutritional value of indigenous foods in these studies, the Massachusetts Nutrient Data Bank, located at the Food Science building of the University of Massachusetts- Amherst campus, was utilized by this study as a resource and teaching instrument. The MNDB is a research, diagnostic, and educational tool currently in use by many major educational institutions nationwide and internationally. Non-nutritionists are able to identify and understand the study of nutrients of concern with the aid of the Data Bank. It is designed to make complex and comprehensive dietary evaluation. It contains nutrient composition information for approximately 7000 foods, complex recipes, food ingredients, vitamin and mineral supplements, and nonprescription medications. These data have been accumulated from the United States Department of

Agriculture sources, food manufacturers, the scientific literature, and other food composition tables (Philippines, Thailand, China, East Asia, Africa, Peru, McCance and Widdowson, etc.)

Non-nutritionist can easily learn to complete a food intake diary without the aid of a data bank. There are formulas to be understood, terminologies to be remembered, quantitative meanings of nutrients to be identified and understood, but the end result will be an extremely useful and interesting skill that is most beneficial for the learner. A detailed explanation of a food intake diary is given in Chapter IV. In isolated areas where there are no doctors or nutritionists, health education teachers can simulate the process introduced by the Data Bank manually, with paper and pencil, with the use of Food Tables, a tedious but worthwhile process. This exercise creates awareness of food nutrients among their pupils. It is advantageous for them to have a better understanding of the function of food, and share this understanding with the pupils. And where the speed and efficiency of data banks is required and can be afforded, the MNDB and others such as it can be used as a resource.

This research has added into the Data Bank approximately 300 foods indigenous to the Philippines and other Southeast Asian countries. Currently available computerized food intake data collection and coding

methodologies has been modified for use in the Philippines. Nutrients of particular concern in most tropical, Oppressed Countries include: total utilizable protein, absorbable iron, calcium, folate, B-12, zinc, and magnesium. Lack of nutritional information accounts for these nutrient deficiencies rather than unavailability of nutrients in indigenous foods.

The software which accompanies this extensive collection of compositional data makes it possible to perform complex calculations of dietary status... amino acid scores of mixed protein in meals, absorbable iron (Monson Balintly, USDA, 80:307, 1982), niacin equivalents, and daily nutrient subtotals provided by various major and minor food groups... in addition to the intakes of 23 other nutrients. Nutrient intakes have been subtotaled according to food groups to examine the current food consumption pattern.

While it is impossible to plan the incorporation of each material provided into one day in every Workshop, the Facilitator might find it useful to be aware of the value of every hand-out and activity and fit into the day as many of the materials and activities provided as possible. The Data Bank was utilized by this researcher for her own quantitative and qualitative understanding of food nutrients. It was also utilized for its speed and efficiency since time is at a premium for any graduate student. It was utilized by this study because it was accessible, convenient and free. There

are localities or even countries where the use of computers is not feasible, and even counter-productive. In these localities, the same process accomplished by the Data Bank is just as easily simulated with paper and pencil just as multiplication and division can still be done manually.

DEFINITION OF TERMS

Oppressed Country. The Periphery; The Have-nots. The poor majority--not the Elite--of an exploited country. There are more commonly used terms to describe this group of countries--Poor, Small, Underdeveloped, Developing, Newly Emerging, Non-oil Producing, Nearly Developed, Colonized, South, etc. but none of these terms accurately describe the history, circumstances, immense human and natural resources, and the existing situations in these countries. ("Third World" is not used in this paper. This label sounds like an ethnic slur, not accurate and outdated.)

Powerful Country--North America, Eastern and Western Europe, Japan, Australia, New Zealand--the Core or The Haves.

FCPA. US Foreign Corrupt Practices Act of 1977 attempts to curb bribery by prohibiting [US] firms from making or authorizing payments, offers, promises or gifts for the purpose of 'corruptly' influencing actions by governments

or their officials in order to obtain or retain business for a company (Reid and Timmerman, 1982).

FAO. Food and Agricultural Organization of the United Nations--30 years in existence with approximately 6000 in its employ including some in its little known ICP (Industrial Cooperative Program). This Program's formative policy was that the [US] government should encourage cooperation... to interest specific companies in the private sector to engage in business in the developing countries. Today about 25 percent of ICP's members are US firms, and a third Common Market agribusiness: Ralston Purina, Corn products/CPC, Archer Daniels, General Mills, BP, Shell, ICI, Unilever, etc. These ICP companies pay a fee to belong, and the amount is administered by FAO to support the program's activities.

WHO. World Health Organization of the United Nations--30 years in existence, and sister organization of FAO.

PL480. US-created promoter of the Green Revolution imposing provisions known as self-help measures to which recipient country governments are obliged to commit themselves. These measures include creating a favorable environment for private enterprise and investment and development of agricultural chemical, farm machinery and equipment.

CARE. Cooperative for American Relief Everywhere. As with 67 other voluntary agencies, receives direct assistance

from the US government and receives American agricultural commodities under PL480 Food for Freedom Program.

TNNA. Transnational News Agencies. The word "transnational" implies that management and ownership is in the hands of more than one country. This is not necessarily so. TNNA produce, process and distribute news and increasingly, specialized information through its four predominant agencies--the Associated Press (AP), United Press International (UPI), Reuters, and Agence France-Presse (AFP)--and the two largest television news enterprises--Visnews and UPITN (Richstad, 1984).

HYV. High Yielding Variety seeds of food grains requiring ideal soil and atmosphere conditions, tremendous amounts of imported chemical input, at great cost to ecology and the economy of the small farmers. There is much evidence that the promised high yield is not realized by farmers in the neocolonies who cannot afford this input. "Heavy losses on the HY rice variety IR42 have led the Malaysian government to withdraw the seeds." (International Agricultural Development, 5:3, Reading, UK)

Staple crops. Food eaten daily in significant quantity; therefore crops that provide a livelihood and fair profit to local farmers. Rice, a staple food in the Philippines, may or may not be a staple crop depending on how much of it the Philippines imports. (Zucchini, tomatoes and such, although a great favorite, are not staple crops, and

seldom provide a decent livelihood for the Filipino small farmers.)

Decent livelihood. An income that guarantees the next month's meals, shelter from the elements, protection from occupational hazard, access to school, medicine, hospitalization, and a decent burial.

Education. Any learning that influences the quality of life. In its most common definition, education is the result of a nation molding its schools to the service of its system.

Self Reliance. Dependence on one's own cultural and natural environment for initiative, problem solving and decision making leading to self-improvement and community development rooted at local level. Nondependence on, and alertness to gifts of a Trojan Horse.

Self Help. Community based groups which work voluntarily on agenda aimed at specific group needs or problems. Rejection of aid from outsiders as a mechanism to help oneself and others.

Participation. Involvement by the people in all aspects of development in order to control and shape their own destiny.

Community Development. Based on the belief that the abilities and energies of the people in a community can be used to improve their own lives through the use of the

sharing (the success and failure) processes and voluntary efforts.

Nonformal Education. Any organized, intentional, and explicit effort to promote learning to enhance the quality of life through out-of-school approaches. It is learner centered, has community-oriented context, and a nonhierarchical relationship of facilitator and learner.

Justice. Calls for the establishment of a society in both a global and national scale where each person has an equal right to the most extensive basic liberties. A system where social and economic inequalities are so arranged that they are to the greatest benefit of the least advantaged, and where they are linked with position and appointments which are open to all through fairness and equality of opportunity.

IN THE BEGINNING

The activities of the different organizations and agencies listed in the previous pages have been extensively written about elsewhere. Anyone interested in the global scope of their activities need only to write the public relations office of each. The statements in the Definition of Terms are supplementary information reflecting the thesis of this study. Specifically, this study rejects the more popular descriptive words attached by Western media and agencies to non-powerful countries. A brief narration of the

conditions in the Philippines prior to Western colonial oppression will clarify the inapplicability of such words as "underdeveloped," "newly emerging," "poor," and the rest of the more popularized terminology.

Man was in the Philippines as early as 22,000 years ago. The Tabon Man discovered in Palawan in 1962 was positive proof of this. It seems that the Tabon people or others before them and not Magellan discovered the Philippines. The Tabons appear to have come to that country by means of the land bridges. The History of the Filipino People (Agoncillo, 1967) tells the reader of the subsequent waves of migration: Aetas, the primitive negrito, followed by the proto-Malay from Borneo. The world's ice melted 7,000 years ago and the land bridges connecting the Philippines to the rest of the Asian continent disappeared. Tall, light-skinned migrants now referred to as "Indonesian A" arrived by boat. They practiced dry agriculture and produced their primary food, root crops and millet. A thousand years B.C. came immigrants from Indo-China and South China, the stocky and dark, with thick lips and large noses "Indonesian B." Little is recorded on other migrations beyond this point, until fairly recently.

Upon this Malayo-Polynesian foundation, the Filipinos were later inheritors of two cultural infiltration: on one side was the influence of the Hindus, and on the other side, the civilization of the Chinese (Hunter, 1966). These

cultures made up the personality of Philippine inhabitants hundreds of years before the Spaniards' first assault in 1521. Hunter wrote: The pre-Spanish Filipinos lived in planned communities and had a distinct culture. Already in practice were the arts and music familiar to the most advanced peoples of that time. Dance was popular, mostly the repetition of motions of daily activities set to music and performed to rhythm. The most common type of Philippine folk songs at that period consisted of a verse of two or three lines for a solo singer with repeated chorus or refrain which was sung by everybody. The binding of words, music and movement were very typical of the Polynesian islands of which the Philippines is a part.

The superiors or elders recited the mighty deeds of the ancestors with gong beating and string instruments while a refrain was sung and moved to rhythmically by the audience. Thus the memory of a significant event was kept alive. This practice of creating verses and putting verse to music recorded events which took place in the recent past, but will be passed on to generations. This manner of recording history was also practiced in painting humorous satire and the social foibles of the times. The well documented Barter of Panay of the 12th century must have been recorded in this manner. The barter was between Panay island's original dwellers, the kinky haired, short, black people called Atis and the homeless Malay aristocrats who sought to settle in

the Philippines' lush plains. The visitors were adorned with gleaming gold helmets and ornaments. The Atis allowed them, without bloodshed, to remain in exchange for their gold. The ritual which sealed the barter was a message of love and peace for it was a colorful reminder of peaceful barter and coexistence.

The words of the folk songs at the period of pre-Spanish colonization were verbal traditions of the folk art of the individual localities. Reflecting the folk philosophy, they also were records of happenings within their world which were significant to a group of people living in that area.

The Filipinos had a machinery of government of their own (Barangay) and maintained a system of jurisprudence, the Code of Kalansiyaw, circa 1400, a set of unwritten and customary laws of the third chief of Panay, a descendant of Datu Sumakwel (Agoncillo, 1967). While most evidence of pre-colonial Philippine culture were systematically eliminated and destroyed by colonizers, one that they were not able to destroy is the Ifugao Terraces, built around the 12th century. To collect trickles of water from mountain-top springs, early Filipinos hand-carved mountain-sides to create terraces for crops. These terraces are still intact, efficient and grow crops to this day.

Alphabets and writings existed before the Spanish colonization. There were ordered cities and towns. They

wove cloth of cotton and hemp, and other luxury, gossamer fibers of pineapple and banana. The inhabitants were experts in metal working, were skillful shipbuilders and carpenters. The Mexican Galleon ships were all built in the Philippines, not Spain, as some Western records show (Agoncillo, 1967). The ships were completed on strictly Filipino knowhow and materials, considering that the Spanish friars and the mostly illiterate Spanish soldiers promptly recognized little need to do physical work. The Filipinos knew about shipbuilding and tropical timber, which tree (age and specie) to fell to make sturdy and pliant booms and poles and sidings for the ships to bounce off cannon balls and bullets of attacking sea pirates. Fernandez (1981) writes of Philippine boats which carried as many as a hundred oarsmen, and natives who already knew how to smelt iron into cannons before the arrival of the Spaniards. The Filipinos knew and used gunpower from the Chinese even before 1300 when it was not yet introduced in Europe (Hunter, 1966). This advanced culture was of pre-1500 Filipinos, advanced materially and technologically. In 1521, under the patronage of Queen Isabela of Spain, sailors landed in these chain of islands referred to by the historian Ptolemy as Mayi. The Spaniards were met with

cannon fire, and found within the walls of the city factories where guns had been forged as well equipped and orderly as any in Europe (Hunter, 1966).

Here starts the Western colonizations of the Philippines, and the next chapter details the resulting political and economic conditions.

C H A P T E R I I
THE DISENFRANCHISED

The Spanish Regime

"The pedagogy of the oppressed begins when they affirm that they are persons, and as persons should be free of being hosts to their oppressors." (Paulo Freire, 1968)

The Spanish sailors came to claim land and wealth. The Spanish religious came to save heathen souls. Soon, claiming land and wealth became the priority for all. It was in the province of Bulakan, home of this writer's ancestors where, in 1571, Spanish friars first set up their archdiocese.

The Spaniards built a church at the center of each village, and all religious, social, recreational and cultural activities revolved around the church. In the task of converting those whom they considered heathen, the Spanish friars worked to erase the early Filipinos' old and radically different faiths. To ensure acceptance of the new faith, the friars retained features of the ancient Filipino rituals over which they superimposed the rituals of their church. The Ati-atihan, the Philippine religious procession, is witness to this. All evidence of pre-1500 Philippine culture were removed and consigned to the seas. Archeological projects of the past decades have yielded well-preserved objects. This writer was assistant to a consultant to Philippine

archeologists and helped to decipher inscriptions in old Philippine alphabet on pre-1500 jars and plates.

Oppression

As with all colonizers, it did not take long before the Spaniards, both religious and military, turned into oppressors. All "Indios" as the Spaniards called the Filipinos, became possessions of the Spanish crown. Even the Indio's domestic animals (hogs, chickens, carabaos, etc.)--all sources of revenue and tith--had to be registered with the church. Unfaltering devotion and propagation from all Filipinos were required by the church. The more children and the bigger the families, the bigger the parish, the more working hands, the larger the amount collected that went back to Spain. Land was the largest source of revenue. Land which used to be anyone's and everyone's, now belonged to the religious, who in turn leased them to the Filipinos. The family of Jose Rizal, Philippine national hero, whom the friars had shot, had to lease land from the Hacienda Calamba, owned by the Dominicans. The Dominicans evicted thus: "... It was mandated that tenants be evicted should they fail to vacate... The eviction of the tenants and the burning of the houses were carried out... many of Rizal's townmates had been driven out and deprived of their land, homes and harvest of rice, sugar, etc... 300 families as of that date. Some had lived under the shade of the trees, and those who lived in

towns took to the streets, for it was prohibited to give lodging to the evicted. [Rizal's sister, Narcisa] also described the cruelties committed against the dispossessed." (Fernandez, 1981)

Despite the friars' determination to pillory the Filipinos into timidity and docility, the scenes of blood paralleled that which blot the history of Spanish power in South America. The Inquisition proceeded unabated. None were exempt from its power. The cruelty of the Guardia Civil (rural police) earned the fear and hatred of the Filipinos. Government and church were the same. Such offenses as failure to kiss the hands of the friar upon meeting were punishable by verbal abuse and even a slap in the face. Priestly ambition and desire of domination in time usurped the place of the enthusiastic and pious missionaries. The power of the church is compared to Calvin's theocratic state in Geneva of the 16th century or the hegemony of the Jesuits in Paraguay (Fernandez, 1981).

The major resistance started when the first generation Filipinos of Spanish paternity were brought into the religious orders to become friars. Many of them sympathized with the Filipinos and openly fought the church oppression. This sympathy put this Filipino coadjutors of the church in a precarious situation. Those who were sympathetic to the natives were defrocked or incarcerated. This writer vividly

recalls anecdotes narrated by the very old members of the community about Spanish-Filipino priests who became too sympathetic to natives and were "sent away" with destinations unknown. Such abuses were often met with revenge. Before the Cavite Mutiny of 1872, a mestizo lieutenant of the guards, Cuesta, staged a revolt in Nueva Ecija. Three Spanish priests denounced him, and although he was given political asylum at the British Consulate, they gave him up upon the insistence of the Spanish authorities. He was hanged (Fernandez, 1981).

Rizal is recorded to perceive that the development level of the Filipinos' rights was many decades behind those of other colonies. In India, which was never considered at par with England, the degree of freedom of expression that Gandhi enjoyed since he became a lawyer in Bombay in 1893 was greatly superior to that enjoyed by any Filipino, despite the repression by the British (Fernandez, 1981).

Resistance

Many revolutionaries emerged, one of them being Marcelo H. del Pilar (1850-1896) born in the same province of Bulakan. Although one of the lesser known Philippine heroes, in the supremacy of nationalism, he is depicted as superior to all nationalists. He finished law, became a Mason, and he wrote several articles against the friars in a publication based in Malolos (Bulakan) under his pen names Plaridel and

Piping Dilat (alert, perceptive mute). For these articles the authorities took action against him. He was served a court summons, but before the judgment was passed, he was advised by the Committee on Propaganda to leave the country in order to avoid detention (Fernandez, 1981). Using the pen-names, he dared the ultimate crime which none had dared before. This was in 1882 with the printing of a revolutionary tabloid, Diariong Tagalog (Tagalog newspaper) wherein he wrote of patriotism, friar sovereignty and atrocities, exposed the injustices and the sad state of his country.

Jose Rizal, a contemporary who was later to collaborate from abroad, was recorded to have asked, "Who is Plaridel? Why couldn't we have a hundred more Plaridels?" (Aspillera, 1970) Diariong Tagalog was the first bilingual paper in the Philippine press. In the summer of 1883 while in Barcelona, Jose Rizal expressing his nationalism by referring to Spain as "foreign land" fulfilled his promise to Basilio Teodoro, administrator of the Diariong Tagalog, by sending him an article which he entitled El Amor Patrio. He signed it Laong Laan, a pen-name meaning "prepared long since," or "predestined." It was published in number 20, issue of August 1883. During his stay in Barcelona, Rizal wrote various articles for the Diariong Tagalog which, however, never saw the light of print for the simple reason that the paper folded up. He contributed his writings gratuitously

receiving only reimbursement for mailing cost (Fernandez, 1981). The political part of the newspaper's contents were seditious enough, but the irreverence against the church alienated even the local populace whose religious fervor overshadowed their nationalism. Diariong Tagalog shook the world of the friars and became a big bolt on their authority because it published goings on in the convent and parishes of Spanish friars. Del Pilar's activities and numerous publications brought cohesiveness to the revolution of 1898 against the Spanish domination of the Philippines.

Another uprising, less violent, involved this writer's maternal great-grandmother. It was the 1870s. Maria Bautista, then 19 and newly married, led a group of young women to await the carriage of a local parish priest before daylight of a Sunday morning. This religious made a habit of spending Saturday evenings and other evenings too, gambling and drinking at nearby towns. He did his Sunday ministering drunk. That morning as he drove his horses back to town, the women (not one man among them) overpowered the carriage, dragged the priest down from his carriage, wrestled from him the holy black cassock he was wearing, put him back in his carriage, turned the carriage around and told him never to come back. He never did.

US Regime

" ... seeking the best treatment,
 I will do with thee what the ancients
 did with their sick, exposing them on
 the steps of the temple so that every
 one who came to invoke the Divinity
 might offer them a remedy...."
 (Jose Rizal, 1886)

"Without a slave there is no master," has been the consistent theme of Paulo Freire (1973) in all of his writings. In situations where there were no slave-countries and no master-countries, there was equality and equitable trading. With this activity, all lived, and all needs were fulfilled. This biblical dictum of sharing was adapted and reworded by one Ricardo to become an economic law, the Ricardian Doctrine of Comparative Advantage. "This concept was originally suggested in the writings of David Ricardo nearly 200 years ago. This kind of specialization, according to Ricardo, would not only lead to more wealth for all nations, but to the greatest possible improvement in living conditions for the people." (Works and Correspondence of David Ricardo, P. Sraffa, Vol. 1, cited by Lofchie and Commins, 1984) This Ricardian Doctrine, modified and redefined by economists since, shows that communities are served if they concentrate on producing those goods which they have much of... provided that the communities are equal

in power.

This section analyzes an unbalanced relationship, that of the Philippines and the United States, which has resulted in the debilitation of the victims. The issues are human rights and exploitation of the voiceless class. This is effectively accomplished in two ways. Firstly, through a wage of approximately US\$1.30 for a full day's work in export-oriented industry. Secondly, through the slow strangulation of the independent farmers, who make up 68 percent of the population. The problem begins when a farmer is unable to sell his latest harvest of grain because he cannot compete with the fluctuating price of imported grain. Beaten, he voluntarily or otherwise abandons his farm which was his father's father's father. He joins a Liberation Front, the last recourse for the dispossessed, displaced, indigent farmers, victims of the foreign grain growers' takeover of the food market. Wherever Liberation Fronts are, there are government soldiers on search-n-destroy orders, sometimes called civil war. Alternatively, the farmer moves in with unemployed kin at an urban shanty-town. His slow starvation has begun.

Such a trade between unequal partners is not the Bible's idea of sharing, nor David Ricardo's idea of Comparative Advantage. Still, with this Doctrine in mind, the US took over the Philippines to fulfill its needs for a market, cheap labor, and natural resources. Not partners

and not sharing equitably, the task at hand was succinctly stated by George Kennan of the US department of State:

We have 50 percent of the world's wealth. But only 6.3 percent of its population. This disparity is particularly great between ourselves and the people of Asia. In this situation we cannot fail to be the object of envy and resentment. Our real task is to devise a pattern of relationships which will permit us to maintain this position of disparity without positive detriment to our national security.

J. B. Fernandez (1981), author of Jose Rizal, Filipino Doctor and Patriot, analyzes Rizal's article in La Solidaridad entitled "The Philippines, A Century Hence": "The article gives us an accurate idea of the political ideology of Rizal in 1889, although somewhat moderate or restrained for obvious reasons. With prophetic vision he makes the hypothesis that if the Philippines were to gain independence, neither England, nor France, Germany, nor least of all Holland, would think of acquiring the Philippines, but that the United States could have intentions of gaining possession of colonies in the east. History has proven Rizal right; what he failed to foresee was that the colonial designs of the United States were against its traditions.... Nobody would have guessed then, much less a person as candid, true and loyal as our hero, that having such a tradition, and with the purity of the Declaration of Principles in Virginia of June, 1776, the United States would later proceed with a colonial policy based on swindling, demagoguery and economic

exploitation. The promises of [E. Spencer] Pratt, Consul of the United States in Singapore, made to General [President Emilio] Aguinaldo, of recognizing Philippine independence under a Filipino government, were reiterated by Commodore [George] Dewey while already in Cavite in the presence of the former, and of high officers of the squadron during the Proclamation of Independence. This was apparently a mere show, with the aim of continuing the insurrection against Spain under Aquinaldo."

Dr. Fernandez continues: "When the Americans landed large contingents of forces during the last week of June to prevent Aguinaldo's taking possession of Manila, the latter realized that the Americans were there to stay indefinitely. The Spanish colonial policy was reactionary, but at least it was open and the Filipinos knew what to expect. The policy of the United States was dominated by fraud and hypocrisy, the Americans pretending to be emancipators of the Filipinos when in fact they were new colonizers who would stay for 48 years in order to implement its economic domination of the Island."

The First Liberation

Historians of differing persuasions give conflicting versions on how the United States involved itself in the Filipinos' struggle for freedom from Spain. But when the smoke died down in 1902, Spain was the loser, the United

States the winner, and the Philippines was again a colony, minus 300,000 Filipino war-dead. Behind these figures are stories of atrocities which make events in Mai Lai in Vietnam and the activities of Rambo nonchalant. A typical letter written by a soldier from Kingston, NY:

Last night, one of our boys was found shot and his stomach cut open. Immediately, orders were received from General Wheaton to burn the town and kill every native in sight, which was done to a finish. About 1,000 men, women and children were reported killed.... (Poole and Vanzi, 1984)

"When the American military found to their discomfiture that the Filipinos were a stubborn people, they resorted to extreme measures to soften the Filipinos' will to fight.... In their desperation, the American soldiers turned arsonist--burning whole towns in order to force the guerrillas to the open. Balangiga was a peaceful little port off the southern tip of Samar but it was garrisoned by Americans.... Many American soldiers who garrisoned the town were veterans of the Boxer Rebellion and had participated in the capture of Peking.... Suddenly... about 180 Filipinos fell upon the Americans many of whom were killed instantly. The news of the guerrilla attack gave rise to pained cries throughout the United States and so President Theodore Roosevelt gave orders to pacify Samar. Assigned to the task was General Jake Smith. 'I want no prisoners,' he said firmly. 'I wish you to kill and burn; the more you burn and

kill the better it will please me.' Forthwith he ordered that Samar be transformed into 'a howling wilderness.' Orders were also issued to shoot down anybody capable of carrying arms. General Smith meant to include even boys ten years old, for the latter could carry rifles and swing bolos. In 6 months, Balangiga became 'a howling wilderness.'" (Agoncillo and Alfonso, 1967) And in its July 28 issue, the New York World carried the story:

...our soldiers here and there resort to horrible measures with the natives. Captains and lieutenants are sometimes judges, sheriffs and executioners.... 'I don't want any more prisoners sent into Manila', was the verbal order from the Governor-General three months ago.... It is now the custom to avenge the death of an American soldier by burning to the ground all the houses, and killing right and left the natives who are only 'suspects.' (Poole and Vanzi, 1984)

The Second Liberation

The preceding sums up the first liberation of the Philippines from Spain by the US (1898). The following is an account of the second liberation of the Philippines by the US from the Japanese (1945).

There was wartime austerity and deprivation, but Manila remained intact throughout the World War II years. The major problem of the urban areas from 1941-45 was an oil shortage and its ramifications on industry and transportation. Because of lack of transportation from the farms to the cities, city people felt the shortage of food, but those in

the rural areas fared well considering that the country, the world was at war.

To ease the vegetable shortage, the enemies [the Japanese] ordered people to plant vegetables in every available space. To set the example, the enemies converted the tennis courts and soccer field of the Casino Espanol at the back of Jai Alai on Taft Avenue, into a huge vegetable garden. (Leynes, 1976)

In 1945, Douglas MacArthur returned to liberate the Filipinos from their enemy. In the process of liberating the Philippines, he brought battalions of very young Americans and tons of ammunition and for a few days the country was carpet-bombed, and fields and waters were mined to get rid of the enemy. The American forces, in ridding the country of the Japanese, carpet-bombed the city and killed half of most of the families in Manila. This writer's family's big, old house with solid mahogany floor and mother-of-pearl panes burned while the family was still in it. Within the first few hours of American liberation, she lost several grand-uncles, aunts, cousins, and her father's father who was hit on the temple by shrapnel. The family watched Lolo bleed to death in an overcrowded basement where there wasn't even enough space to stretch him out. Adults ran for their lives saving nothing but children. Within days the Philippines was war ravaged, and Manila, a city of 2.5 million people, was levelled.

To ameliorate the disaster brought about by such liberation, the US passed the Philippine Rehabilitation Act to provide war damage payments to the Philippine government and individual Philippine claimants. (Years later, this writer's mother was still writing letters to the Rehabilitation Commission, but not getting any restitution for property destroyed or lives lost.)

Overjoyed by the prospect of rehabilitation checks, Filipinos gave little notice to another Act that was latched on to the Rehabilitation Act--the Bell Trade Act.

The disposition, exploitation, development and utilization of all agricultural, timber, and mineral lands of the public domain; the waters, minerals, coal, petroleum, and mineral resources of the Philippines, and the operation of public utilities shall, if open to any person, be open to citizens of the United States and to all forms of business enterprise owned or controlled, directly or indirectly, by United States citizens (Buss, 1977).

The Act stipulated free entry of American goods into the Philippines without quotas for eight years and thereafter subject to gradually increasing tariff for twenty years, paying full duty by 1974. (President Ferdinand Marcos declared Martial law the year before, and its imposition was to discouraged investigative inquiries into, among other things, Tariff laws.) Multinationals proliferated in the Philippines not only because of the expansion of US investments overseas at that time but also due to the

attraction of Parity Rights offered to American business. Parity Rights gave special treatment to the US in terms of equal rights with Filipino citizens to exploit the natural resources of the country (Villegas, 1984).

The year was still 1945. While Filipino farmers were removed from their farms by bombs, their counterparts in the US were overproducing "amber waves of grain." White flour was loaded on ships and months later unloaded in devastated countries, the Philippines and Japan among them.

Conditions in the Philippines can be best explained in terms of how such circumstances came about in other societies.

The first American wheat shipment to Japan had gone as postwar relief. After that, Japanese ate steadily increasing amounts of wheaten products. The average consumption rose from 30 pounds a person of flour a year before WWII to almost 90 pounds a person by 1955. After Public Law 480 in 1954, the USDA accelerated its dietary proselytizing, sponsoring school lunch programs, training for [Japanese] bakers, and department store exhibits that introduced the Japanese to such American foods as pancakes (Morgan, 1979).

The complementary activities of government and industry of the US was again evident when Japan tired of the low-protein, white wheats sold by the US and shifted to high protein Canadian wheat.

This shift spread alarm at the USDA and plans were prepared for an American counterassault. The FCCC [Federal commodities] moved some of its stocks of

midwest (high protein) wheat... at prices competitive with Vancouver... invited Japanese bakers and millers to the US to show them the qualities of these midwest varieties. The USDA and private lobbyists pressed for, and obtained lower freight rates for grain shipped by rail to the West Coast. Simultaneously, the State and Treasury departments increased pressure on Japan to pare down the size of its trade surplus with the US by buying American (Hopkins, 1980).

Today, white flour bags in the Philippines carry the marking "Canadian Type" listing various nutrient enrichment except for the nutrient of greatest concern for the Filipino poor, protein. The rise in sale of white flour and other agricultural goods to the Philippines and the rest of the world has been recorded by the monthly USDA publication, FATUS (Foreign Agricultural Trade of the US). With less leverage and bargaining power than Japan, the Philippines has since been supplied by the US with its surplus grain and agriproducts to the detriment of Filipino farmers, who make up two-thirds of the population (Hunter, 1966).

It is most significant that at this period (WWII) at the opposite side of the world, Latin America also used the opportunities offered them in more effective ways than in later years. "During the war, there was no inflow of physical and financial capital. Latin America used what they had and built with what they had." (Bruton, 1970) This seems to indicate that Latin America was much more productive and self-sufficient during the war years when they produced their own. The same could be said of the Philippines.

The advent of IMF/World Bank go-go banking ("Wanna loan?") and opportunity for unexplained wealth for a few well-placed individuals in the Philippines ended this productivity and self-sufficiency for the majority, and marked the beginning of "CocaColanization." The why and how of CocaColanization is explained by Maccoby (1978):

"A friend invited me to Bohemian Grove, a summer encampment north of San Francisco, where corporate presidents meet cabinet secretaries, senators and generals, university presidents and a few movie stars.... It was a totally male society (even the meals were served by men) and the adolescent macho quality was emphasized by the fact that you were encouraged to urinate against the nearest redwood tree.... What seemed more significant was the presence of federal and military officials, mostly to influence the business executives, informally and through daily lakeside talks....

"A top State department official reported on the US South Pacific Trust, describing the growing discontent of the Micronesian islanders who want independence. 'If we examine our effects on the island culture, we see they have a real case,' the official admitted. 'Before the US arrived, the natives were self-sufficient, picked their food off the trees or fished. Now, they'd starve without a can opener. Some of the radical independence leaders want to reverse this and

develop the old self-sufficiency. We can't blame them. However, we can't leave. We need our military bases there. We have no choice. As some of my friends in Washington say, you've got to grab them by the balls, their minds and hearts will follow.'

"The message to the business executives was to rally 'round the flag, for glory and national security."

A narrative such as Maccoby's ought to be common knowledge, but it is not. Writers and researchers in the payroll of commercial food producers and exporters insist on other reasons for the poverty and discontent of the exploited. Maccoby's narration deals with self-sufficiency, which was the national goal in the Philippines in the 1950s with the implementation of Import Substitution Industrialization. ISI failed, but its failure was due again to manipulation and not its lack of merit. There was a need to impose Export Oriented Industrialization (EOI) a system that appears to breed on a rich man's inhumanity to a poor man.

W. Shawcross (1984) examines the way the world responds to the results of man's inhumanity to man. The Western press in 1979 alerted the world of a famine it claimed was sweeping through Cambodia. The author was there to chronicle the performance of the food-bearing organizations (UNICEF, CARE, Oxfam, UN High Commissioner for Refugees, International Red

Cross, World Food Program, Catholic Relief Services, World Council of Churches, etc.) This book is a sequel to his first, Sideshow: Kissinger, Nixon, and the Destruction of Cambodia (Simon and Schuster, NY, 1979) which commences with an account of the secret American bombing of that country (an activity not known even to the US congress). Between Shawcross's two books, one can contemplate the ease and speed with which to destroy an Oppressed Country, the breaking point of an oppressed people, and the ruthless vengeance with which they strike back. The reader can also contemplate the effectiveness, or lack of it, of international mercy agencies. Displaced, on the run, unable to farm, and starving, the more violent among the oppressed adopted the name of the old, idealistic Khmer Rouge, and so licensed, created a post-1975 regime bent on the massacre of oppressors and the bourgeoisie and anyone vaguely resembling either. The displaced, on the run, unable to farm, and starving non-Communist Khmer Liberation Front were caught in the middle. With their farms fallow, the population became dependent on food aid--staple foods grown on the other side of the world, food that came in by ship.

Food Importers

"We must produce a disembowelment of the incipient economy of this country...in order to increase and help our aims. We have to prolong its tragic tormented and revolutionary life; the wind must only blow on our sails and the water must only wet our keel." Contained in a letter written by H. V. Rolston, a United Fruit affiliate to his company lawyer." (Gerassi, 1963)

Dependency on food that is grown at the other side of the world and comes in by ship leaves an Oppressed Country economically in disarray. High school economics teaches that any country that imports its staple food goes economically downhill. Today in the Philippines, every other meal eaten is with white flour (pandesal, white sliced bread, white flour bun, donuts-as-meals, white flour noodles, white flour pastries, confections, etc.--wheat flour replacing indigenous flours). This may sound all right, but it is not, because wheat is an exogenous product in the Philippines. Although able to grow wheat (Philippine Governor Jose Basco y Vargas's inaugural address to Economic Society of Friends of the Country, Manila, 1781, cited by de la Costa, 1967, p. 130) the Philippines does not now grow wheat. It just imports

about a million tons of grain annually. A small number of government officials and grain merchants know this, but the average pandesal-eating Filipino does not know and does not care that the white farina of his pandesal is imported. Not too subtle exogenous pressures brought about this rapid change in Filipino eating habits, and consequently, a radical change in the people's nutrition. Dr. Nevin Scrimshaw (1979) with the Nutrition Department of Massachusetts Institute of Technology, states:

We have published elsewhere that the poorer the quality of protein, particularly those limiting in lysine, the greater the discrepancy between the amount actually required to obtain nitrogen balance. With a protein as poor as wheat gluten, over 100 percent more is needed, too large an amount to consume.

Wheat has been milled, at least to some extent, for thousands of years, as is plain from the reference to 'fine flour' in Leviticus (5:11). But with the invention of new kinds of equipment, millers were able to produce a white flour entirely devoid of the bran and germ--thus removing the most nutritious part. Most of the vitamins and minerals found in wheat are contained in the germ, which supplies nutrients for the initial growth of a new plant. Modern white flour, as compared to whole grain flour has much of the original nutrients missing despite manufacturing additives (enrichment) (Dunmar, 1975).

White bread and white rice have been regarded as high-status foods because they were imported foods which only the wealthy could afford. The development of this apparently maladaptive preference came about because of the problem of spoilage. If wheat were not milled, it cannot be stored for very long before the large amounts of fat in the whole grain is spoiled by insects and bacteria. Whole grain breeds healthy insects and bacteria. "Spoilage" is another way of saying that the microorganisms proliferate and stay in good health in the grain especially in the hot climates. (Rapid spoilage of the nutritious part of the grain is the reason why a jar of wheat germ must be kept in the refrigerator, while a bag of white flour can keep indefinitely without refrigeration.) The removal of the nutritious part of the grain through milling therefore allows grains, which are harvested only at certain times of the year, to be stored between harvests and carried on long, hot ocean voyages without spoilage. The wheat exporters must sacrifice the nutrients to maintain their profit and trade.

The tragedy of this maladaptive preference is that in time the technology of milling reached the Oppressed Countries. The local millers now mill only white rice to compete with the imported. The poor and the rich are now eating white rice and white bread from which bran and germ containing the nutrients of real concern have been removed. The eating of white bread became more maladaptive after the

economic decline in Oppressed Countries. Up until then, people who could afford this luxury food presumably obtained the nutrients lost to milling from a variety of other foods. Only when technology and agrochemicals began to produce in quantity a white flour that is at once inexpensive and lacking in even the nutrients it once contained, did it begin to be accountable for dietary deficiencies.

Feed and Seed Importers

The animal feed which Philippine animal breeders import from their Western companies have more protein than what the poor people are eating. Animal feed contains soybeans, which in its original form has more protein by weight than meat. Nutritionists from the World Health Organization and UNICEF ought to recommend that the imported soybean animal feed be fed to ill-nourished humans, and if the animals need food, cheap white flour, high in calories, should be fed to the animals.

Chapter I stated that the white bread-eating poor do not have the protein fillers that go with bread. The white flour shipped from the West results in a low protein diet for the poor in the Oppressed Countries. The animal feed that, again, is imported from the West has considerable soybean protein. In the course of decades, hardy (self-supporting)

indigenous meat animals such as pigs and chickens have been replaced by Western high breed varieties. To begin with, these problematical high breed varieties have no place in the predominantly peasant economy of Oppressed Countries. These varieties require heavy capital investments and high costs--pig sties, skilled veterinary care, clean water, vaccines, special equipment, medicines, special feeds, the last four items and the animals being supplied by Western agribusiness.

In the Philippines, media pushes the positive effect of Green Revolution introduced high yielding rice seed varieties such as the M99. "M99 was presented to tenant farmers and small holders as a package: A low interest, no collateral credit system tied to the use of high yielding rice seed varieties, fertilizers, pesticides, and herbicides. Patterned after the Puebla Project in Mexico, M99 was viewed as a way of bringing the Green Revolution to smallholders. Part of its appeal lay in the tantalizing prospect it offered of achieving greater productivity...." (Bello et al., 1982) Dale Hill, World Bank technocrat is quoted in Bello's book, Development Debacle--The World Bank in the Philippines:

One of the most attractive things about M99 was that it could do all this without antagonizing any part of the population in the same way other programs (particularly land reform) did. With M99, everyone appeared to be a winner.

But later on the same page:

The poorest smallholders, however, were never included, and at its height in late 1974, only 36 percent of all small rice farmers participated in the credit program. As one Bank report observed, 'There was some bias against the smaller farmers, in that credit was not extended to very small farms because these farms were mainly subsistence and would not generate sufficient income to repay the loan.'

Food First (Lappe and Collins, 1978) writes extensively on this irony of forcing problematical, fastidious seeds on subsistence farmers, and feeding more protein to animals than to humans. Food First is not a recipe book as its cover appears to be, but an analysis of the exceedingly complex and misrepresented political-economy of global food production. The creation of this book involved, as the Introduction states, "a diverse network of people throughout the world, working hard on these difficult problems and willing to share their information and insights." This network of people with no vested interest in export food production, would be as objective as one could find in their approach to consumer protection. Food First carries extensive discussions on the various cash crop producers of the Philippines such as the United Fruit (now United Brands) of the US, farm productivity and land reform, rice importation, poverty rise, USAID and US military support, and IMF/World Bank loans some of which were utilized as hand-outs and lecture materials in Chapter V of this study.

Mismanagement, farmer ignorance, overgrazing, antiquated farming system, weather/drought, and overpopulation are the issues that also concern S. George (1983). Her book, How the Other Half Dies--The Real Reasons for World Hunger is persuasive. It questions what the world has been told are the causes of global hunger. Publications, researchers and lecturers that perpetuate this myth are predictably funded and sponsored by Western farm product exporters. She forces the reader to discard simplistic notions about the hunger problem and exposes the profit-first orientation that is responsible for the worsening hunger situation and an impending global disaster. She accomplishes these by naming names, identifying forces like agribusiness, USAID, the World Bank and the Rockefeller Foundation. George believes that the crucial choice in the Oppressed Countries lies between self-reliance and dependency. Politics is the key to world hunger, just as social change is the key to eliminating it, she concludes.

Self-reliance is not allowing staple food to come in by foreign ships instead of out of their local soil. Imports deprive the Filipino farmers, comprising two-thirds of the population, of their role to produce food. Any employment (salesman, professor, shoemaker, farmer) that encounters insurmountable competition is abandoned. Insurmountable competition is the impoverished, two meal a day Filipino farmer competing with multi-billion dollar Western flour and

grain merchants in three-piece suits occupying airconditioned, carpeted suites in Manila highrises.

Considering that the total agricultural area [Philippines, pop. 55 M] is enough to feed 80 million people, it is a source of wonder why the country still suffers from inadequate supply of the staple crops. (Agoncillo, 1967)

US staple foods are produced by farmers of the US--wheat, corn, rice (three grasses) and soybeans (a weed) for meat animal feed. The FATUS (USDA, 1984) reports that soybeans and its byproducts--for special feed-bred meat animals--was the largest export earner in 1983, bringing in \$7.9 billion in revenue. Corn--staple food for humans and meat animals in Oppressed Countries (OCs)--moved ahead of wheat to second place with \$6.4 billion worth of exports compared with \$6.2 billion for wheat. The US balance of payment is dependent on these four agriproducts making the US an agricultural country.

We [in the US] need foreign markets to keep our industries operating at full capacity and to keep our work force fully employed. The big potential for incremental growth is overseas; farm exports produce jobs. We have become the world's major exporter of low dollar value products such as grain, while the real money is in the higher value products, such as fresh and frozen meats. (Layhee, 1983)

Layhee's most significant statement was when he said,

...but when it comes to politics, we in the US private industry can't do much about it. That's where our folks in the government come in. There are

indeed obstacles, but with the determination of all of us, and the firm assistance of our Federal government, we can turn these obstacles into real opportunities.

The success of Mr. Layhee's strategy is evident when farmers in neocolonies no longer feeding the population, are forced out of their farms and move to urban shanty-towns with hopes of city employment and economic improvement. Urban shanty dwellers are incredibly hospitable. Mostly ex-farmers themselves, they welcome their co-oppressed; there is always room for another family in any urban shanty.

Life in an Oppressed Country urban shanty-town is difficult to imagine. M. R. Hollnsteiner (1982) creates the picture with her writing: "...a world of misery... most evident to the outsider are the deteriorated houses crowded together, the open sewers, uncollected garbage, poor sanitation, flies, standing water, and poor lighting. Inside the tiny ramshackle dwellings live often six, ten, twelve or more family and kin members. All face the constant threat of eviction if they are squatting on someone else's land. This insecurity of land tenure is compounded by a tense emotional environment at home where joblessness and alcoholism make men angry or hopelessly drunk, and lead to abandoned wives and children... children remain undernourished and underweight, with their growth stunted from insufficient food. Diarrhoea, gastro-enteritis, and respiratory ailments are chronic illnesses to which many succumb during their first

year of life."

Shanty-town dwellers are immigrants to the urban areas. That they are shanty-town dwellers means they were not born and raised in the city. These are mostly farmers, used to working with the soil, now transplanted to the city slums having lost their livelihood as farmers. This researcher's observations of laboratory monkeys show that overcrowding leads to changes in behavior transforming calm and even-tempered animals into aggressive and violent ones. The same changes occur among humans in urban shanty-towns.

This people-created economic disorder was also an issue with Mahatma Gandhi. Sachs (1980) brings to the reader the Mahatma's words:

I must confess that I do not draw a sharp or any distinction between economics and ethics. Economics that hurt the moral well-being of an individual or a nation are immoral and therefore sinful. Thus the economics that permit one country to prey upon another are immoral....

Sachs states in his book that Gandhi's insistence on self-help and self-sufficiency as well as on solidarity and interdependence among equals contains in germ the concept of self-reliance in its modern sense of counting on one's own forces, which does not necessarily lead to autarky but implies the capacity for autonomous decision-making and the selective control over external relations. Gandhi's immediate targets: 1) to promote the dignity of labour by

generalizing staple-crop labor, and 2) to give everyone an opportunity to earn a decent livelihood, mostly through agriculture and craft. Gandhi emphasized the need to employ the idle rural labour force in the production of necessities. He stated:

If I could produce all my country's wants by means of the labour of 30,000 people instead of thirty million, I should not mind it, provided that the thirty million are not rendered idle and unemployed. Heavy industries should remain under state control in order to prevent private monopolies.

"A Public Law program of transferring billions of dollars of our farm surpluses to poor countries.... We have reasons to be worried about the adverse side effects of this program upon farm product prices and agricultural production within the recipient countries. In India it may well be that Indian farmers have been receiving less for the rice and wheat they have been producing than they would have received had there not been large imports of US farm products made available under the PL480 program. But can India afford this kind of underpricing and thus discourage her domestic production of farm products? Once this issue is seen clearly the answer will be no." (Schultz, 1965)

On this issue, there is a united voice from different continents: Mao Tse-Tung taught his people, "Dig tunnels deep, store grain everywhere, never seek hegemony (aid)." "Grain is the currency of currencies," Lenin said. "Whoever

controls the food exports controls the world," said Jacques Chonchol, former minister of agriculture of Chile. Mumar Kaddafi: "No country is free that imports its food."

The Have-nots in the Philippines are in fact not idle. They work in "industry" almost all of their waking hours. But that which they are allowed to produce are for export. Export-oriented Industrialization will employ as many number of able-bodied Filipinos as there are. Webster defines employment "to occupy time advantageously." Employment at EOI factories and cash crop plantations is an immoral use of the word employment. Earning \$1.30, the price of a small chicken, for 10 hours of labor is not employment. This rate is dictated by Western business. This industrialization was what Robert McNamara, World Bank president in the 1970s, promised when he said,

... special efforts must be made in many countries to turn their manufacturing enterprises away from the relatively small markets associated with import substitution toward the much larger opportunities flowing from export promotion (Bello, 1982).

J. Dunmar (1975) "finds it abundantly clear that the path so far followed by the most 'advanced' countries is totally unsuited to the countries of Asia, Africa and South America, where there is abundance of labour and shortage of capital. We have the spectacle of rapidly increasing populations flocking to the towns, where there is even less prospect of employment. Unfortunately, such 'aid' as

advanced capitalist countries have supplied has produced and heightened precisely this result. From motives of profit and prestige, loans have been made on condition that the recipients buy from the lenders highly efficient machines and factories which can do nothing but intensify the prevailing bankruptcy and chaos. Few African countries have been able to resist. The inevitable result of such a policy is to make nine-tenths of the peasants redundant, and in the long run to produce less food from soil eroded by wind and water. Yet of the African countries only Tanzania seems to be adapting a sane and far-sighted policy.... Sensible governments in the less developed countries may well think twice before changing from animal power to tractors... and above all there is no general rule to apply to all circumstances...."

The Center of Research and Communications (1983) in its publication Agribusiness states: "Specifically in rice and corn--although not exclusively to them--farmers are unquestionably motivated by profit expectations. Thus, the best way to ensure self-sufficiency plus a prudent excess is to allow farmers to profit from their farming. Otherwise, they will simply shift to other crops whose market prices are still free, and thereby cause eventual production short falls in relation to national requirement."

International Communications

"When the tinder box they helped create explodes, they will hide behind commissions [such as the Kissinger] that study the future. But until they study the past, they will not understand the present."
(Hellinger, 1983)

Victimized by the international economic disorder, people from Oppressed Countries who are disenfranchised and reduced to mendicancy, are again victimized by the media. This study sees a trend in the Western media against the Oppressed Countries, the Philippines among them. The Western press does not miss too many chances to remind the Have-nots that they are a basket case. The transnational systems "often seek to present [Oppressed Countries] ...in the most unfavorable light, stressing crises, strikes, street demonstrations, putsches, etc., or even holding them up to ridicule." (Masmoudi, 1979) Bombarded with a regular dose of you're-no-good, minorities in the West go into depression, develop an automatic rejection of anything their own, lose strong feelings of nationalism, patriotism and anything indigenous. These are replaced by the secret coveting of Western anything--from McDonald's, to Cabbage Patch doll, padded bras, and Sylvester Stallone. Too many prefer a

cultural amnesia to a cultural alliance. This is unfortunate, because this is exactly what adversaries want to happen. A review of literature show that Western media assist in formulating an attitude that an Oppressed Country--Philippines, Cambodia, Zaire, Nigeria, El Salvador, Guatemala, etc.--is a hodge-podge of unrelated events, uncontrollably cursed by gods and nature; corrupt leaders, lazy and ignorant inhabitants; of fathers who begot no children, and children who have no fathers." (Dunmar, 1975)

North Americans, a very small percentage of whom have traveled outside the USA, get to look at the world through the eyes of the media. "Western media is filtered through a consortium of four major western news agencies--Associated Press, United Press, Reuters, and Agence France-Presse. On the issue of small neocolonies, this consortium almost always transmits single-dimensional, fractured images which are then perceived by citizens of the USA as reflections of the whole." (Richstad, 1984)

This study is looking for reporting with minimum bias, malice and self-serving statements. Social scientists in these neocolonies have very genuine and valid reasons for questioning the existence of the present imbalanced international information order.

Mass media has conditioned us... to a single kind of information flow, which we have come to accept as normal and indeed as the only kind: a vertical, one way flow from the top downward of

nondiversified, anonymous messages, produced by a few and addressed to all. This is not communication. (d'Arcy, 1981)

All are bombarded with "their" news. What is printed of international concern frequently follows the same pattern, the same message, the same beliefs, day after day. In turn, one becomes what one reads. The possibility that certain of what is printed may not be true is hardly considered. There is little fore-knowledge by the average Western reader on the possibility of inaccuracy in their foreign news. Without knowledge of the local culture and language, how are White, foreign reporters able to interpret Browns and Blacks? This study is not referring to a lack of first-hand knowledge or access to only biased knowledge. Western reporters who live within the city of their assignments are exposed to enough resources to extract ample unbiased information. However, will this information sit well with the reporter; with his superiors back home? Is it acceptable to print only the truth, the whole truth and nothing but the truth. What about its sale value? Enough of what is published on Oppressed Countries by Western correspondents are understatements and/or exaggerations. Some are outright myths. This writer has interviewed NY Times readers whose total recollection of Ethiopian starvation causes are "drought, poor farm management and overpopulation." Political economists and social scientists with no vested

interest in financial/ military/ industrial complex and no vested interests in commercial food production, do not accept these as the reason for starvation.

More social researchers ought to study how much of the distortions in the popular press occur due to ignorance in the part of the reporter, cultural indifference and miscommunication, and how much from malice. Skewed global news distribution is nothing new. Jose Rizal, the Philippine national hero, in Madrid in the 1880s kept abreast of national policies by means of a careful daily reading of the newspapers, so that when on occasional mention was made of that country far away in the Orient called the Philippines, and about which hardly anybody knew the circumstances, he wrote to the editor rectifying the errors. (Fernandez, 1981)

Distortions in the press releases make average Westerners very definite about the indolence of the Asian farmer, the unbiased Western press, the democratic US foreign policy, the barbarity of the communists, the impotence of intelligence gathering. Most see no need for firsthand evidence.

This must be the international communications disorder which the International Committee for the Study of Communication Problems, established by UNESCO Director-General Amadou-Mahtar M'Bow, began to look into in December, 1977 ending up with a 312-page report, Many Voices,

One World (1980). Presided over by its president, Sean MacBride of Ireland, the author/members represented the following countries: Canada, India, Chile, Netherlands, Egypt, Yugoslavia, Nigeria, Japan, Tunisia, Indonesia, USSR, Colombia, Zaire, USA and France. Such varied backgrounds of competent, prominent figures meeting in countries as diverse as Sweden, Yugoslavia, India and Mexico, provided invaluable insights into disparate cultural and social issues in divergent societies affecting news gathering and distribution, as well as technical and economic aspects of media operations. These members were asked to undertake a comprehensive study of the totality of the problems of communication in the modern world. The call was made for a new world information and communication order.

The transnationals of Powerful Countries make up a very small, elite group. Such concentration of wealth and technology affect the freedom and democratization of communication and advertising, mainly in the last three decades. This small elite group overseeing the massive dissemination of advertising, points to the popularization of certain products of which until then had been largely the province of the wealthy. From 1960-1971, the number of US advertising agencies with overseas operations increased from 59 to 260. Per capita advertising expenditure (1974) puts the US far ahead of other industrialized market economy of \$126.32 compared to Japan, \$37.95. (International Committee

for the Study of Communications Problems, 1980, page 109).

Crisis in International News (Columbia U. Press, NY, 1981) is a collection of 23 articles by journalists brought together by the Jefferson Fellowship Program of the East-West Communication Institute in Honolulu. One is made aware of the skewed global news distribution and made to understand how average Westerners perceive the Oppressed Countries as they do.

"Indonesian Attorney General Ali Said... told local editors to stop printing Western news reports on the country. 'Let them go to hell,' he said. The Indonesian press director, Soekarno, was more specific in a recent interview with the Washington Post...: 'These critical reports you've all been making lately hamper our speed of development. They draw the attention of the people away from development to other issues which creates frustration...if they [Western reporters] employ the Western tradition of hitting issues face-on, they will not achieve their mission of creating better government. They must follow the slower, more indirect Indonesian way, or else our government will ban foreign journalists and will ignore their reports.'

"A popular melody has joined the reggae rhythms in Jamaican nightclubs; it is a song called, 'The Foreign Press.' In rich island dialect, the song accuses correspondents of besmirching Jamaica's good name with false reports throughout the world. It says that, between

dispatches, reporters manage to frolic on the beach and in the nightspots, adding: 'Why don't they write about that in the foreign press?' It is no lighthearted calypso spoof. The wife of a prominent Jamaican cabinet minister told an American correspondent, with no trace of mirth: 'You [reporters] don't know how you make us suffer with all your lies about communism and violence... and if you keep it up, the day will come that you will not be able to come here anymore or you'll have your throat cut.' Already Jamaica, like scores of developing countries, is loath to grant entry to foreign correspondents.... (Rosenblum, 1981)

Indira Gandhi said, "It is astonishing that we know so little about leading poets, novelists, historians and editors of various Asian, African, and Latin American countries while we are familiar with minor authors and columnists of Europe and America." (Communicator, April-July, 11(2-3) 1976) She spoke for many developing nations' leaders when she stressed the importance of information self-reliance.

Historians also can lack sensitivity, and be guilty of sensationalizing. Asia and the Philippines, by Fr. Horacio de la Costa, SJ (1967) educates Philippine youth: "What was the 13th century to Europe? It was the century of the High Middle Age; the century of Thomas Aquinas and the final welding of Greek philosophy and Christian belief; the century of Chartres cathedral and the flowering of Gothic art; the

century of Dante and the rise of vernacular literature; the century of Louis of France and the emergence of national monarchies. A century of fulfillment and of promise." De la Costa then proceeds to compare 13th century Europe with 13th century Asia: "And in Asia? In Asia, the 13th century was a century of turbulence, crisis and change; the century of the Mongols; the century of Jinghiz Khan and Kublai Khan. Mongol armies rapidly conquered.... Was wrecked by a storm... simultaneous attacks... against Vietnam and Burma.... Pagan dynasty was overthrown.... The turbulence... displaced the Thais ...sent them to overwhelm Angkor... The Shans, another displaced people, overran Upper Burma.... Expulsion by the reigning king brought a punitive expedition.... Flung them back to their ships...."

Is this what young Oppressed Country people are being told of their heritage? No wonder too many lack self-respect, have an increasing disdain for history, ancestors, and race. Story tellers are capable of destroying their listeners. Fortunately, there should be enough students who have learned the not-too-civilized goings-on in Europe reading the Borgias, Henry VIII and Peter the Great, and will take the author not too seriously.

More on Western historians: "The Myth of the Spreading Desert" is a match to any myth.

USAID (aid for international development) included in

an August 1972 report "that based on travelers' impressions, the Sahara is spreading." When the Washington DC World Watch Institute director Lester Brown passed this "travelers' impressions" on to the World Population Conference at Bucharest, Romania in 1973, this was how he put it: "An 'in-house' study undertaken by the United States Agency for International Development in August, 1972, indicated that the desert is moving southward at up to 30 miles per year...." By 1975, the "travelers' impressions" had a more expanded version which appeared in United Nations Document ST/SSO/33, March 26, 1975 by Helen Ware:

... the Sahara desert has begun to move southward at an accelerated rate all along the 3,500 miles southern fringe, stretching from Senegal to northern Ethiopia. An in-house study undertaken by the United States Agency for International Development in August, 1972, indicated that the desert is moving southward at up to 30 miles per year, depending on where it is measured.

One year later, a Dr. Eric Eckholm, again of the same Worldwatch Institute in Washington, spoke at a meeting of the American Association for the Advancement of Science in Boston in 1976. Dr. Eckholm referred to a "U.N. study in which it is claimed that... in Africa as much as 250,000 square miles of desert may have been added to the south side of the Sahara alone...." (Frank and Chasin, 1980)

Has USAID ever released a disclaimer to this spreading myth about the spreading desert? Not likely, since a

"spreading desert" is useful in diverting peoples' attention from the real causes of hunger such as the disruption of internal supply and demand of indigenous foods, the underpricing of local grain by imported grain. The more it is stressed that the people are starving because they are too ignorant and lazy to produce indigenous foods, the more the importation of grain and other farm products like dairy can be justified. Western media does not speak of the disruption the surplus food in the Powerful Countries is affecting the internal supply and demand of food of the Oppressed Countries. The US press seldom plays up what happens to Oppressed Country farmers when the staple foods are grown in the West. The Massachusetts Daily Hampshire Gazette, July 18, 1985, published a letter from T. Nielson, here excerpted:

In 1983-84, I worked as a field program assistant with the United Nations High Commission for Refugees (UNHCR) in Northwest Somalia on the Ethiopian border. There was no drought. Neither was there local grain production because there was so much food aid in the market that it acted as a deterrent to local agricultural production. Local farmers cannot grow and market their millet, sorghum, and maize when free food aid is competing against them. This, however is in the US interest because the long term goal of food aid is to create markets for US agricultural products. It is important to note that during my time in Somalia, not one Ethiopian told me that she/he was there because of famine. Their reasons were political/tribal persecution....

One US job in six depends on exports to the South (Jha, 1983). The issue of creating markets for US

agricultural products is repeated by US Senator Jack Danforth, from his press release of February 17, 1984: "...transfers of food from our enormous surpluses have a positive effect on the entire US economy....

Under Food for Peace, the government buys farm commodities on the open market and exports the foodstuffs to hungry nations. Food For Peace purchases increase the income of American farmers. They raise commodity prices by providing more demand. Simultaneously, FFP reduces the huge commodity inventories that act as a damper on prices received by farmers. The program increases US exports and reduces our trade deficit. By creating jobs and income, it increases tax revenues to the Treasury and reduces spending for social services and deficiency payments to farmers. This is not speculation. A recent Congressional Research Service study confirmed all of these positive results that would flow from increasing the Food for Peace Program. The study found that each extra dollar for Food for Peace would mean an increase of \$2.50 in net farm income and \$2 in American exports. The stimulus to the farm economy more than pays for itself with more jobs, reduced outlays, and increased tax revenues. For Missouri farmers and the US economy, Food For Peace is a good deal." (US Sen. Jack Danforth, Official Press Release, Feb. 17, 1984)

And again by US Senator Rudy Boschwitz on the US senate floor:

... the US has been the world's largest exporter of agricultural products.... The value of these exports increased from approximately \$7 billion in 1970 to around \$44 billion in the fiscal year 1981. These exports have created more than 800,000 domestic jobs in related industries, and have taken production of 2 out of every 5 acres of US cropland. In addition, these exports generate about one-fourth of all farm cash receipts and contributed nearly \$30 billion to our balance of trade at their height in 1981.... (Congressional Record, February 1984)

Mr. Boschwitz continues by explaining the (1983) agricultural dilemma, the decline of surplus food sales by 21 percent from the 1981 level, and the causes (world-wide recession and increased debt burdens by the countries buying the US surplus food.) He announced: "In response to this trade dilemma, I am introducing the Food Aid and Export Market Promotion Act, along with Senators Boren, Jepsen, and Pryor. The purpose of this legislation is twofold: First, to expand agricultural exports through existing credit and food aid programs, and second, provide the Secretary of Agriculture with additional export credit tools aimed at developing markets for US agricultural exports in countries with economies that are strong enough so that they can start phasing out of Public Law 480, yet not strong enough to move completely to GSM-102.... The bill would direct the Secretary to get at least \$25 million in FY84 and \$50 million in FY85 for the intermediate credit programs (GSM-201 and GSM-301)."

Still on the issue of the popular press--"Anonymous

messages produced by one and addressed to all." Steve Lohr, New York Times reporter, is assigned to cover the Philippines. "In the year since the opposition leader Benigno Aquino Jr. was shot to death at the Manila Airport last Aug. 21 [1983], the political and economic situation in the Philippines has deteriorated." Most oppressed Filipinos see it differently.

Contrary to some quarters' claims that the present economic crisis only started to manifest itself in 1982, when the government's target of GNP [gross national product] growth of 6% for that year was dismally not met with only actual growth rate for that year registering 2.3%, it is to be pointed out that the management of the economy was in disarray even way back in 1975. (Villegas, 1984)

Balance of payment was half a billion, and the "Wanna loan?" bankers, through the IMF, offered \$258 million from their credit line of last resort, the highest interest rate. (Other data in Appendix B.) In fact, labor unrest and mass strikes have been occurring years before Aquino's murder. The strikes and unrest no doubt alarmed the IMF-led western banks who feared that President Marcos was relaxing and loosening his grip on the country. The PC banks syndicate would have seen that it was time to put on pressure concerning loans and deficit, and to scare dictator and slaves back to their assigned roles. Kluge (1984) wrote in an article on the Philippines: In September 1972, before completing his maximum of two four-year terms of office, President Marcos

declared martial law. Of this period, Kluge continues:

I asked Jose Diokno, the anti-Marcos lawyer, what those signs mean, the ones that call for dismantling of 'US-Marcos dictatorship.' Let's put it this way, was Diokno's reply, it's shorthand for the fact that the Marcos government--authoritarian but not quite totalitarian--has held on to power because it has been and continues to be supported by the US government. Marcos met with the US ambassador the night before he declared martial law. The US Chamber of Commerce was the first group to approve. In 1973, a US Senate committee came out and said that since democracy in the Philippines wasn't effective anyway, we might as well cast off the trappings and have a government we can deal with. And then there was the crazy statement of Vice President Bush's, that toast to Marcos, praising his adherence to democratic methods. That's what we mean by a US-Marcos dictatorship.

Benigno Aquino's intense nationalism worked against him. On the issue of nationalism, he pontificated. His father and grandfather before him were labelled anti-US because they too were nationalists. Old Aquino had served his time in US-run prisons during the tumultuous commencement of US colonization. This writer's grandfather, Lope K. Santos (a governor, senator and among the first labor union organizer in the Philippines) also had his share of court appearances and detentions during the same period.

A few weeks before Benigno Aquino's assassination, this writer was talking with him at relatives' home in New York City. He expressed his worry over the cheap labor in the Philippines, the draining of natural resources, and the need to reverse this trend. He was pleased that the Filipinos are

becoming aware of their oppression. "This is a good time to be back in the Philippines...." were the last words this writer heard him say at this social. He did not elaborate on why he thought it was a good time to go back.

Western Financial Institutions

"Money not lent
means profit forgone."

M. Pastor, Jr. (1984) cites F. L. Block in The Origin of International Economic Disorder, 1977, who sees "the creation of the IMF [International Monetary Fund] as part of a general project with two aspects or goals: The establishment of US-dominated multilateralism and the elimination of the threat of 'national capitalism' in Europe. The first aspect has been much discussed: expecting a post-war export surplus, the US sought to create markets abroad by advocating a relatively open and multilateral system of international trade and payments. The IMF's role in this involved using its new powers to break down the currency blocks that had developed during the depression and the war and to establish full convertibility."

The second goal: "Frustration of national capitalism." National capitalism is the national program to produce indigenous goods and foods locally even if certain of these items can be purchased cheaper from other countries. The resulting job openings and self-sufficiency would justify restricting imports. This is bilateral trade relations. However, the well-placed classes want "high degrees of openness so that capitalists from the strongest economy will

be able to take advantage of opportunities for profit in other countries.... This openness... provides a means to combat the demands of the working class for higher wages and for economic and social reforms." (Pastor, Jr., 1984)

IMF was set up in 1944, at the same time the World Bank was set up. It was the US Secretary of the Treasury who chose to hold this conference at a resort, and the choice was the 485-room Mt. Washington resort hotel in Bretton Woods, New Hampshire (IMF Survey, July 2, 1984).

The organizers expressed no uncertainty about the purpose of this conference. The IMF shall be for mutual stabilization; the World Bank, for building the economic growth of the less developed countries. Other results of this meeting were the planning for the United Nations and the formation of the Food Agricultural Organization (FAO).

The article continues: "Two other ingredients were also conducive to making Bretton Woods successful. First, there was a large area of agreement as to objectives; second, the representatives of the United States and the United Kingdom dominated the negotiations. The US, as the largest world economy, played the leading role. Furthermore, there was a small team of negotiators; and two strong technicians, Harry White, US Treasury deputy, and John Maynard Keynes, were in a position to make compromises and concessions." The less developed nations' representatives were not decision makers during this formative stage, and they still were not even

much later on.

Before 1972, less developed nations had virtually no role and no voting power in the monetary system...at least they now have a forum to express their views and air their grievances. At its formative stage, IMF was run by the so-called Committee of Ten, which consisted of ten rich nations whose decisions rarely took into account the plight of the vast majority of the world's people (Todaro, 1981).

Article I of the IMF Constitution reads:

- i. To promote international monetary cooperation through a permanent institution which provides the machinery for consultation and collaboration on international monetary problems
- ii. To facilitate the expansion and balanced growth of international trade, and to contribute thereby to the promotion and maintenance of high levels of employment and real income and to the development of the productive resources of all members as primary objectives of economic policy.
- iii. To promote exchange stability, to maintain orderly exchange arrangement among members, and to avoid competitive exchange depreciation.
- iv. To assist in the establishment of a multilateral system of payments in respect of current transactions between members and in the elimination of foreign exchange restrictions which hamper the growth of world trade.
- v. To give confidence to members by making the general

resources of the Fund temporarily available to them under adequate safeguards, thus providing them with opportunity to correct maladjustments in their balance of payments without resorting to measures destructive of national or international prosperity.

vi. In accordance with the above, to shorten the duration and lessen the degree of disequilibrium in the international balances of payments of members.

The Fund shall be guided in all its policies and decisions by the purposes set forth in this Article (IMF Survey, July 2, 1984).

On paper, these purposes of the IMF sound very equitable. In reality, there is inconsistency between written policies and what is practiced (Diokno, 1983; Bello et al., 1982; Girvan, 1984; Killick, 1984; Williamson, 1983).

There is also inconsistency between what the IMF says is good, and what the analysts with no vested interest are saying is good for the Philippine oppressed. Western media does its share in broadcasting what it interprets as the IMF's neutral role in the Philippines.

These policies, these lending terms have given the IMF its reputation in the Oppressed Countries, the Philippines included. Sensitivity to a situation is not the concern of the IMF:

...It imposes onerous conditions, that it is ideologically biased in favor of free markets and against socialism, and that it overrides national sovereignty and perpetuates dependency.
(Williamson, 1983)

Details of the IMF activities in the Philippines are on the most part are unwise to take as facts. Between the processes by which the IMF operates, the questionable interpretation of events in the Philippines, and the coverage in the US media, what seems acceptable are incongruous fragments. Many international agencies and institutions are zealously overseeing and concealing the economic development of the Philippines, but none is more zealous, more powerful, and more invisible than the IMF. What is very visible and available is IMF's well-worn claim and efforts to preserve its image as an equitable and benevolent institution. These materials can be had from the public relations offices of these institutions for the price of postage stamp.

Diokno (1983) states the IMF effects on the Filipino people: "Most Filipinos probably do not know--much less have heard of--the IMF philosophy of development. Many of them would undoubtedly find themselves lost in the seemingly neutral world of the IMF, where price is dictated solely by the 'free' market of supply and demand; where competition among equals is the rule, and not the exception; and where income inequality, inflation, poverty and unemployment are regarded as merely the result of 'market distortion.'"

Unfortunately, for an Oppressed Country like the Philippines, being an IMF guinea pig is no laughing matter. The IMF model of development, consisting of the two major strategies of export-orientation and import liberalization, has completely ignored the needs of the Filipino people. Instead it has emphasized the foreign market, and has tied the Philippine economy even closer to the global economy--not as an equal, but as a subservient appendage. The effects of these policies on the Filipino people are deep and extremely serious....

"Since 1955, the Philippines has been a recipient of the IMF loans. Between 1955 and 1982, its balance of trade has resulted in a surplus in only two years (1973 and 1963). Over the recent years, balance of payment (BOP) deficits have worsened rather than improved, despite--and, more appropriately, because--of IMF prescriptions for development. The IMF model has not worked, and will not work for the development of the Philippines. Worse, it will only increase and aggravate the hardships of an already impoverished people. Even as this paper is being written, the Philippines is going through talks with the IMF for another standby loan. The third installment (SDR 215 million [SDR is the IMF unit of currency]) of the 1983 standby loan has not been released by the IMF, which is requiring stricter and stiffer conditions from the Philippine government--no doubt at the expense of the Filipino people." (Diokno, 1983)

Most critics of the IMF/WB and its Western commercial banks' activities ignore one aspect of the economic quagmire of neocolonies--the cooperation of a few among the leaders in the Oppressed Countries. This research refers to this group as the "Elite" and lumps the Elite with the Core. Some among the former can only be subjected to so much pressure and temptation, for everyone has a price.

"The US Foreign Corrupt Practices Act, has been the subject of an extensive debate among US business executives, accountants, government enforcement agencies, federal legislators and policy makers in the White House since enactment in December 1977. Corporate executives charge that this ruling has caused US companies to lose millions of dollars in export sales.... The Act is undergoing serious examination. The Reagan administration has launched a major effort to amend the law." (Aggarwal, 1982)

The former Chairman of the Philippine National Economic Council says this of the problem: "The US thus pursues a two-faced policy toward Big Business--big business must behave at home but it can do its worst abroad. Multinational corporations are encouraged to engage in monopolistic practices abroad which, if perpetuated within the US itself, would expose them to relentless prosecution. The US has unleashed on the rest of the world, especially on poor underdeveloped countries, a new world force--corporate monsters with financial resources larger than those of most

countries they operate in, unhampered by national loyalties or social needs or environmental concern. Their prime motivation as ever is to make a profit.... Secretary of State William Rogers told a closed meeting of executives from ITT, Ford, Anaconda, the First National City Bank, and Bank of America, among other things, that 'the Nixon Administration is a business Administration. Its mission is to protect American business.' All American diplomats abroad received the following directive: 'Henceforth all officers will be evaluated on the basis of their concern for US business.'

(Henares, Jr., 1985) Mr. Henares gives the impression that illegal form is the most serious form of collaboration. Does this make the legal form of collaboration less serious?

The consequence: The Philippines owes the "Wanna Loan" bankers \$32 billion, give or take a few billions. At the same time, UNICEF Annual Report on the Philippines (1984), states that:

Already there is evidence that the [Filipino] people are consuming less food than they did in past years and more children are exposed to nutritional risks and its resulting impact on health and development...

DEBT SLAVERY

C. Payer (1976) writes about poverty and indebtedness to explain IMF Conditionality: "The system can be compared point by point with peonage, or debt slavery system: the

worker is unable to use his nominal freedom to leave the service of his employer because his employer supplies him with credit for overpriced goods in the company store, necessary to supplement his meager wages. The aim of the employer is neither to collect the debt once and for all, nor to starve the employee to death, but rather to keep the laborer permanently indentured through his debt to the employer. The worker cannot run away, for other employers and the state recognize the legality of his debt; nor has he any hope of earning his freedom with his low wages, which do not keep pace with what he consumes, let alone the true value of what he produces for his master.

"Precisely the same system operates on the international level. Nominally independent countries find that their debts and their constant inability to finance current needs out of exports, keep them tied by a tight leash to their creditors. The IMF orders them in effect to continue laboring in the plantation, while it refuses to finance their efforts to set up in business for themselves. It is debt slavery on an international scale. If they remain in the system, the debtor countries are doomed to perpetual underdevelopment, or rather to the development of their exports at the service of multinational enterprises, at the expense of development for the needs of their own citizens."

A member-country may have access to International

Monetary Fund resources only on condition that it is willing to implement a program acceptable to the IMF. This requirement is the "Conditionality." (Williamson, 1983) The IMF defends its freedom to write conditionality law changeable and subject to whim for any specific country.

The easy to understand, out-front Articles of IMF give the layman the impression that the IMF is a credit union, from which the members, on the eventuality of crisis, can draw. William Dale (1983) writes that

...this bias is evident in its failure to deal with the fundamental problems, and instead recommending levels of indebtedness that in the course of time would be unsupportable. The Fund is...well placed to encourage members to make these changes and to help design programs serving that end.

Having used the word "unsupportable," Mr. Dale obviously has been reading the feigned dilemma of the Western bank syndicate's dilemma on whether or not the Oppressed Countries can pay the banks back. Brilliant minds like Henry Kissinger's and splendid computers have figured out that the Oppressed Countries' indebtedness is nothing compared to the natural and human resources in those countries.

Development Debacle: The World Bank in the Philippines (Bello et al., 1982) is a coherently and well documented account of the World Bank activities in that country. What it charts is the history of the \$3 billion involvement of the World Bank over the last decade in a disastrous top-down

development program that has left the Philippine masses still further impoverished. It outlines the Martial law-dictated special economic relationship between the Philippines and the US resulting in Philippine dependency. This book was made possible by the cooperation of people within the World Bank. At the risk of their personal security and safety, these people courageously searched for, photocopied and leaked thousands of pages of World Bank documents. It is a detailed indictment of the way in which the World Bank effectively operated as a creature of its major subscriber, the US.

C. Payer (1976) examines the reasons for the loans and the effects of the IMF/WB loans since the 1950s; where the loans came from; where the money went; why the situation of near-default is beneficial to a certain interest group, and why this same interest group resists any possible solution to the situation. Payer discusses the process by which the banks position themselves between their motto, "money not lent means profit foregone" and its accompanying pitfall, "the closer the defaulted countries [or its leaders] are to the edge of the precipice the nearer the banks are to the same edge." Also explained are the frequently misunderstood terminologies such as Eurodollar, one important source of the loans. Payer's conclusion is that the present debt rescheduling system will provide no relief to the Oppressed Countries' economies.

The same conclusion was reached by N. Girvan, in his study, "Swallowing the IMF Medicine in the 'Seventies" (1984) which has for its setting 1973-76, the point of drastic deterioration in the economy of Jamaica and other non-oil exporting countries. Jamaica was studied as the classic case of dependent economic growth closely tied up with the expansion of the international economy, primarily with the US. The Jamaican economy was endowed by the West with a \$1 billion investment to mine raw aluminum for export. The decade following this investment, the unemployment rate rose from 12 to 24 percent and the relative and absolute income of the poorest 30 percent fell. The author attributes this on stagnation of the agricultural sector and capital intensive industry. The reader is led through a series of causes and effects in Jamaica's internal affairs involving US banks, usurious IMF conditionalities, and the disequilibrium IMF created as it implemented 'stabilization' programs which appear to have helped only the US financial/industrial complex.

Girvan asserts that IMF activities in Jamaica proved the IMF to be neither technical in nature nor ideologically and politically neutral. This researcher sees a parallel in the situation in Jamaica and the Philippines but questions Girvan's analogy between IMF's presence and 'swallowing medicine'. One swallows medicine with an expectation of at best, relief, and at worst, an absence of improvement. Of

late, the presence of the "Wanna loan" bankers in Oppressed Countries is a harbinger of doom.

That the Philippines is today beholden to US financial institutions is the penultimate step toward what may well be the fulfillment of a plan to commit all its riches to the usurers, all "483 commercial banks with outstanding loans to the Philippines." (New York Times, October 21, 1984) The banks would like the indebted countries to believe that they are worried about not being paid. The virtue of benevolence is magnified and enhanced by the element of trust.... The New York Times reported that lenders in the past frequently placed millions of dollars in loans without having the most basic first-hand information about a situation, while an article in the IMF Staff Papers reports that loan decisions were often made on an ad hoc basis or on the strength of personal contact (Payer, 1976). How so? Banking is an efficient business. All banks, without exception, when giving loans--whether \$100 or \$1 billion--have already investigated the client's assets and potential.

The Philippines was never poor. It is not poor. Its people are poor because wages are low--low wage is one of the conditions imposed on President Marcos by Export-oriented Industrialization. Foreign powers (mostly US) run the businesses; they determine the wages. The two-meal a day Filipino, up to his armpits in grease all day, makes for the

Western oil companies millions of dollars in profit a year. The profit of the country is carried away to the other side of the ocean. Philippine Governor Vargas (circa 1781) records:

Prudent management is all that is required to make it [the Philippines] yield its hidden treasures... clove, cinnamon, pepper, nutmeg... food crops such as rice, wheat [Wheat did grow in the Philippines!], maize, beans... much wood for building and other purposes... cocoa, sugar, tobacco, tea, coffee... fish of diverse exquisite varieties... buffalo, cattle, sheep, goats, horses... gold, copper and iron... medicinal plants, resins and gums... and other products which have so far escaped notice because natural science has not yet been adequate to assess all the riches and excellencies of the Philippine. (de la Costa, 1967)

Other apparently inexhaustible resources of the Philippines to name a few, are manganese, aluminum, iron cromite, mercury, cobalt, limestone, molybdenum, zinc, sulfur-as-pyrites, oil; it is a greenhouse for more than 270 species of vegetables, species of fruits more than the number of those in the US, and more than 900 species of medicinal plants; a coastline longer than that of the US, rich in edible marine life, and a topography of fertile hydrous oxide and latosol clays superior for cultivation of most staple grains and seeds in the world. "There shall be grains in the fields and fish in the waters year round; let there be no disruption of the internal supply and demand of food," the Philippine gods promised.

But there is disruption. FATUS (USDA 1984) reports

that soybeans and its byproducts to feed meat animals, was the largest export earner in 1983, bringing in \$7.9 billion in revenue. Not only are the Filipinos importing people food, they are also importing animal food. Corn, indigenous staple food for humans and again, meat animals in the exploited countries, moved ahead of wheat to second place with \$6.4 billion of exports compared with \$6.2 billion for wheat.

"'A pack of wolves has jumped on the carcass of the Philippine economy,' says Diosdado Macapagal, Philippine president from 1962-65, of the role played of late by IMF/World Bank and their syndicate of corporate allies." (Broad, 1984). Mr. Macapagal may not have meant carcass. He may have meant a juicy and robust game. The neocolonizers arrived; and then the economic rigor mortis occurred. Then IMF credits are offered when the situation is at the onset of economic crisis--reached when reserves are low, foreign debts high, inflation high and domestic production in chaos. The IMF, after watching these developments come about, jumps in with its Standby Negotiations aware that the borrower is desperate, agreeing to terms it would rather avoid; aware that the IMF is there to impose all the harsh conditions it can get away with.

People who are accessory to the continuing recessionary and protectionist tendencies in major trading partners,

excessive importation of staple grains and animal products, and depressed commodity prices are the same people who flaunt the high level of employment with export oriented industrialization (OEI). One needs to look at this strategy. Yes, many are employed at the export (EOI) zones at \$1.30 a day, the price of a small chicken. In the export zones wages are much lower than those in companies outside these zones:

"These zone workers, mostly women from peasant families, typically lived six to a 6x6 foot room (they have to alternate sleeping times.) When disease breaks out, the women tried to hide it, since illness meant suspension without pay. When strikes broke out, the armed forces were called in. Inside the zones the scene was something out of Dickens. At several plants in the Bataan zone, an employee going to the toilet had to hang a ring with a large piece of cardboard around her neck so that trips to the toilet would be discouraged. At one foreign textile plant, the normal work hours in peak months were from seven in the morning to ten at night; at another factory there were frequently twenty four hour shift. At a Philippine- Chinese-British company, thirty-hour stay-ins were imposed, with doors and windows locked to keep the employees from leaving. At a German shoe factory, the German production manager always wore a .45 automatic pistol on his hip when he went out on the factory floor." (Poole and Vanzi, 1984)

Western executives run the Export-oriented

Industrialization of the Philippines, the US-backed industrialization endorsed by Robert McNamara, World Bank past president. If EOI were non-exploitative, how come the executives have to carry pistols in the worksite? Pistols presumably add to the ease with which neocolonizers succeed in dismembering advanced and productive societies such as the Philippines.

The last two chapters' review of literature has illustrated the system of dismembering a functioning society. While an armed uprising is a commonly proposed desperate solution by the victims as might the employees of the above German shoe factory, a preferred remedy is education. Education begins with empowerment. Empowerment is realizing that "someone out there benefits from my oppression and will continue to benefit from my oppression until I no longer allow myself to be oppressed." Educators and social studies developers are increasingly addressing the issue of oppression as is evident in the next chapter, the review of educational literature (Chapter III). In this review, educators are expressing their awareness of the political economic disorder in their writings.

C H A P T E R I I I

REVIEW OF EDUCATIONAL LITERATURE

There is a vast source of literature on both curriculum development and political economy, but not enough on liberating educational literature with a sociopolitical message. This review sought out those authors whose concern for the present global disorder is reflected in their writings. Much has been written on the subject of economic deprivation among two-thirds of the human population but a solution and the role of the educators in alleviating this situation is not defined. In the Philippines specifically, educational materials on empowerment and the subject of oppression are not readily available. Not only is current printed information originating from unofficial sources scarce; there is reason to doubt the veracity of whatever is filtered through the Western financial/ military/ industrial complex representing vested interests in the Philippines. A bibliography of 79 materials was selected on the basis of how these materials influenced the educational, social and economic theories of this dissertation.

This analytical educational research of this dissertation confronts the political and economic situation in Oppressed Countries in general and in the Philippines

specifically. This educational program, in the form of a Teacher Training Workshop, demonstrates the role that curriculum can contribute to the empowerment of the oppressed.

This researcher's goal is to analyze what has been written both in support of this research and also to understand the position of the authors who contradict this same theory. Educators promptly reveal their biases in their writings, and these biases are sought after by researchers who follow similar persuasions. One researcher who follows the same persuasion is Henry Giroux who proposes that social studies developers need to focus on the relationship between schooling and the idea of justice. Another social studies developer, M. W. Apple (1983) endorses the empowerment principles. The creation of this Teacher Training Workshop which is intended to benefit elementary school youth, have been based on these principles. Paulo Freire (1973) has pointed out that schools do not exist in precious isolation from the rest of society. This research finds the economic conditions oppressive, and this oppression should be a concern in the classroom, and should be resolved in the classroom. Henry Giroux (1981) sees technical, ahistorical view of schooling by social studies developers needing to shift to sociopolitical perspective which focuses on the relationship between schooling and the idea of justice.

One author who endorses the empowerment principles in this dissertation's Teacher Training Workshop is M. W. Apple (1983). He considers it crucial to debate now what educators should and can do about (and in) a society marked by large and growing disparities in wealth and power, the questions of what should be taught, how it should be organized, and who should make the decisions. Dr. Apple in his paper, Curriculum in the Year 2000: Tensions and Possibilities, recommends that curricular content give people the ability to interpret social change and to reflect critically on their daily lives. Specifically, in looking ahead to the next century, he recommends redistribution of income. His is a tall order, and not a formula for an easy curriculum, the author admits.

Dr. Apple is concerned with the results of the decisions we make today about curriculum policies and classroom practices since these results will be with us in the year 2000. The next two decades will be a time of increasing conflict in global economics and politics and this conflict will loom in the curriculum, predicts the author.

Solutions to many of the problems that are now taking shape will require coordinated efforts. Educators and the larger society will always need to work together. The answers to many of the questions brought up will be resolved with cooperation between curriculum writers, the school and

the students. Dr. Apple asks the question: Do students feel that school has something to offer now... in the future? A follow-up question to this should be, do all students have identical expectations, preferences, biases, goals or inclinations? For instance, a teacher who is a racist has much appeal to students of similar inclination. What about the other half of the class made up of offended minorities? Some students attend school because their parents threaten to disown and disinherit them if they don't. Other students so desire education that they defy their parents' plea to leave school and start earning money. Would these two types of students have the same idea of 'what school has to offer?' Would a social consciousness Workshop such as Chapter V of this dissertation fulfill one Attendee and leave the next empty? How does curriculum development handle the chasm; the larger social issues that Dr. Apple is talking about? Which brings us back to his original question--how to implement redistribution of wealth via curriculum development.

Dr. Apple, writes Henry Giroux (Curriculum and Instruction, 1981), and critics such as he have gone far beyond stressing the need for a model of curriculum that generates interpretive understanding and purposive learning; calling for a view of curriculum as a study in ideology. From Giroux are questions viewing curriculum from this perspective such as who has access to "legitimate" forms of

knowledge and whose interest does this knowledge serve. Also, how are social and political contradictions and tensions mediated through acceptable forms of classroom knowledge and social relationships? Explanations of social meanings must clearly relate to wider societal parameters judge their claims to the truth. This wider societal parameters is precisely the target of Chapter V, the Teacher Training Workshop of this dissertation toward the elimination of poverty through empowerment.

This wider societal parameters is precisely the target of Chapter V, the Teacher Training Workshop of this dissertation toward the elimination of poverty through empowerment. Pedagogy of the Oppressed (Freire, 1968) guides this Workshop to the direct link between poverty and empowerment. Referred to by his followers as the patron saint of teachers for empowerment, Freire's writings are as exhilarating as they are exhausting. Followers of Freire's works use words like 'overwhelming' and 'complex' in describing his teachings. Many have to depend on the analyses of Freire by less profound authors to appreciate the political and social doctrines in his writings.

Freire has created much redefining and rethinking on the issue of curriculum theory and practice in relations to sociology and economy. This redefining and rethinking has in turn encouraged the developer of the Workshop in this

dissertation. Freire teaches that without a slave, there is no master. The Workshop in this curriculum will point out to those whom Freire refers to as "slaves" the applicability of the term on them. This same theme will be recognized throughout the Teacher Training Program in Chapter V in the program's concern for exploited farmers. Freire writes: The oppressors, who exploit, rape and dehumanize by virtue of their power, cannot find in this power the strength to liberate either the oppressed or themselves. The oppressed must wage the struggle from which 'the man in the process of liberation' will emerge able to free the oppressor. The great humanistic and historical task of the oppressed are to liberate themselves and their oppressor as well. Only power that springs from the weakness of the oppressed will be sufficiently strong to free both. Who can better understand the necessity of liberation?

Oppressors enjoy their long list of privileges. If they had the use of a private jet, they will no longer be able to do without a private jet. Conditioned by the experience of oppressing others, any situation other than their former situation seems to them like oppression; in their eyes, reduced to that of the people they have tyrannized. Formerly they could eat, dress, wear shoes, be educated, travel, and hear Beethoven while millions did not eat, had no clothes or shoes, neither studied nor traveled, much less listen to Beethoven. Any restriction in this way

of life, in the name of the rights of the community appear to the former oppressors as a profound violation of their individual rights.

It is only the oppressed, who by freeing themselves, can free their oppressor, writes Freire. Hand-outs and lectures in this dissertation's Teacher Training Workshop present the anatomy of oppression and a composite of an oppressor. The oppressor and the oppressive class can free neither others or themselves. It is therefore essential that the oppressed wage the struggle to resolve the contradiction in which they are caught, and the contradiction will be resolved by the appearance of the new man: neither oppressor nor oppressed, but man in the process of liberation. The oppressed must wage the struggle to resolve the contradiction in which they are caught.

Violence (bribery, physical harm, dehumanization) is initiated by those who oppress, who exploit, who fail to recognize others as persons--not by those who are oppressed, exploited and unrecognized. It is not the unloved, Freire writes, who initiate disaffection, but those who cannot love because they love only themselves. It is not the helpless, subject to terror who initiate terror, but the violent.

Freire sees that as the oppressed struggles to lift himself up, he begins to relate more to the oppressor. As the oppressed lift themselves up, they leave behind those who have not lifted themselves up. Freire refers to this as

adhesion to the oppressor. Consider, Freire asks, the oppressed fighting for agrarian reform. When agrarian reform is attained, the oppressed then aims for owning land and becoming boss over other workers. His way of keeping his new position is by being a sub-oppressor. The oppressed is at once himself and oppressor whose consciousness he has internalized.

The pedagogy of the oppressed begins when he affirms that he is a person, and as a person should be free of being host to his oppressor. This praxis will eliminate from the eyes of both the oppressed and the oppressor 'those people,' 'the blind and envious masses,' 'savages,' 'natives,' or 'subversives.' He does something tangible to make this affirmation a reality. He looks at the world, reflects and acts upon it in order to transform it. Through this process, the oppressed and his oppressor can gain their humanity.

This review also recognizes the need to challenge the status quo, which Paulo Freire calls silence and inaction. The culturally pluralistic curricula is credited with doing away with this. The same need to question the unchanging approach to educational materials led S. Wigutoff and Iris

Santos-Rivera (1983) to look at US history textbooks. On analysis of 24 high school textbooks that stereotypes, distortions and omissions continue to pervade US high school history books, they state, reducing Puerto Rican history to little more than a footnote in the pageant of US history. The bottom line is the need for inclusion of the Puerto Rican perspective in the creation of textbooks. As Indira Gandhi said, "We want to hear Africans on events in Africa. You should similarly be able to get an Indian explanation of events in India."

While one might expect that 24 books would provide a wide variety of attitudes, events, and interpretations, the authors report that all the texts, published within the period 1961 to 1982, appear to have read exactly the same sourcebooks. Their account offering minimal and generally misleading information, are virtually identical, write Wigutoff and Santos-Rivera, consequently the books presented one-dimensional, insufficient information. Not one text mentioned pre-Spanish (Caribbean) cultures which

predated European conquest. The Puerto Rican population is portrayed as helpless and impotent, weak and passive. Columbus is quoted in one text as depicting the natives as "little babes... so good they will give you anything." (If the one asking for anything is with a whip or a gun, of course he can get anything.) The authors have written of available documentation of native reactions to the Europeans, as well as records of their efforts to resist force labor.

The colonizers did not just walk in and take over. They achieved control by causing conditions that create dog-eat-dog relationship among the indigenous groups. Impoverishment results in a dog-eat-dog relationship. By uniting and leading weaker factions against the more dominant groups, the invaders were able to construct a strong power base in the Western Hemisphere.

In every case, these books' presentations come from an Anglo perspective without any effort to include new scholarships from Puerto Rican historians. This does not come as a surprise. This research finds nutrition and health textbooks at the University of Massachusetts Food Science and Nutrition presenting oppressed countries as

basket cases, exaggerating poverty, misrepresenting the causes of malnutrition, morbidity, and debilitation. And where starvation in fact happens, the reason for their occurrence is distorted. This researcher has seen starvation photos in newly published UMass nutrition textbooks which are at least 20 years old but published over and over again since they are perfect "Third World" starvation photos.

Curriculum Principles and Foundations (Zais, 1976) analyzes curriculum construction in the US from the Civil War to recent developments--including reform implementations and innovations, and the resulting school programs. The book covers what the author considers important areas of curriculum study: 1) the dimensions of the curriculum enterprise, 2) the bases on which decisions regarding the substance of curricula are made, 3) the components of the curriculum, 4) the ways in which curricula can be organized, and 5) the processes of curriculum development and implementation.

A proponent of the theory-practice nexus, Zais commences with curriculum development at the end of World War I. He describes the curricular prescription of the conservatives-- culture and the classics-- as effete, obsolete, if not downright antique for that period. He then writes about the other corner, the liberals, who wanted reform but couldn't agree on the type of reform. There were,

within the liberal camp, two factions. Zais describes them: In one camp of liberals stood the realistic, practical utilitarian men of action, of tough frontier spirit. They called for a practical curriculum that would make each individual a success, an efficient, productive citizen in the emerging corporate state. In the other camp were the social reformers; men of action, but visionaries as well. Their philosophy rested on the other side of the American character, the side that grew out of the dreams of liberty, equality, self-fulfillment and social justice. The liberal's curriculum was aimed at the evolution of a more humane, more democratic society through individual growth and fulfillment. Zais concludes that today, the conservatives are known as the business-efficiency or management orientation in curriculum, and the liberals as the progressive education movement. Nowhere in American business, adds Zais, is success more graphically demonstrated than in the continuing dramatic increases in production... \$4.7 billion in 1850 grew to \$239 billion in 1950. "For all of its waste, inefficiency and injustice, American business and the capitalist system had given the US a per capita income higher than anywhere else. It is small wonder then that business and business methods came to be venerated not only by rank-and-file citizens, but by large numbers of American educators." Zais enumerates the factors contributing to the extravagant success of American

business: 1) an abundance of natural resources, 2) cheap immigrant labor, and 3) the advance of technology.

This study sees Zais leaving out from the above the factor provided by 200 years of free slave labor. He also overlooked the tens of millions of dollars received daily from exploitation of labor and resources of Oppressed Countries as daily profits of multinationals overseas.

G. Gay (1975) speaks of the need to have curriculum articulate philosophy. She touches on inter-ethnic group hostilities and misunderstanding in the US as the result of lack of knowledge of Americans' ethnicity. She writes: Materials, activities, and experiences that are authentic, interdisciplinary, multidimensional, comprehensive, integrative, and that employ both cognitive and affective skills should be used to help students understand ethnic differences and cultural diversity. Additive approaches, wherein school curricula remain basically the same, and ethnic content becomes an appendage to these curricula will not do the job, according to the author.

Curriculum designs must reflect a real sense of purpose. They must be organized around clearly discernible objectives which can easily be translated into instructional plans. Fragmented and isolated units, courses and bits of information... interspersed sporadically into school curriculum and instructional programs will not do the job either.

Culturally pluralistic curriculum should also seek to eliminate ethnic illiteracy, according to Gay, and make students capable of functioning well in different ethnic settings, politically efficacious, and socially activist. It should increase their cognitive knowledge bases about ethnicity, their empathetic capabilities, and their experiential contacts with regard to ethnic groups and their existence in American society, history, and culture.

It is all well and good to talk about being politically efficacious and socially active but one is subjected to limited access to the truth which leaves one with not much more than disjointed bits and pieces. Still, without an alternative, bits and pieces of puzzle makes a whole. It is the little known and unfamiliar readings that challenge the listener in the Teacher Training Workshop.

The Teacher Training Workshop in this dissertation presents many little-known and unfamiliar readings that challenge the listener. Opportunities given the workshop attendees to analyze ideas that are new may be the chemical spark that Maxine Green (1974) talks about to show that curriculum must be conceived in terms of possibility for individuals, all kinds of individuals. It must offer varying perspectives through which all kinds of people can view their own lived world. It must provide opportunities for them to see that they themselves, whoever they are,

constitute those worlds as self-determining human beings existing with others in intersubjective community.

The author writes that the fear here expressed is for such a regimented education increasingly structured by the schemata of those who think in terms of behavioral objectives, achievement testing, and management capability. Greene looks from a distance and sees many people appearing to accede. This is, however, not supported by researchers who describe an ongoing... rejection of the engineering mentality, of efficiency and compartmentalization of predefined life-goals. It may signify a growing perception by young people that these things compose an alien reality, in fact a mode of oppression... a sense of powerlessness expressed in cynicism and privatism, a lost of trust tinged with despair. Greene adds that our obligation as educators... against such powerlessness... is to enable them to perceive themselves as "subjects" rather than passive objects of control.

This research feels a need to look at the opposite side of this argument. If in fact students are "put upon" by the rigidity and compartmentalization of the curriculum, is that all bad? The Teacher Training Workshop attendees of this dissertation will be put upon by the large amount of materials to be covered. And, if despite or because of this put-uponness, are created a certain number of unresponsive people, can mediocrity, the "submerging of their

consciousness," the "powerlessness" experienced by this population, be attributed to a bad curriculum? Might it not be within the realm of possibility that were a curriculum made into god-like perfection, that a certain portion of the population would not attain "heightened consciousness" and still emerge "passive objects of control." No matter what curriculum, is it unlikely that students who commence with submerged consciousness may reach the finis still with submerged consciousness? If the population were allowed, albeit, encouraged to assert defiance ("I prefer not to,") does that guarantee that the academic bell curve would suddenly peak at the 99 percentile in a stanine? Liberating education consists of acts of cognition, Greene (obviously a disciple of Freire) concludes. To this end, what role does the right or wrong definition of curriculum play?

What qualifies this dissertation's two-weekend Teacher Training Workshop as a curriculum? Based on Greene's criteria, if the individual was challenged, was moved beyond the domestic and oppressive to surpass the everyday, then the objective of the curriculum has been attained. What defines a curriculum? R. Barrows (1984) sees the word "curriculum" as at best a broad term and at worst used in different senses by different people. In his book, Giving Teaching Back to Teachers--A Critical Introduction to Curriculum Theory, concentrates on superimposing curriculum

theory onto practice, and practice onto theory. He believes that the field of curriculum is an obvious place to bring together the interest of both theory and practice. He proposes that psychology, philosophy and sociology could be integrated; informed by history and by work in more diffused areas such as economics, politics and management.

He goes back to the Latin meaning of curriculum: Course or circuit that a journey, a race is to follow. Therefore a path or track to be determined, or course of study to be undertaken. As far as etymology goes therefore, the curriculum should be understood to be the "prescribed content" for study.

Teachers encounter overlaps in definitions within curriculum terminology. Barrows provide fine lines separating closely related, almost synonymous categories--a definite help to new teachers who are struggling with curriculum subtopics such as development, creation, design, research, proposal, planning, implementation, assessment, evaluation, time, etc.

Does a proposal of a non-traditional, alternative curriculum dealing with social changes come under "Curriculum Development" or "Curriculum Creation"? And if one, why not the other, asks the author. If there is an interest in changes, where are the changes needed? When dealing with the curriculum's acceptance at various levels, from government to classroom, is this an issue of

Implementation or Assessment? Is the problem of what to include and how to present it a problem of Design, Planning, or Development? Research is required to back such concepts as culture and knowledge and analysis of the nature of particular subjects. How then to determine that the questions of what does go on in schools as well as what ought to go on are under the subject of Evaluation and not Research? If Evaluation is a means of determining achievement of aim and level of worth of a curriculum, why not Assessment of pupil performance? The article attempts to answer all of its own questions thereby providing the needed guideline for this dissertation's Teacher Training Workshop. Barrows puts the fine lines inbetween the labels, providing a valuable service toward this disservation's program development.

By putting much emphasis on the separation of curriculum goals and objectives, A. Duelfer (1981) redefines teacher's competence as a curriculum writer. True competence, he writes, entails the ability to formulate appropriate statements about meaningful content. This competence is important to the educational program of this dissertation. There is an anticipated need to implement this Teacher Training Workshop as a bilingual/multicultural Workshop. In the Philippines, where one language fails to provide a needed spoken word, the next language or dialect

does. The distance between islands caused the development of numerous languages and dialects. This language regionalism appreciated by colonials who believed in the divide and rule policy. With increased mobility today, oral language is often bilingual, sometimes multilingual. However, this does not imply that the people depend exclusively on a multilingual "lingua franca." It is not uncommon to find a semi-literate Filipino with a minimum of formal education fluently speaking three distinct dialects or languages plus understandable English.

Dr. Duelfer continued to define objectives (terminal, instructional, and performance) clarifying to this curriculum writer that while it would not be possible to present these domains into the objectives of every unit of this dissertation's Workshop, that familiarity with these components allows for their frequent inclusion.

While it would be impossible to incorporate all levels of these domains into the objectives of every unit, the competent objective writer is aware of these components and includes them as often as possible. Competency in developing appropriate and meaningful goals and objectives for the bilingual/bicultural student is an important skill. Reconsider the goals and objectives you have written for a unit. Do they include observable behaviors? What domains do they represent? Can you add goals and objectives that represent the language and cultural domains? While there

are additional considerations that must influence teachers adamantly cite the additional rewards in teaching true bilingual education.

J. R. Verduin, Jr., (1980) presents models, constructs, and ideas suitable for teacher-training such as the program contained in this dissertation. The situation presented in his material was appropriate to the problems during the creation of this dissertation's Teacher Training Program. He approaches the problem in broad terms because of the diverse nature of educating adults in various settings. He writes: Adult educators have a task unlike traditional educators. They confront both the very highly motivated and on the extreme side, unmotivated adults; the low income and affluent; adults with basic literacy and highly technical skills; the young, the old.

Verduin addresses his work to those who carry out and lead curriculum experiences--professional staff, adult teachers, administrators, special personnel of a program, school or center curriculum workers in their educational settings.

He regrets how little has been done regarding a model for general level goals for education of all adults. For this purpose, he summarizes the 18 general goals developed by the Phi Delta Kappan (Spears, 55, No. 1:29-32) for the benefit fo adult educational curriculum builders. Leading his list: 1) Develop an awareness of civic rights and

responsibilities and of the duties of a good citizen; 2) Develop an awareness of and the ability to adjust to the changing demands of society.

From freedom, Verduin shifts to constraints as he quotes others who have stated that policy makers outside the domain of the local education agency actually fall into three main categories--governmental (federal, state and local) agencies; private organizations, and various interest groups--all exerting varying degrees of influence on the curriculum. On the government agency category, he states: Although the federal government delegates the end authority to the state level, federal government sponsors programs in adult education. Numerous rules and regulations are advanced by the government which must be adhered to by the local adult education agency. It does appear as was defined by this dissertation that education is the result of a nation molding its schools to the service of its system. Local government has its influence felt when federal government sponsored programs are directed by non-educational agencies such as city or county governments.

Under private organizations are foundations, accrediting agencies, testing companies, textbook companies that develop and publish adult education materials. The influence is varied and subtle. Interest groups (such as NAACP, ethnic groups, labor unions, National Association of

Manufacturers and some gerontology groups) can exert their pressure if it is to their advantage to influence the educational curriculum.

Behavioral Objectives in Teaching by Ronald T. Hyman (1974) discusses the pros and cons of the means-end, step-by-step approach to curriculum and teaching, where educators establish objectives as ends to be reached, select a subject matter and a teaching method, organize the teachers and pupils, and finally evaluate their activities to see if they reached their objectives. He points out in his article that a general objective takes on meaning as it is understood through the specific objectives it subsumed as well as through its relationship with other general objectives. The issue is: Are teachers intently aware of what they ask the students to do, and why they ask the students to do this?

How will the teacher know, or what does the student need to do in order to demonstrate an understanding of the topic? This is the question that will most likely be asked on analysis of the Teacher Training Program in Chapter V. How much leeway has the Workshop Attendees been given in the handling of the large quantity of material handouts?

Hyman introduces a Ralph Tyler (Basic Principles of Curriculum and Instruction, University of Chicago Press) example: If the behavioral objective states that the

student will announce the air temperature from a thermometer rounded off to the nearest five-degree mark, then obviously the teacher will provide a calibrated thermometer, treat the topic of heat and its measurement, decide on an appropriate teaching method, and decide when to examine the student on thermometer reading. At the same time, this objective offers the teacher a standard by which to evaluate the student. If the student reads the thermometer correctly, then he earns an "A" for his achievement. If not, he earns a failing mark and must proceed to restudy the topic.

Hyman's point: These educational objectives become the criteria by which materials are selected, content is outlined, instructional procedures are developed, and tests and examinations are prepared. The author warns against specificity, meaning one-outcome-verb objectives, such as 'draw a bar graph showing the popular vote each state gave to the two presidential candidates.' Such specific, one-outcome verb do not give a sense of direction to the teacher for an entire year, semester, or even a unit of study. To get more direction, the teacher needs more general words, such as understanding, appreciating, thinking and writing, i.e. verbs that not only give such direction, but they also give leeway in selecting and assessing the many different activities that occur in all teaching. The example asks the student to verify by computation from the graphs that the presidential candidate with the most popular

votes has not always won the electoral college vote. Here, the teacher is emphasizing on comprehension (in this case of the use of graphs in presenting political science data).

He concludes that teachers must be prepared to make many decisions about behavioral objectives on the spot, often making a professional choice by weighing the advantages and disadvantages of a predetermined objective against those of an objective that is unexpected.

All aspects of teacher training program are really means to accomplish basic educational purposes. Hence, Hyman concludes, if we are to study an educational program systematically and intelligently, we must first be sure as to the educational objectives aimed at. How ambitious or how challenging these objectives are is the issue. Is the Teacher Training Program too brief, too extensive, too tough, too simple? Based on these objectives, does the present day curriculum need to be upgraded or dumbed-down?

The trend to dumb-down has been going on since the 1920s when they concluded that the educational trend was too hard, writes E. Bowen (1984) in the article, "A Debate over 'Dumbing-Down'."

Readability formulas were redesigned to measure the difficulty of a text based on three factors: word length, sentence length, and the numbers of uncommon words. The same formulas decide the words and sentences deemed inappropriate--subordinate clauses and connectives became

no-nos up to certain levels; topic sentences vanished; "because" does not appear in most American schoolbooks before the eighth grade, reports Bowen. The University of Illinois Center for the Study of Reading tested a group of adults with 20 paragraphs from sixth grade texts. They were to underline the main idea--if they could find it--and if they couldn't, then to write one of their own. The group flunked on both counts. The content was so disjointed, the author says, they could not pick out a main idea. The article states that Harvard University did the study which showed that textbook quality has a direct bearing on learning. As the textbook quality declines, so do the SAT scores. The choice for simplified texts come from overworked or undertrained teachers who need something easy to handle in class.

There is an almost universal avoidance of controversy in textbooks and this controversy is what the author presumed to be eliminated when "a McGraw-Hill fifth-grade social studies textbook, United States, teaches that former President Nixon became enmesh in Watergate 'because he tried to help his friends.'"

Between dumbing down and avoidance of controversy, reading materials on social consciousness carrying heavier messages are unlikely to push off the dumbed-down existing texts. On this, it is appropriate to recall Janet Whitla's

presentation of what is known about intellectual growth and the personal and social development of children in elementary grades. Classroom-centered Evaluation: A Humanistic Approach for the Social Studies (Whitla, 1976) states that in the author's own work, she has found it useful to start by considering what is known about intellectual growth and the personal and social development of children in the elementary grades. Teachers daily observe the energy, enthusiasm and insatiable appetite for information that children bring to any subject that interests them and the industriousness and mutual helpfulness that accompany such interest. We cannot help but be aware, too, of individual differences in development and in personality style. In addition to our own insights, we can look to developmental psychologists for some important formulations about childhood that provide an organizing perspective on the age group as a whole.

Whitla recalls Eric Erikson's (Identity and the Life Cycle, Intl. University Press, NY, 1959) contribution to the understanding of human development. Ericson suggests that at each stage people have to establish a new basic orientations to themselves and their social world. Children from six to eleven, he writes, are developing a sense of industry--of working to accomplish something--and in the process they are testing their competence in relation to the external world. There is concern with how things are made,

how they work and what they do. Whitla also quotes R. M. Jones's (Fantasy and Feeling in Education, NY University Press, 1968) statement that if the child learns to coordinate mastery of basic intellectual skills with mastery of the related social techniques of cooperative behavior, he or she then begins to view life as an interesting challenge. In other words, school is a major testing ground for competence.

The author quotes John Dewey (Democracy and Education, NY: Macmillan, 1916) on a child of eight or nine to eleven or twelve: The mere play or activity no longer directly satisfies. "Which suggests," writes Whitla, "that the evaluation process need not be solely a means to the end of grading. Evaluation can be a tool to strengthen the efforts of the curriculum to develop students abilities. For example, using evidence, hypothesizing, analyzing and synthesizing, actively participating in classroom activities, and raising and exploring important questions about the social world and one's role in it can all be practiced as a means of upgrading the learning process. It must be felt to accomplish something--to lead up to a definite and abiding outcome."

It is based on theories such J. Whitla's that this writer considered the feasibility of elementary school teachers disseminating information on social issues to very receptive elementary school pupils.

Lastly, this writer acknowledges the authors who helped identify for her the skills and concepts involved in the development of her Teacher Training Program (Chapter V). G. J. Posner and A. N. Rudnitsky (1978) wrote Course Design - A Guide to Curriculum Development for Teachers. It guides the student through a systematic yet flexible actual course planning. The book is thorough and self-contained, having organized a process with a focus, course rationale, relevant design theory, exercises and examples, glossary of terms, bibliography and references. The two student-created sample course designs in the appendices are valuable addendum to their book. The student is able to see an efficient finished product that is short and do-able. Course Design is one of the most efficient and easiest books to use as a guide on this subject. The authors present their instructions in such a sequence that the student is able to follow the details of the course. Posner and Rudnitsky repeatedly remind their reader throughout the book that course planning begins with and is based on a clearly recognized motivation or source; a recognition of the capacities, needs and interests of the students, and a familiarity with current approaches to the subject matter. The book details very understandable analyses of disciplines, learning objectives, evaluation of student learnings and developing general teaching strategies and course rationale.

Henry Giroux (1981) in his essay, "Toward a New Sociology of Curriculum" introduces a group of educational theorists who have challenged basic assumptions on the purpose and nature of educational inquiry who want more flexible and humanizing forms of teaching. Is the curriculum field confident of its way of reasoning? Of its methodology? What is at stake, writes Giroux, is more than a conceptual problem. Is the curriculum field in a state of arrest? Someone should ask how much freedom is needed. There may be a question on whether curriculum should be able to develop emancipatory intentions. Maybe curriculum should be emancipated.

The next chapter, Chapter IV, will merge the emancipatory curricular activities dealt with at length by the various educator-authors in the preceding review of educational literature, together with nontraditional topics and tools for education.

The Philippines, the showcase of the West in Asia in the 1950s was molded to glorify everything Western and belittle everything indigenous, especially food. This attitude has helped bring about the country's present state of economic collapse. Eating foods grown by foreign farmers use up precious foreign exchange and deprived Filipino farmers of their livelihood. Eating local foods benefit the local farmers. If the local farmers (67 percent of the population) were growing crops with a market, they have a

livelihood. And when 67 percent of the population are with livelihood, the national economy is satisfactory. More than a decade of Marcos dictatorship left the Philippine small farmers without a decent livelihood. To reverse this collapse need reeducation. Tools are needed for this reeducation. Tools have to be used to gauge the value of reeducation. One such tool is the Food Intake Diary and its use will be the topic of the next chapter.

C H A P T E R I V
THE FOOD INTAKE DIARY AS AN EDUCATIONAL TOOL

Introduction

An emancipatory curriculum is most applicable to the thesis of the political economy of indigenous foods. Eating local benefits the indigenous farmers and the national treasury. Foreign exchange is not used up to buy foods that can be substituted with local equivalents. But what of the food values? How can one gauge whether a native substitute is as valuable as its imported counterpart? Tools have to be used as gauge, and one such tool is the Food Diary.

The Food Intake Diary is an instrument by which a health education teacher can learn to collect, formulate and analyze food intake. A Food Diary, used extensively in health and nutrition institutions in the US, is important in that it records the eating pattern of a subject. It shows the food nutrients received or missing from that eating pattern. This health education instrument enables non-nutritionist elementary school teachers to add to their skills the ability to determine the nutrient intake of a subject based on the subject's food intake pattern. This knowledge aids the teacher to disseminate information on eating habits in localities where there are no nutritionists or doctors. To clarify, where there are nutritionists,

nurses or doctors, such situations will no doubt be referred.

To learn this instrument's process sequentially, Chapter IV has designed a hypothetical eight-day Food Diary. It was created to guide the teacher through the step by step process. Upon learning the formulas and process, the teacher and subject can determine which nutrients are of particular concern. (Appendix A, The Comparative Study of Interchangeable Foods, is the learning instrument for identifying the indigenous foods containing nutrients of short supply.) This process is intended to be learned manually in the Teacher Training Workshop (Chapter V). Since typewriters and computers are unavailable in areas where the Workshop will be held, the forms for calculations and formulas are handwritten. The forms in this dissertation including the Workshop are therefore presented as has been filled by hand.

However, in certain large cities, there exist nutrient data banks which performs this procedure in a fraction of the time it takes to do with paper and pencil. The University of Massachusetts-Amherst has one such bank, The Massachusetts Nutrient Data Bank at the Chenoweth Laboratory of the Department Food Science and Nutrition. This study learned the computerize process, and the print-outs are utilized in this chapter as a teaching devise and resource.

The Data Bank was a welcome aide this writer. The print-outs from the data bank reassures non-nutritionist

educators of their ability to comprehend the procedure, and utilize opportunities to assist in nutrition information dissemination in localities which nutritionists and medical personnel do not frequent.

The use of Food Intake Diary is less important for people who are receiving three or more generous, middle-class meals a day. The nutritional well-being of these people are not at stake. However, the Food Intake Diary could provide them with other vital information about their eating habits. Where the Diary is of considerable value is to children of impoverished, disenfranchised families. In such families, there is too little money for food, but whatever money there is may be spent on food that contribute little towards good health. This study hopes to bring about one more empowerment-- nutritional awareness.

Indigenous Foods

This study introduces edible flora and fauna in the Philippines, many of which are exotics. These foods are available to rural, tropical impoverished inhabitants, and this study will show how these meals rate in the US recommended dietary daily allowance for food nutrients for adults.

Universally, exotic foods are sought after by the very sophisticated in search of exciting foods, or the very poor in search of any food. This research shows that the poor in

the tropics have turned their attention to almost anything edible for their sustenance. This variety is a culinary and nutritional advantage. Anything with its back up toward the sky has been caught, cooked and eaten, including honeybee pupa, birds' nest, water beetles, locust, octopus, snake, iguana and nail-size snails. This researcher describes them all as very delicious and highly nutritious.

Gourmet foods can come free to the poor of the tropics. Or maybe the poor have a talent for turning inexpensive, readily available foods into gourmet specialties. Tiny crabs, the size of a quarter, are caught by the sackful. When the crabs are in, every available hand is recruited to the kitchen to the task of filling small jars with the delicately delicious meat and fat squeezed from hundreds of these crabs, to indulge the palate. It is a chore that leaves one cross-eyed.

Schools of sinarapan fish, a specie no longer than a quarter inch are caught and pickled (tabyos). Surfeited by meaty and dairy-rich American foods, Filipinos in the US often dream of this delicacy.

Alamang (krill, a quarter-inch long shrimp) is plentiful. The poor people use copious quantities of krill as accompaniment to rice and soups, and unknown to most of them is their main source of protein. Krill is often preserved with salt making the food nonperishable and fit for consumption even without refrigeration nor sterile

environment for days. Excessive salting however results in limited consumption thereby limiting the intake of protein.

Method of Study

From the researcher's knowledge of foods in rural Philippines and from references, a list was made in English and the corresponding Filipino name of indigenous, inexpensive tropical foods. An "Adding New Food Item" form was used for the food items. In the course of analyzing the nutrient contents and portions, this researcher consulted with Filipino residents in Amherst in the choice of foods and portions.

The next step of the study was to complete a separate list from the East Asian Foods Composition Book and the Food Composition Table of the Philippines. This list was checked against the University of Massachusetts Nutrient Data Bank card catalog to see which were already in the Bank. Ingredient and Portion Codes were transferred from the Card Catalog to the list. On completion of this search, the codes were entered into the computer for a Check Program print-out. The other foods not in the Data Bank involved a literature search for calories and other nutrients contents.

The software which accompanies this extensive collection of compositional data makes it possible to perform complex calculations of dietary status... amino acid scores

of mixed protein in meals, absorbable iron, niacin equivalents, and daily nutrient subtotals provided by various major and minor food groups... in addition to the intake of 23 other nutrients.

This research has added to the Data Bank approximately 300 foods indigenous to the Philippines and the rest of Southeast Asia. Currently available computerized food intake data collection and coding methodologies has been modified for use in the Philippines.

A copy of the list of incomplete food nutrients was sent to the Philippine Ministry of Foods and Nutrition. The Ministry in turn sent this researcher more data and a copy of their Philippine Food Table.

Meal and Portion Determination

The hypothetical subject of this study is male, 30-38 years old, unemployed except for part-time odd jobs (pick and shovel worker, tree climber or tree feller), without any welfare benefits, and with 2 dependents. His region is coastal, in the periphery of a secondary city of a tropical island.

The Subject's total meat consumption for eight days:

- 1/2 cup of ground beef, heavy fat class
- 100 grams of salted pork, heavy fat class
- 1 cup diced kidney and lung of cow
- 1 each, chicken wing and neck
- 100 grams beef trip

The following were factors considered in the preparation of the meals in this diary:

Although fruits are included as part of the meals, they may actually be eaten one or two hours after a meal as an inbetween meal snack.

Typical of many poor, the subject/eater uses excessive sugar, an inexpensive item in the Philippines.

Two cups of rice may sound a lot, but it is a typical, normal amount for individuals in the Philippines.

Bread is pandesal (a two-inch French roll) made from white flour, leavening, salt and water.

Coffee is a luxury since it is a cash crop. The subject indulges on coffee once in this diary. Other beverages are consumed.

Although the subject may tend four or five chickens, egg is a cash source and most of the eggs are taken to market.

Seafoods, especially shellfoods are readily available to subject, either gathered by the family or bartered with garden produce with fishermen-neighbors. An occasional canned food is status symbol--symbol of eating modern--and canned mackarel or Vienna sausage is the cheapest of canned food available.

The poor of the tropics, as with the poor of the US, have a propensity for fast foods. There are counters where rice or noodle soups and other ready-to-eat foods can be

bought and brought home. One dish in this Diary that is likely to be bought cooked rather than go through the steps of preparation at home is Ginataan, Breakfast, Day 5.

Resources

Members of the Filipino community in Amherst originating from various areas of the Philippines have provided this research with recommendations on portion sizes, choice of foods, and cultural variations within the Philippines. In choosing these individuals, this researcher was sensitive to the need to locate those whose economic backgrounds could relate to the economic circumstances of one such as the hypothetical subject. It would have jeopardized the credibility of this study if these individuals were from an economic level unfamiliar with what foods are available to the Philippine poor. As it were, the individuals who were willing to assist in this study are from sections of the Philippines where poverty is prevalent. These individuals cannot be classified as wealthy or of the elite. The fact that these Filipinos are in the US (studying or working) has no bearing on their economic status during their growing years. Many students are sent to the US as scholars from economically deprived families. In the US, they support themselves with two or three jobs, more often than not sending funds back home to help support younger brother and sisters.

A resource used in the choice of foods and portions in these survival meals is the organization called the Volunteer Aid to School Age Children in Manila. The president of this organization, Mrs. Lucina C. Alday, who before her retirement was Director of the Bureau of Women and Children in the Ministry of Social Welfare in the Philippines, participated in this research by analyzing the food diaries and comparing the food intake of the hypothetical subject with those of the youth who are clients of her organization.

Another nutritionist, specifically one from a temperate zone (such as the mountainous Szechuan area in China, northern Korea and the pockets of poverty in the less prosperous Japan of the past) may find these hypothetical meals extravagant for a poor person. This is understandable. This nutritionist should take into consideration the environment in a completely tropical atmosphere such as the Philippines where edibles are growing year-round. These year-round flora not only provides food for humans, it also provides food for self-supporting domestic animals which rural families can keep around their homes. The description, self-supporting, can be applied to indigenous, hardy domestic animals. High breed varieties, the imported breed cannot be described as self-supporting. High breed animals require special food and attention, an added burden to poor families.

INGREDIENTS AND PORTIONS

This Food Intake Diary can be used for both data bank computation and manual computation. It is for this reason that the forms in this study are handwritten. It is not likely that a typewriter will be available to subjects or clients.

In making a diary, it important to indicate portions as it will avoid needing to go back to the Card Catalog or Food Table.

This study improved on the original Nutrient Data Bank form by including the vertical lines for the transferring of codes (where it says "Do Not Write in this Space"). The periods and spaces of the coding process can be very confusing for the beginning user of the Data Bank coding system.

Do not write in this space

Time of day Amount

Description

Day 1

Breakfast	2 cups	Rice, undermilled, boiled	018702-A-2.	Kanin (pinawa)
	100 gms	Fish, smoked	011310-1-11.	Tinapa
	1 pc	Tomato	022821-B-1.	Kamotia
	2 cups	Coffee, brewed	00FFEE-B-2.	Kape
	1/2 cup	Sugar, brown	0222A0-A-1.3	Quescal
	1 pc	Banana 7 3/4"	001410-C-11.	Saging
Lunch	1 cup	Cocunut Milk	010720-A-11.	Data
	1/2 tsp	Salt	019630-C-1.5	Qsinn
	2 Tbsp	Onion, minced	014121-D-2.	Sibuyas } Qisado
	1 Tbsp	Cocunut oil	804047-A-1.	Langis } Pagsulyo
	2 cloves	Garlic	010290-A-2.	Lawang sa Data
	100 gm	Swamp Cabbage	022390-1-11.	Pagsulyo
	2 cups	Rice, undermilled	018702-A-2.	Kanin
	100 gm	Shrimp, small, steamed	020420-1-11.	Tagunton, suwom
Dinner	2 cups	Rice undermilled	018702-A-11.	Kanin
	1 cup	Mung, sprout	MUNGB-1-A-1.	Taga
	1/4 lb	Tomato, firm	T0#07-1-A-4.	Takwa
	1 Tbsp	Cocunut oil	804047-A-1.	Langis } Qisado
	5 tsp.	Shrimp paste	020470-A-5.	Bigoong } Taga
	1/2 tsp	Salt	019630-C-1.5	Qsinn
	1/4 cup	Green peas	011410-B-1.25	Sibuyas
	1/2 lb	Sweet potato	022473-D-1.5	Kamote nilaga
	2 cups	Watermelon diced	024240-C-2.	Pakwan

PHILIPPINE DISH

Time of day	Day 2 Amount	Description	Do not write in this space	PHILIPPINE DISH	
Breakfast	2 pcs	French bread	0044180-D-2.	Pandesal 1 klog Kamayan Hinisa Sibuyas 1 klog Sangit	
	med. egg	Egg raw	0097710-C-1.5		
	1 pc	Tomato	0222821-E-1.1.		
	2 Tbsp	Onion	0114122-D-2.		
	1 Tbsp.	Coconut oil	804047-A-1.1.		
Lunch	1/2 cup	Green Onion	0114160-B-1.25	Sibuyas Mura* Tulya* Luya* Pipino Suka } salad Tayo Kamayan Marin nilaga Karne Himling Sibuyas Patatas Karin Tuyo Dalandan Mustasa manan	
	1/2 lb	Clams, small round	0077110-C-1.5		
	.06 lbs	ginger fresh	0102510-B-1.06		
	1 cup	Cucumber sliced	0094130-C-1.1.		
	3 Tbsp	Vinegar distilled	0240720-C-1.3.		
	1 Tbsp	Soy sauce	806134-A-1.1.		
	2 cups	Rice, undermilled boiled	018702-A-2.		
	100 gm	Peanuts boiled	0114940--1.1.		
Dinner	1/2 cup	ground beef	003690-D-1.5	Karne Himling Sibuyas Patatas Karin Tuyo Dalandan Mustasa manan	
	2 Tbsp	Onion minced	014121-D-2.		
	1/2 lb	Potatoes	0117852-F-1.5		
	2 cups	Rice undermilled	018702-A-2.		
	100 gm	Fish smoked	0113110-I-1.1.		
	1 pc	Pectarine pickled salt	013740-A-1.		
	1 cup	Mustard green	013672--1.1.		

PHILIPPINE DISH

Do not write in this space

..... of day
 Day 3

Amount	Description	Do not write in this space	PHILIPPINE DISH
1/2 cup	Sweet Rice	S118110-E-A-1.5	Malagkit*
1/2 cup	Rice undermilled	01181610-A-1.5	Bigas*
4 clove	Garlic	01102910-A-4.	Bawang*
1/4 cup	Onion green	01141150-A-1.25	Sibuyan*
2 Tbsp	Coconut oil	804047-A-2.	Langka mura*
1/4 lb	Tofu firm	T07077-B-4.	Tokwa
1/4 cup	Onion mature	0114122-A-1.25	Sibuyan*
2 Tbsp	Coconut oil	804047-A-2.	Langka*
100 gm	Beef tripe	0231160-1-1.	Moto* [sugar substitute]
1 cup	Mung beans boiled	0018111-A-1.	Munggo nilaga
2 Tbsp	Sugar granulated	022300-1-1.17	Asukal
1 cup	Eggplant, boiled	009871-A-1.	Talong
1/4 cup	Vinegar, cider	024060-B-2.25	Suka
2 clove	Garlic	0110290-A-2.	Bawang
2 cups	Rice undermilled	0119702-A-2.	Kamin
1 pc	Yellow corn cob	008451-A-1.	Mais
1/2 lb	Cow pea pod	009021-A-1.5	Sitaw
100 gm	Pork, salted	017650-1-1.	Baboy (Hisado)
2 Tbsp	Onion minced	0114121-D-2.	Sibuyan
2 clove	Garlic	0110290-A-2.	Bawang
3 tsp	Shrimp paste	0210470-A-3.	Bagueng
1/2 tsp	Salt	019230-C-1.5	(Asin)
2 cup	Rice undermilled	012702-A-2.	Kamin
1 cup	Papaya ripe, sliced	014710-B-1.	Papaya

PHILIPPINE DISH

Do not write in this space

Amount

Time of day

Page 4

Time of day	Amount	Description	Do not write in this space	PHILIPPINE DISH
Breakfast	100 gm	Wackanal, canned	013070-1-11.	Isda Salata
	2 pc	tomatoes small	022821-1-B-2.	Kamatis
	2 Tbsp	Onion mature	011412-1-D-2.	Sibuyas
	2 pcs	French bread	0104480-1-D-2.	Pandesal
Lunch	100 gm	Pongy fish, raw	0116580-1-11.	Isda
	1 cup	Radish oriental	0112440-1-D-11.	Sabanas
	1/2 cup	Vinegar cider	024060-1-B-15	Suka } Singing
	1 pc	tomato	022821-1-B-11.	Kamatis
	1/2 cup	Scallion	014170-A-15	Sibuyas mura
	1 cup	Mustard green	013671-1-A-11.	Mustasa
	1 cup	Papaya ripe, dried	014710-B-11.	Papaya
	2 cups	Rice	0118702-1-A-2.	Kamun
	2 cups	ginger tea	0110350-1-B-11.	Salabat
	4 Tbsp	brown sugar	022290-1-A-4.	Qantad
Dinner	1 cup	oyster meat	014430-B-11.	Talaba
	1/2 cup	Scallions minced	014170-1-A-25	Sibuyas mura } Talaba
	1/2 cup	onion minced	014122-1-A-25	Sibuyas
	1/2 cup	Vinegar	024060-1-B-15.	Suka
	100 gm	Seaweed agar	020270-1-11.	Bulamam
	2 Tbsp	Brown sugar	022290-A-2.	Qantad Pulad
	1 cup	Zucchini squash	021970-A-11.	Patola
	50 gm	Fish roe	012940-1-15	Iklog Isda } Turaso
	2 clove	Garlic	010240-A-21.	Bawang
	2 Tbsp	Onion minced	014121-1-D-2.	Sibuyas
2 cup	Pine undermilled	012702-A-11.	Famin	

PHILIPPINE DISH

Do not write in this space

Time of day

Amount

Description

1 Day 5

Time of day	Amount	Description	Do not write in this space	PHILIPPINE DISH
Breakfast	1 cup	Coconut milk	007920-A-11.	Hata
	1/2 cup	Sugar brown	022300-B-33	Asukal
	1/2 lb	Sweet potato diced	022473-D-15	Kamote
	1 pc	Banana, small	0101410-C-11.	Saging Pandusal
	2 pcs	French bread	010480-D-21.	
Lunch	1/2 lb	Ham	0111200-B-11.	Isda
	1/2 lb	Amaranth leaves	000110-A-15	Kulitis
	1/4 cup	Vinegar	024070-B-125	Sulca Pinaragat
	1 oz	Shrimp fresh	010350-B-21.	Sungu Isda
	2 pcs	Tomatoes	022821-B-14.	Kamatis
	1 cup	Melon	011300-C-11.	Melon
	5 tsp	Shrimp paste	020470-A-51.	Bagoong
	1/2 tsp	Salt	019300-C-15	Qum
	2 cups	Rice	018700-A-12.	Kamir
Dinner	1/2 lb	Corn kernels raw	008411-A-15	4Mais
	100 gm	Shrimp small	020420--11.	Hygan
	2 Tbsp	Onion minced	014121-D-21.	Sibuyan Sinabaw
	1/2 cup	carrots	006190-D-15	Karot Mais
	2 cloves	Garlic	010200-A-12.	Bawang
	2 cups	Rice	018700-A-12.	Kamir
	1 cup	Baguette bread	009871-A-11.	Talong nilaga
	1/4 cup	Vinegar cider	024260-B-125	Sulca
	1 T	Soy sauce	021560-B-11.	Toyo

Date May 6

Time of day

Amount

Description

Do not write in this space

PHILIPPINE DISH →

Breakfast	1/2 lb	Sweet potato balls	022501-B-15	Kamote nilaga
	1 cup	Rice porridge	018702-A-21	lugaw
	1/2 lb	Tofu firm	T0707-B-15	Takwa
	1/4 cup	Onion mature	014122-A-15	Sibuyas
	2 Tbsp	Coconut oil	004047-A-21	langisa
Lunch	1/2 lb	Cowpea	009021-A-11	Sitaw
	100 gm	Shrimp small	020420-1-11	Hyon Taguntan
	2 Tbsp	Coconut oil	8041047-A-21	langisa
	4 Tbsp	Shrimp paste	020470-A-14	lagoong
	1/2 tsp	Salt	01A300-0-15	asin
	2 cups	Rice	018702-A-21	Kanin
	1 pc	Parsimmon fruit	015510-A-11	Mabolo
Dinner	200 gm	Mackerel fish	213060-1-12	Isda
	1/4 cup	Matto salted	N4710-A-25	Tausi
	1/4 cup	Vinegar	024070-B-125	Suka
	2 oz	Shinger	010250-B-12	lugaw Isda
	1/4 Tbsp	Soy sauce	0211500-B-125	Toyo
	2 Tbsp	Coconut oil	8041047-A-12	langisa
	2 cup	Rice	012702-A-12	Kanin

Date May 7

Time of day	Amount	Description	Do not write in this space.	PHILIPPINE DISH
Breakfast	2 ears	Comm raw yellow	008451-A-11	milaga mais
	1 cup	Mung beans	001672-A-12	Nilagang mungo
	2 cups	Herb Tea	11ERB1A1-B-21	Cha-a
Snack	1 cup	Radish raw sliced	018440-D-11	labanos
	1 cup	Mustard greens	013361-A-25	mustasa
	2 Tbsp	Onion mature minced	014121-D-21	ribuyar } Singang
	1/2 lb	Tomato raw ripe	022823-J-33	Kamatis
	200 gm	mactanel raw	013000-I-12	isda
	1/2 cup	Vinegar distilled	024070-B-125	puta
	4 tsp	Shrimp paste	020470-A-14	bagong
	1/2 tsp	Salt	019630-C-15	asin
	2 cups	Rice	018702-A-12	Kanin
	Dinner	2 cloves	Garlic	010290-A-2	bawang
1/2 cup		Edney beef	001600-A-15	balumbawan
100 gm		Fung beef	012920-1-11	baga
1/2 cup		Onions	007530-A-25	garbanos } Arado
1/2 Tbsp		Soy sauce	806134-A-25	tayo
4 oz		Tofu	T07107-A-14	Takwa
2 cups		Rice	018702-A-12	Kanin
1/2 lb		Mustard Greens	013360-14-25	mustasa masman

Time of day	Amount	Description	Do not write in this space.	PHILIPPINE DISH
Day 8				
Breakfast	1 cup	Rice, glutinous	SWR1E-A-11.	Kanin. (pinawa)
	1/2 cup	Coconut grated fresh	007890-A-1-5	niyog
	2 Tbsp	Brown Sugar	032290-A-2.	aswical gula
	1 pc	Egg, boiled	009740-A-1-5	siklog maalat
	1/2 tsp	Salt	019630-C-1-5	asin
Lunch	1 pc	chicken wing	007170-B-11.	patpat manok
	1 pc	chicken neck	007110-B-11.	laag "
	1 cup	Coconut milk	007920-A-11.	gata } Odobo
	3 oz	Ginger root	010350-B-3.	luya } sa bata
	1 cup	Squash dried	021910-A-11.	Kalabasa
	1 cup	Papaya ripe dried	014710-B-11.	Papaya
	2 cup	Rice	018702-A-2.	Kanin
Dinner	100 gm	Mussels, steamed	013630-i-11.	Halaam
	1 cup	Cabbage	005133-A-1.	repollo
	3 oz	Pork	017740-F-11.	Baboy } Hissado
	2 Tbsp	Onion	014121-D-2.	Sibuyan } Bayabayo
	1 pc	Tomato	022221-B-1.	Kamatis
	2 cups	Rice	018702-A-2.	Kanin
	1 cup	Pineapple	016110-A-1.	Pinya

PRINT-OUT OF DIARY

This is the total nutrient intake of the subject, per day, and per meal. The column "Sum" lists the total nutrient intake for that day. This total will then be compared with the adult Recommended Daily Dietary Allowance. The result will determine how well the subject's food intake and eating habits provide the needed nutrients.

This print-out gives at a glance the nutrient content of Philippine foods used in this study. Where the services of a data bank is not available, the calculation will be done by hand, as has been done prior to the advent of computers. Food nutrient determination done by hand will obviously not be as extensive as by computer. The calculations can be limited to nutrients of particular and significant concern. While it is true that micronutrients are crucial for the person's well-being, until a data bank is installed in the level, micronutrient contents of village foods will have to be neglected.

SOBJIT: DA
DAY: 1

FOOD	CALORIES	PROTEIN (GM)	TOTAL FAT (GM)	SAT FAT (GM)	FOLY (GM)	CARBO- CRUPE (GM)	FIBER (GM)	VITAMIN A (I.U)	THIA (MG)	FLAVIN (MG)	NIACIN (MG)	VITAMIN C (MG)	CALCIUM (MG)	PHOS- PHORUS (MG)	IRON (MG)	SOI- IUM (MG)	FOIA- FOLIC (GM)
010702	464.	9.8	2.3	0.0	0.0	99.4	1.2	0.	.4	.1	5.5	0.0	46.8	285.	2.0	0.000	.273 0.000
011310	300.	36.9	15.8	2.0	2.0	0.0	0.0	30.	.0	.3	3.3	0.0	66.0	254.	1.4	6.231	.157 .181
022021	27.	1.4	1.2	0.0	0.0	5.8	.6	1106.	.1	.0	9	28.3	16.0	33.	.6	.004	.300 0.000
COFFEE	20.	1.0	0.0	0.0	0.0	4.3	0.0	0.	0.0	0.0	1.4	0.0	9.6	20.	.4	.004	.206 0.000
022290	162.	0.0	0.0	0.0	0.0	41.9	0.0	0.	.0	.0	.1	0.0	37.0	8.	1.5	.013	.150 0.000
001410	81.	1.0	.2	0.0	0.0	21.1	.5	181.	.0	.1	.7	9.5	7.6	25.	.7	.001	.352 0.000
MEAL 1	1054.	50.1	18.6	2.0	2.0	172.6	2.3	1317.	.5	.5	11.8	37.8	183.0	625.	6.5	6.253	1.438 .181
022390	21.	2.2	.2	0.0	0.0	3.9	.9	5200.	.0	.1	.5	16.0	55.0	32.	1.5	.014	.088 0.000
007920	605.	7.7	59.8	51.4	0.0	12.5	0.0	0.	.1	0.0	1.9	4.8	38.4	240.	3.8	.060	.353 0.000
020470	50.	5.8	2.6	1.4	0.0	.4	0.0	17.	.0	.1	.5	0.0	32.2	74.	.9	.039	.034 .048
019630	0.	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.0	0.0	7.0	2.	.0	1.066	.000 0.000
014121	8.	.3	.0	0.0	0.0	1.7	.1	8.	.0	.0	0.0	2.0	5.4	7.	.1	.002	.031 0.000
804047	120.	0.0	13.6	11.8	.2	0.0	0.0	0.	0.0	0.0	0.0	0.0	0.0	0.	0.	0.000	0.000 0.000
010290	8.	.4	.0	0.0	0.0	1.8	.1	0.	.0	.0	.0	.9	1.7	12.	.1	.001	.032 0.000
018702	464.	9.8	2.3	0.0	0.0	99.4	1.2	0.	.4	.1	5.5	0.0	46.8	285.	2.0	0.000	.273 0.000
020420	91.	18.1	.8	0.0	0.0	1.5	0.0	0.	.0	.0	3.2	0.0	63.0	166.	1.6	.140	.220 .150
MEAL 2	1367.	44.2	79.4	64.5	.2	121.3	2.3	5225.	.5	.3	11.7	23.7	249.5	817.	10.0	1.322	1.031 .198
018702	464.	9.8	2.3	0.0	0.0	99.4	1.2	0.	.4	.1	5.5	0.0	46.8	285.	2.0	0.000	.273 0.000
MUNGR	33.	2.8	1	0.0	0.0	5.1	0.0	0.	.1	.2	4.3	36.9	45.2	29.	2.0	0.000	.290 0.000
TOFUF	145.	16.2	7.9	0.0	0.0	2.5	.1	0.	.1	.0	.1	.5	60.6	214.	3.6	.008	.000 0.000
804047	120.	0.0	13.6	11.8	.2	0.0	0.0	0.	0.0	0.0	0.0	0.0	0.0	0.	.0	0.000	0.000 0.000
020470	63.	7.3	3.3	1.8	0.0	.6	0.0	21.	.0	.1	.6	0.0	40.3	92.	1.1	.049	.043 .060
019630	0.	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.0	0.0	7.0	2.	.0	1.066	.000 0.000
014160	11.	.3	.0	0.0	0.0	2.6	.3	0.	.0	.0	.1	6.3	10.0	10.	.2	.001	.058 0.000
022473	268.	3.7	1.4	0.0	0.0	45.9	1.6	1225.	.2	.1	1.2	46.9	65.8	68.	1.4	.070	.496 0.000
024240	83.	1.6	.6	0.0	0.0	20.5	1.0	1888.	.1	.1	.6	22.4	22.4	32.	1.6	.003	.320 0.000
MEAL 3	1126.	41.6	29.4	13.5	.2	176.6	4.3	3134.	.9	.7	12.5	116.0	297.4	760.	11.8	1.147	1.479 .060
***SUM**	3549.	135.9	127.3	80.1	2.5	470.6	8.9	9675.	1.9	1.4	35.9	177.4	729.9	2202.	28.3	8.722	3.949 .439

PERCENT OF CALORIES		MG	
PROTEIN	15.32	FOLATE	.289
FAT	32.29	B6	1.7
CARBOHYDRATE	33.03	B12/MCG	2.2
SUGARS	11.72	ZINC	202.9
P:S RATIO	.03	MAGNESIUM	70.0
CA:PO4 RATIO	.33		

NIACIN EQUIVALENTS = 58.5 MG.
AA SCORE = .9356
UTILIZABLE PROTEIN/GM = 104.4 BASED UPON AA COMP. OF 82.1% OF THE TOTAL PROTEIN.

FOOD	CALORIES	PROTEIN (GM)	TOTAL FAT (GM)	SAT FAT (GM)	POLY (GM)	HYDRATE (GM)	CAKHO- (GM)	CRUJ- (GM)	FIBER (GM)	VITAMIN A (IU)	THIA- (MG)	KIND- (MG)	FLAVIN (MG)	NIACIN (MG)	VITAMIN C (MG)	CALCIUM (MG)	PHOS- (MG)	IRON (MG)	SODIUM (MG)	POTA- (MG)	CHOL (MG)
004380	145.	4.6	1.5	.3	.4	27.7	.1	0.	0.	0.	.0	.0	.4	0.0	21.5	43.	.4	.290	.045	.002	
009770	48.	3.1	3.6	1.2	.2	.7	0.0	302.	.0	.1	.0	0.0	22.4	53.	.5	.072	.041	.114			
013671	27.	1.4	.2	0.0	0.0	5.8	.1	1106.	.1	.0	.9	28.3	18.0	33.	.6	.004	.300	0.000			
014122	8.	.3	.0	0.0	0.0	1.7	.1	0.	0.	0.	.0	0.0	5.4	7.	.1	.002	.031	0.000			
804047	120.	0.0	13.6	11.8	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.000	0.000	0.000	
MEAL 1	348.	9.3	19.0	13.3	.9	35.9	.8	1408.	.1	.2	1.3	30.3	65.3	136.	1.5	.368	.417	.115			
014160	11.	.3	.0	0.0	0.0	2.6	.3	0.	.0	.0	.1	6.3	10.0	10.	.2	.001	.058	0.000			
007710	181.	25.2	2.0	0.0	0.0	13.4	.2	227.	.2	.3	2.9	22.7	156.5	342.	17.0	.465	.705	.113			
010350	13.	.4	.3	0.0	0.0	2.5	.3	3.	0.	0.	.2	1.1	6.1	9.	.6	.002	.070	0.000			
009430	20.	.8	.1	0.0	0.0	4.5	.4	0.	0.	0.	.3	15.4	23.8	25.	.4	.008	.224	0.000			
024070	5.	0.0	0.0	0.0	0.0	2.3	0.0	0.	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.000	.007	0.000			
806134	12.	1.6	0.0	0.0	0.0	1.5	0.0	0.	.0	.0	.6	0.0	3.4	38.	.5	1.029	.064	0.000			
018702	464.	9.8	2.3	0.0	0.0	99.4	1.2	0.	.4	.1	5.5	0.0	46.8	285.	2.0	0.000	.273	0.000			
014940	376.	15.5	31.5	7.0	9.0	14.5	1.8	0.	.5	1.0	10.0	0.0	43.0	181.	1.3	.004	.462	0.000			
003690	303.	20.2	24.0	11.5	.5	0.0	0.0	41.	1.	2.0	4.9	0.0	11.3	176.	3.1	.071	.324	.077			
014121	8.	.3	.0	0.0	0.0	1.7	.1	8.	0.	0.	.0	2.0	5.4	7.	.1	.002	.031	0.000			
017952	155.	4.3	.2	0.0	0.0	34.9	1.0	0.	.2	.1	3.1	53.1	14.3	108.	1.2	.006	.831	0.000			
018702	464.	9.8	2.3	0.0	0.0	99.4	1.2	0.	.4	.1	5.5	0.0	46.8	285.	2.0	0.000	.273	0.000			
011310	300.	36.9	15.8	2.0	2.0	0.0	0.0	30.	0.	3.0	3.3	0.0	66.0	254.	1.4	6.231	.157	.181			
017740	88.	.8	0.0	0.0	0.0	23.6	.6	2277.	.0	.1	1.4	17.9	5.5	33.	.7	.008	.406	0.000			
013672	23.	.4	.4	0.0	0.0	4.0	.9	5800.	.1	.1	.6	48.0	138.0	32.	1.8	.454	.220	0.000			
MEAL 2	2423.	128.0	79.1	20.5	11.5	304.4	7.9	8385.	1.9	1.4	38.3	166.4	576.9	1786.	32.1	8.282	4.104	.371			

SUMS 2772. 137.3 98.0 33.8 12.3 340.3 8.8 9793. 2.0 1.6 39.6 196.7 642.2 1922. 33.6 8.650 4.521 .487

PERCENT OF CALORIES	MG
PROTEIN 19.82	FOLATE .256
FAT 31.83	B6 1.2
CARBOHYDRATE 49.11	B12+MCG 226.2
SUGARS 2.87	ZINC 198.3
P:S RATIO .36	MAGNESIUM 0.0
CAL:FOD RATIO .33	

NIACIN EQUIVALENTS = 65.1 MG.
 AA SCORE = 9776
 UTILIZABLE PROTEIN/GM. = 127.6 BASED UPON AA COMP. DI 75.1% OF THE-TOTAL PROTEIN.
 TOTAL ABSORPABLE IRON = 3.23 MG.

DAY 3

FOOD	CALORIES	PRO-	TEIN	TOTAL	SATI	FAT	CARBO-	FIBER	A	MIN	FLAVIN	NIACIN	VITAMIN	CALCIUM	PHOS-	IRON	500-	FOTA-	
(KCAL)	(GM)	(GM)	(GM)	(GM)	(GM)	(GM)	(GM)	(GM)	(IU)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(GM)	(GM)	
023129	100.	19.1	2.0	1.0	0.0	0.0	0.0	0.0	0.	0.0	.2	1.6	0.0	177.0	86.	1.6	.073	.009	.068
SMRICE	398.	8.2	2.3	.7	.9	82.2	0.0	0.0	0.	.3	.1	2.5	0.0	23.2	289.	3.8	.008	.318	0.000
018490	333.	6.9	1.8	0.0	0.0	71.6	.8	0.	.3	0.	.3	4.3	0.0	24.6	208.	1.5	.008	.198	0.000
010290	16.	.7	.0	0.0	0.0	3.7	2.2	0.	0.	.0	.0	1.8	3.5	24.	.2	.002	.063	0.000	
014150	9.	.4	.0	0.0	0.0	2.1	.3	500.	.0	.0	.0	.1	8.0	12.8	10.	.3	.001	.058	0.000
804947	240.	16.2	27.2	23.5	.5	0.0	0.0	0.0	0.	0.0	0.0	0.0	0.0	0.0	0.	0.	0.000	0.000	0.000
101017	145.	16.2	7.9	0.0	0.0	2.5	.1	0.	.1	0.	.1	.5	60.6	214.	3.6	.008	0.000	0.000	
014122	16.	.6	.0	0.0	0.0	3.7	.3	0.	0.	0.	0.	4.3	11.5	15.	.2	.004	.067	0.000	
804047	240.	0.0	27.2	23.5	.5	0.0	0.0	0.0	0.	0.0	0.0	0.0	0.0	0.	0.	0.	0.000	0.000	0.000
MEAL 1	1498.	52.2	68.5	48.7	1.9	168.7	1.7	500.	.8	.4	11.8	14.5	268.1	823.	11.1	.096	.713	.068	
001811	35.	4.0	.3	0.0	0.0	6.5	.9	25.	.1	.1	.1	.9	7.5	21.3	60.	1.1	.005	.195	0.000
023300	65.	0.0	0.0	0.0	0.0	16.9	0.0	0.	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.	.000	.001	0.000
009871	38.	2.0	.4	0.0	0.0	1.8	20.	.1	.1	1.0	6.0	22.0	42.	1.2	.002	.300	.000	.000	
024060	8.	0.0	0.0	0.0	0.0	3.5	0.0	0.	0.0	0.0	0.0	0.0	3.6	5.4	.4	.001	.060	0.000	
010290	8.	.4	.0	0.0	0.0	1.8	.1	0.	0.	0.	.0	.9	1.7	12.	.1	.001	.032	0.000	
018702	464.	9.8	2.3	0.0	0.0	99.4	1.2	308.	.4	.1	5.5	0.0	46.8	285.	2.0	0.000	.273	0.000	
008461	70.	2.5	.8	0.0	0.0	16.2	.5	308.	.1	.1	1.1	6.9	2.3	69.	.5	0.000	.151	0.000	
MEAL 2	689.	18.7	3.8	0.0	0.0	152.6	4.5	353.	.7	.4	8.4	21.3	97.7	473.	5.2	.009	1.011	0.000	
009021	77.	5.9	.7	0.0	0.0	15.9	3.4	3175.	.2	.2	1.8	38.6	124.7	111.	1.6	.007	.445	0.000	
017450	460.	14.6	4.0	15.8	0.0	3.3	0.0	0.	.7	.2	4.1	0.0	10.0	162.	2.6	.748	.234	.062	
014121	8.	.3	.0	0.0	0.0	1.7	.1	8.	0.	0.	.0	2.0	5.4	7.	.1	.002	.031	0.000	
010290	8.	.4	.0	0.0	0.0	1.8	.1	0.	0.	0.	.0	.9	1.7	12.	.1	.001	.032	0.000	
020470	50.	5.8	2.6	1.4	0.0	4.	0.0	17.	.0	.1	5.0	0.0	32.2	74.	.9	.039	.034	.048	
019630	0.	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.0	0.0	7.0	2.	0.	1.066	.000	0.000	
018702	464.	9.8	2.3	0.0	0.0	99.4	1.2	0.	.4	.1	5.5	0.0	46.8	285.	2.0	0.000	.273	0.000	
014710	55.	.8	.1	0.0	0.0	14.0	1.3	2450.	.1	.1	.4	78.4	28.0	22.	.4	.004	.328	0.000	
MEAL 3	1122.	37.6	49.8	17.2	4.0	133.6	6.5	5650.	1.4	.6	12.4	119.9	255.8	675.	7.6	1.867	1.376	.110	

SUM 3310. 108.4 122.1 66.0 5.9 455.0 12.7 6503. 2.8 1.4 32.6 155.7 621.6 1970. 24.0 1.971 3.100 .178

PERCENT OF CALORIES	MG
PROTEIN 13.10	FOLATE .224
FAT 33.21	K4 1.6
CARBOHYDRATE 54.99	R12+MCG .3
SUGARS 3.09	ZINC 6.7
P:S RATIO .09	MAGNESIUM 0.0
CA:F04 RATIO .32	

NIACIN EQUIVALENTS = 49.1 MG.
 AA SCORE = .8134
 UTILIZABLE PROTEIN:GM.= 66.0 BASED UPON AA COMP. OF 74.9% OF THE TOTAL PROTEIN.
 TOTAL ABSORBABLE IRON= 1.46 MG.

CODE	NAME	WT (GM)	PRO (GM)	FAT (GM)	CHO (GM)	ASH (GM)	MOIST (GM)	HYDRAT (GM)	HAZEL (GM)	VITAMIN A (IU)	VITAMIN B1 (MG)	VITAMIN B2 (MG)	VITAMIN B6 (MG)	VITAMIN C (MG)	NIACIN (MG)	FE (MG)	ZN (MG)	Ca (MG)	P (MG)	MG	Na (MG)	KL (MG)	COOL (MG)
013026	183	19.3	11.1	3.0	9.0	6.0	4.0	430	.1	.2	5.8	0.0	185.0	274	2.1	.074	.420	.094					
022821	54	2.7	.5	0.0	0.0	11.5	1.2	2211	.1	.1	1.7	56.5	31.9	66	1.2	.007	.600	0.000					
014131	8	.7	.0	0.0	0.0	1.2	.1	8	.0	.0	.0	2.0	5.4	7	.1	.002	.031	0.000					
013106	147	4.6	1.3	.1	.3	2.7	.1	0	.0	.0	.4	0.0	21.5	43	.4	.090	.043	.002					
MEAL 1	390.6	26.9	13.1	3.3	.4	41.0	1.4	2649	.3	.4	8.0	58.5	243.8	390	3.8	.373	1.076	.096					
016590	112	19.0	3.4	1.0	0.0	0.0	0.0	100	.1	.1	1.9	0.0	54.0	250	.6	.063	.287	.055					
018440	70	1.2	.1	0.0	0.0	4.1	.8	12	.0	.0	.3	29.9	34.5	36	1.2	.021	.370	0.000					
024060	17	0.0	0.0	0.0	0.0	7.1	0.0	0	0.0	0.0	0.0	0.0	7.2	11	.7	.001	.120	0.000					
022821	27	1.4	.2	0.0	0.0	5.8	.6	11061	.1	.0	.9	28.3	16.0	33	.6	.004	.300	0.000					
014170	14	.8	.2	0.0	0.0	2.8	.7	2000	.0	.0	.3	25.5	28.0	20	1.1	.003	.116	0.000					
013671	33	3.1	.6	0.0	0.0	5.6	1.3	8120	.1	.2	.8	67.2	193.2	45	2.5	.025	.308	0.000					
014710	55	.8	.1	0.0	0.0	14.0	1.3	2450	.1	.1	.4	78.4	28.0	22	.4	.004	.328	0.000					
018702	424	9.8	2.3	0.0	0.0	99.4	1.2	0	.4	.1	5.5	0.0	46.8	285	2.0	0.000	.273	0.000					
010350	28	.7	.5	0.0	0.0	5.0	.6	5	.0	.0	.4	2.1	12.1	19	1.1	.003	.139	0.000					
022290	135	0.0	0.0	0.0	0.0	34.9	0.0	0	.0	.0	.1	0.0	30.8	7	1.2	.011	.125	0.000					
MEAL 2	901	36.7	7.5	1.0	0.0	178.7	6.3	13792	.8	.6	10.6	231.4	450.6	727	11.4	.135	2.365	.055					
014430	158	20.2	4.3	0.0	0.0	8.2	.2	744	.3	.4	6.0	72.0	225.6	343	13.2	.175	.290	.120					
014170	7	.4	.1	0.0	0.0	1.4	.3	1000	.0	.0	.2	12.8	14.0	10	.6	.001	.058	0.000					
014122	16	.6	.0	0.0	0.0	3.7	0	0	.0	.0	.1	4.3	11.5	15	.2	.004	.067	0.000					
024060	17	0.0	0.0	0.0	0.0	7.1	0	0	0.0	0.0	0.0	0.0	7.2	11	.7	.001	.120	0.000					
020270	0	0.0	.3	-0.0	0.0	0.0	.7	0	0.0	0.0	0.0	0.0	567.0	22	6.3	0.000	0.000	0.000					
022290	135	0.0	0.0	0.0	0.0	34.9	0.0	0	.0	.0	.1	0.0	30.8	7	1.2	.011	.125	0.000					
021970	22	1.6	.1	0.0	0.0	4.7	.8	416	.1	.1	1.3	24.7	36.4	38	.5	.001	.263	0.000					
018940	65	12.2	1.2	0.0	0.0	.8	0.0	0	.4	.7	.7	7.0	15.0	20	3	.037	.066	.180					
014121	8	.3	.0	0.0	0.0	1.7	.1	8	.0	.0	.0	2.0	5.4	7	.1	.002	.031	0.000					
010290	8	.4	.0	0.0	0.0	1.8	.1	12	.0	.0	.9	1.7	12	.1	.001	.032	0.000						
804047	240	0.0	27.2	23.5	.5	0.0	0.0	0	.0	0.0	0.0	0.0	0.0	0	.0	0.000	0.000	0.000					
018702	464	9.8	2.3	0.0	0.0	99.4	1.2	0	.4	.1	5.5	0.0	46.8	285	2.0	0.000	.273	0.000					
MEAL 3	1141	45.4	35.6	23.5	.5	163.7	3.7	2160	.9	1.1	13.8	123.6	961.4	951	25.2	.234	1.324	.300					

***SUM** 2431 108.9 56.3 27.9 .9 383.5 11.5 18610. 1.9 2.0 32.4 413.5 1655.9 2068. 40.4 .742 4.785 .451

PERCENT OF CALORIES

PROTEIN	17.92	MG
FAT	20.82	4.367
CARBOHYDRATE	63.09	1.2
SUGARS	17.88	55.9
FIBER	0.0	7.4

CA:FO4 RATIO .80

NIACIN EQUIVALENTS = 47.4 MG.

A4 SCORE = .8934

UTILIZABLE PROTEIN+GR = 66.3 BASED UPON AA COMP. OF 68.1% OF THE TOTAL PROTEIN.

FOOD	CALORIES	KCO	FAT	SAT	FOLY	CRUDE	THIA	THIA	BIOT	NIACIN	VITAMIN	CALCIUM	PHOS	IRON	SOJ	FOTA	CHOL	
(KCAL)	(GM)	(GM)	(GM)	(GM)	(GM)	(GM)	(IU)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	
007920	605.	7.7	59.8	51.4	0.0	0.0	0.0	0.0	1.9	4.8	38.4	240.	3.8	.060	.353	0.000		
022290	108.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.7	6.	1.0	.009	.100	0.000		
022473	208.	3.7	1.4	0.0	0.0	1.8	1225.	.2	1.2	46.9	65.3	96.	1.4	.020	.496	0.000		
001410	81.	1.0	.2	0.0	0.0	2.1	181.	.0	.7	9.5	7.6	25.	.7	.001	.352	0.000		
004480	145.	4.6	1.5	.3	.4	27.7	.1	0.0	.4	0.0	21.5	43.	.4	.290	.045	.002		
MEAL 1	1147.	17.0	62.9	51.7	.4	135.2	2.4	1406.	.4	2	4.3	61.3	157.5	409.	7.3	.380	1.346	.002
011260	472.	45.1	30.8	5.9	5.9	0.0	0.0	249.	.0	.4	8.2	6.8	333.4	674.	4.1	.168	.953	.220
000110	82.	7.9	1.1	0.0	0.0	2.9	13835.	.2	.4	3.2	181.4	605.6	152.	0.8	.161	.932	0.000	
024070	7.	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.001	.009	0.000	
010350	13.	.4	.3	0.0	0.0	2.5	.3	3.	.0	.2	1.1	9.	.6	.002	.070	0.000		
022821	54.	2.7	.5	0.0	0.0	11.5	1.2	2211.	.1	1.7	56.5	31.9	66.	1.2	.007	.600	0.000	
013500	56.	1.4	.5	0.0	0.0	13.1	1.0	68.	.1	1.0	39.1	23.8	27.	.7	.020	.477	0.000	
020470	63.	7.3	3.3	1.8	0.0	0.0	21.	0.0	.6	0.0	40.3	92.	1.1	.049	.043	.060		
019630	0.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-7.0	2.	1.0	.064	.000	0.000		
018702	464.	9.8	2.3	0.0	0.0	99.4	1.2	0.	.4	.1	5.5	0.0	285.	2.0	0.000	.273	0.000	
MEAL 2	1211.	74.5	38.9	7.6	5.9	144.9	6.7	16387.	.8	1.1	20.4	284.9	1094.6	1307.	18.4	1.474	3.305	.280
008441	120.	4.4	1.2	0.0	0.0	27.6	.9	499.	.2	.1	2.1	15.0	3.7	138.	.9	0.000	.349	0.000
020420	91.	18.1	.8	0.0	0.0	1.5	0.0	0.	.0	.0	3.2	0.0	63.0	166.	1.6	.140	.220	.150
014121	23.	.3	.0	0.0	0.0	1.7	.1	8.	.0	.0	0.0	0.0	5.4	7.	.1	.002	.031	0.000
006190	23.	.6	.1	0.0	0.0	5.3	.6	6050.	.0	.0	3.4	4.4	20.4	20.	.4	.026	.188	0.000
010290	8.	.4	.0	0.0	0.0	1.8	.1	0.	.0	.0	.9	1.7	12.	.1	.001	.033	0.000	
018702	464.	9.8	2.3	0.0	0.0	99.4	1.2	0.	.4	.1	5.5	0.0	46.8	285.	2.0	0.000	.273	0.000
013160	109.	1.2	.7	0.0	0.0	27.7	1.5	7920.	.1	1.1	1.8	57.8	16.5	21.	.7	.012	.312	0.000
009871	38.	2.0	.4	0.0	0.0	8.2	1.8	20.	.1	.1	1.0	6.0	22.0	42.	1.2	.002	.300	0.000
024060	8.	0.0	0.0	0.0	0.0	3.5	0.0	0.	0.0	0.0	3.6	5.	1.2	.001	.060	0.000		
021560	12.	1.0	.2	0.0	0.0	1.7	0.0	0.	.0	.0	.1	0.0	14.8	19.	.9	1.319	.066	0.000
MEAL 3	881.	37.7	5.8	0.0	0.0	178.6	6.1	14497.	.8	.5	14.1	86.0	197.9	716.	8.1	1.502	1.831	.150

SUMS 3239. 129.1 107.6 59.3 6.3 458.7 15.2 32290. 2.0 1.8 36.7 432.2 1450.1 2432. 33.8 3.355 6.462 432

PERCENT-OF-CALORIES	MG
PROTEIN	15.96
FAT	29.89
BIOTIN	2.1
CARBONHYDRATE	56.64
SUGARS	15.02
ZINC	239.8
P:S RATIO	.11
MAGNESIUM	0.0
CA:PO4 RATIO	.60

NIACIN EQUIVALENTS = 58.2 MG.
 AA SCORE = .7627
 UTILIZABLE PROTEIN:GM.= 108.1 BASED UPON AA COMP. OF 86.2% OF THE TOTAL PROTEIN.

DATE: 6

FOOD	CALORIES	PKO- TEIN (MG)	FAT TOTAL (GM)	SATI (GM)	POLY (GM)	FIBER (GM)	CRUDE (GM)	VITAMIN A (IU)	THIA- MIN (MG)	RIBO- FLAVIN (MG)	NIACIN (MG)	VITAMIN C (MG)	CALCIUM (MG)	PHOS- PHORUS (MG)	IRON (MG)	SODI- UM (MG)	CHOL- ESTER (MG)	
MEAL 1	880.	38.7	44.5	23.5	.5	83.7	2.1	15050.	.5	.2	2.8	37.5	205.3	605.	9.3	.038	.598	0.000
009021	77.	5.9	.7	0.0	0.0	15.9	3.9	3175.	.2	.2	1.8	38.6	124.7	111.	1.6	.007	.445	0.000
020420	91.	18.1	.8	0.0	0.0	1.5	0.0	0.	.0	.0	3.2	0.0	63.0	166.	1.6	.140	.220	.150
804047	240.	0.0	27.2	23.5	.5	0.0	0.0	0.	0.0	0.0	0.0	0.0	0.0	0.	0.	0.000	0.000	0.000
020470	50.	5.8	2.6	1.4	0.0	.4	0.0	17.	.0	.1	.5	0.0	32.2	74.	.9	.039	.034	.048
019630	0.	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.0	0.0	7.0	2.	0.	1.066	.000	0.000
018702	464.	9.8	2.3	0.0	0.0	99.4	1.2	0.	.4	.1	5.5	0.0	46.8	285.	2.0	0.000	.273	0.000
015510	129.	1.2	.7	0.0	0.0	33.1	2.7	4553.	.1	.0	.2	18.5	10.1	44.	.5	.010	.292	0.000
MEAL 2	1052.	40.7	34.3	24.9	.5	150.3	7.7	7745.	.6	.4	11.1	57.0	283.8	681.	6.5	1.262	1.264	.198
013060	382.	38.0	24.4	8.0	0.0	0.0	0.0	900.	.3	.7	16.4	6.0	10.0	478.	2.0	.148	.840	.190
NAIT0	49.	4.2	2.6	.4	1.5	3.2	.6	0.	.0	.1	.3	0.0	23.7	49.	.8	.003	.039	0.000
024070	7.	0.0	0.0	0.0	0.0	3.0	0.0	0.	0.0	0.0	0.0	0.0	0.0	0.	0.	0.001	.009	0.000
010350	13.	.4	.3	0.0	0.0	21.5	.3	3.	.0	.2	1.1	6.1	6.1	9.	.6	.002	.070	0.000
021560	3.	.3	.1	0.0	0.0	.4	0.0	0.	0.0	0.0	0.0	0.0	3.7	5.	.2	.330	.016	0.000
804047	240.	0.0	27.2	23.5	.5	0.0	0.0	0.	0.0	0.0	0.0	0.0	0.0	0.	0.	0.000	0.000	0.000
018702	464.	9.8	2.3	0.0	0.0	99.4	1.2	0.	.4	.1	5.5	0.0	46.8	285.	2.0	0.000	.273	0.000
MEAL 3	1159.	52.6	56.8	31.9	2.0	108.6	2.1	903.	.7	.9	22.3	7.1	90.2	826.	5.6	.483	1.247	.190

##SUM## 3091. 132.1 135.6 80.3 3.0 342.6 11.9 23698. 1.8 1.5 36.3 101.6 579.3 2111 21.4 1.763 3.109 388

PERCENT OF CALORIES	MG
PROTEIN	17.09
FAT	39.48
CARBOHYDRATE	44.33
SUGARS	4.31
F:IS RATIO	.04
CA:FO4 RATIO	.27

NIACIN EQUIVALENTS = 62.7 MO.
AA SCORE = .9055
UTILIZABLE PROTEIN, GM. = 114.0 BASED UPON AA COMP. OF 95.3% OF THE TOTAL PROTEIN.
TOTAL ARSORABLE IRON = 1.39 MG.

SUBJECT: 37
DATE:

FOOD	ENERGY KCAL	PRO- TEIN GM	TOTAL G	FAT G	SAT G	POLY G	CHO- LE- STEROL MG	VIT A	VIT B1	VIT B2	VIT B6	VIT B12	VIT C	VIT E	VIT K	NIAC- IN MG	RIBO- FLAVIN MG	IRON MG	PHOS- PHORUS MG	CAL- CIUM MG	SODI- UM MG	POTAS- SIUM MG	CHOL- ESTEROL MG	
BOILED CORN	137.	5.3	1.7	0.0	0.0	0.0	31.0	6.0	.2	.2	2.1	11.6	5.0	1.2	1.2	0.0	0.0	0.0	147.0	0.0	0.0	0.0	272.0	0.0
HERBAL TEA	7.0	0.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MEAL 1	246.0	15.7	2.2	0.0	0.0	0.0	58.0	6.0	0.3	0.3	3.2	11.6	5.0	4.2	4.2	0.0	0.0	0.0	290.0	0.0	10.0	756.0	0.0	
RAW RADISH	22.0	1.2	0.1	0.0	0.0	0.0	4.1	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.9	2.0	21.0	376.0	0.0	
RAW YUSTARD SEEDS	31.0	1.3	0.0	0.0	0.0	0.0	1.7	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	3.0	428.0	0.0	
RAW TOMATO	8.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
RAW WHEAT	367.0	15.0	2.5	0.0	0.0	0.0	6.2	11.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	229.0	0.0	
STILL	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
STILLED VINEGAR	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
CANNED SHRIMP	50.0	5.8	2.6	1.4	0.0	0.0	5.4	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.0	48.0	
SALT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
COOKED BROWN RICE	444.0	9.4	3.3	0.0	0.0	0.0	9.4	0.0	0.4	0.4	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	106.0	0.0	273.0	0.0	
MEAL 2	935.0	59.9	33.3	9.4	3.0	121.3	106.0	0.0	0.9	1.2	24.6	182.1	30.0	97.3	10.2	131.9	0.0	0.0	300.0	0.0	2304.0	2304.0	0.0	
RAW GARLIC	8.0	0.4	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
BRAISED BEEF	176.0	23.1	8.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
KIDNEY	96.0	12.5	2.3	1.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
BEEF LUNGS	180.0	10.3	2.4	0.0	0.0	0.0	30.5	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
CHICKPEAS	13.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
SOY SAUCE	14.0	1.6	2.9	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
COOKED BROWN RICE	49.0	3.0	2.3	0.0	0.0	0.0	9.4	0.0	0.4	0.4	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	106.0	0.0	273.0	0.0	
RAW MUSTARD SEEDS	35.0	3.4	0.0	0.0	0.0	0.0	0.0	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MEAL 3	1108.0	81.1	26.0	3.3	0.0	0.0	141.6	87.8	1.6	4.7	21.4	113.4	41.0	113.0	25.6	578.0	0.0	0.0	410.0	0.0	2304.0	2304.0	0.0	

DAILY TOTALS	2389.0	156.6	56.5	12.7	0.0	320.9	193.4	2.9	6.1	49.2	307.0	824.0	2392.0	40.2	1903.0	4627.0	951.0
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PERCENT OF	RECORD	REC	INTAKE	REC
PROTEIN	26.22	12.0	75.9	0.0
FAT	21.29	30.0	224.2	0.0
CARBOHYDRATE	53.72	58.0	0.0	0.0
SUGARS	1.05	0.0	0.0	0.0
P:S RATIO	0.07	1.0	3.1	0.0
MARK RATIO	0.41	1.0	3.1	0.0
CARP RATIO	0.34	1.0	3.1	0.0
CHOLESTEROL INDEX (HEGSTER/ZILVERSHIT)	0.296	1.0	735.3	0.0
CRUDE FIBER	12.5	0.0	0.0	0.0

OVERALL PROTEIN EFFICIENCY = 85.99
 UTILIZABLE PROTEIN MG. = 113.7 BASED UPON AA COMP. OF 84.4% OF THE TOTAL PROTEIN.
 TOTAL ABSORBABLE IRON (ROAI) = 3.08 MG.
 TOTAL ABSORBABLE IRON (MOMSEN, 1982) = 4.01 MG.
 CARBOGENIC POTENTIAL = 0 SUCROSE EXPOSURES.

SUBJECT - DA
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FOOD	CALORIES	KRO- TEIN (MG)	FAT (GM)	TOTAL (GM)	SATD (GM)	POLY (GM)	FOLY (GM)	CARRU- HYDRATE (GM)	LNUDE (GM)	FIBER (GM)	VITAMIN A (IU)	THIA- MIN (MG)	RIBU- FLAVIN (MG)	KIPU- FLAVIN (MG)	NIACIN (MG)	VITAMIN C (MG)	CALCIUM (MG)	PHOS- PHORUS (MG)	IRON (MG)	SODI- UM (MG)	POTAS- SIUM (MG)	CHOL- ESTER (MG)	
																							MEAL 1	MEAL 2	MEAL 3
SWT161C	265	5.4	1.6	1.6	.4	.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.7	16.1	2.5	0.008	0.13	0.000	
007540	225	2.3	22.9	19.7	19.7	0.0	0.0	6.1	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	62.1	1.1	0.015	0.166	0.060	
022390	108	0.0	0.0	0.0	0.0	0.0	0.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.7	6.1	1.0	0.009	0.100	0.000	
009740	47	3.7	3.3	1.1	1.1	.2	0.0	3.3	0.0	0.0	34.0	0.0	0.0	0.0	0.0	0.0	15.6	59.1	17	0.035	0.037	0.145	
019630	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	2.1	0	1.066	0.000	0.000	
MEAL 1	645	11.4	27.8	21.2	.9	91.2	3.2	340.1	.3	.2	4.0	2.0	71.3	144.1	5.2	1.133	.516	.145					
007110	127	11.7	7.6	2.4	1.5	2.0	0.0	153.1	0.0	.2	2.5	0.0	5.3	102.1	1.2	.039	.145	.040					
007170	82	8.8	4.5	1.4	.9	.8	0.0	76.1	0.0	.1	2.1	0.0	3.1	72.1	.6	.027	.101	.028					
007920	605	7.7	59.8	51.4	0.0	12.5	0.0	0.0	.1	0.0	1.9	4.8	38.4	240.1	3.8	.060	.353	0.000					
010350	13	1.4	.3	0.0	0.0	0.0	0.0	2.5	.3	3.1	0.0	.2	1.1	6.1	.9	.002	.070	0.000					
021910	25	1.4	.1	0.0	0.0	5.5	.8	533.1	.1	1.1	1.3	28.6	36.4	38.1	.5	.001	.263	0.000					
014710	55	.8	.1	0.0	0.0	14.0	1.3	2450.1	.1	1.1	.4	78.4	28.0	22.1	.4	.004	.328	0.000					
018702	464	9.8	2.3	0.0	0.0	99.4	1.2	109.1	.4	.1	5.5	0.0	46.8	285.1	2.0	0.000	.273	0.000					
MEAL 2	1369	40.6	74.8	55.1	2.5	136.7	3.5	3215.1	.6	.5	13.9	112.9	164.0	769.1	9.1	.132	1.531	.068					
013630	66	9.6	1.4	0.0	0.0	3.1	.1	100.1	.2	.2	1.3	0.0	88.0	236.1	3.4	.289	.315	.050					
005132	29	1.6	.3	0.0	0.0	6.2	1.2	189.1	.1	.1	.4	47.9	63.8	29.1	.4	.363	.236	0.000					
017740	281	19.5	21.8	7.9	2.0	0.0	0.0	0.0	.5	.2	3.5	0.0	8.5	157.1	2.6	.697	.218	.076					
014121	8	.3	.0	0.0	0.0	1.7	.1	8.1	.8	.0	.0	2.0	5.4	7.1	.1	.002	.031	0.000					
022821	27	1.4	.2	0.0	0.0	5.8	.6	1106.1	.1	.0	.9	28.3	16.0	33.1	.6	.004	.300	0.000					
018702	464	9.8	2.3	0.0	0.0	99.4	1.2	109.1	.4	.1	5.5	0.0	46.8	285.1	2.0	0.000	.273	0.000					
016110	81	.6	.3	0.0	0.0	21.2	.6	109.1	.1	.0	.3	26.4	26.4	12.1	.8	.002	.226	0.000					
MEAL 3	955	42.7	26.5	7.9	2.0	137.5	3.8	1511.1	1.2	.6	11.9	104.5	254.8	760.1	9.8	1.356	1.600	.126					
***SUM**	2969	94.7	129.0	84.2	5.3	365.4	10.5	5066.1	2.1	1.3	29.7	219.3	490.1	1672.1	24.1	2.621	3.647	.338					

PERCENT OF CALORIES

PROTEIN	12.75	FOLATE	.239
FAT	39.11	R6	1.2
CARBOHYDRATE	49.23	R12+MCG	.8
SUGARS	9.50	ZINC	15.6
P15 RATIO	.06	MAGNESIUM	0.0
CA:FOD RATIO	.29		

NIACIN EQUIVALENTS = 44.8 MG.
AA SCORE = .9422
UTILIZABLE PROTEIN, GM = 75.4 BASED UPON AA COMP. OF 84.5% OF THE TOTAL PROTEIN.
TOTAL ABSORBABLE IRON = 1.66 MG.

INDEX OF NUTRITIONAL QUALITY (INQ)

$$\text{INQ} = \frac{\text{amount of nutrient consumed}}{\text{calories consumed}} \div \frac{\text{requirement for that nutrient}}{\text{caloric requirement (2500 cal)}} = 1.0$$

Index of Nutritional Quality equals 1.0. Based on the RDA (recommended daily dietary allowance), if INQ is less than 1.0 the nutrient requirement is not met. If INQ is more than 1.0 the nutrient intake is sufficient or excessive.

The figures needed for the above formula are given in the "Sum" column of the Analyze Print-out in the previous section. The "requirement for nutrient ---" is predetermined and published in resource materials that give the recommended dietary daily allowance (RDA). This quantity may vary depending on the country source and the research conducted.

There are highly sensitive and perfectly coordinated processes that maintain a constant state-- homeostasis-- within the body regardless of most extremes of the environment. Adjustments can be made for lack of food, severe climatic conditions, and other abuses to the body unless the insult extends far beyond the body's regulatory capacity (Wilson, 1979).

Homeostasis is the body's check and balance system, the state of equilibrium. RDAs are set at levels that exceed the requirements of most nutrients. The allowances state very clearly that intakes below the recommended allowances for a nutrient are not necessarily inadequate (Simko, 1984). Among the tropical hard-working population, energy (calories) are more efficiently utilized for productive work. A sedentary individual on the otherhand would utilize the same energy for creating heat for the body. About 35 percent of the calories from food are used for keeping the body warm.

Where INQ is less than 1.0 the nutrient requirement of an individual is not necessarily not met. The body compensates for this lack. It is unwise but possible to maintain the body at the reduced weight on a diet of approximately 50 percent the energy value of the previous food intake, a fortunate physiological adjustment for the unfortunate undernourished. Within limits the body is

able to adjust to an inadequate energy intake by employing mechanisms for its conservation. It is not unlike the way one individual develops a tolerance for increasing doses of toxin such as alcohol or tobacco, up to that level that would prove dangerous or fatal to the unoriented. The body develops a level of tolerance and the anti-toxin secretions of the body are increased to a higher level of activity until it reaches its breaking point. The body's system struggles to remain well despite deficiencies of good things and excesses of bad things.

The above may explain why, despite latent nutritional deficiencies, Oppressed Country population survive and function.

INQ Explanation

An analysis of the following eight days of the Index of Nutritional Quality tells the non-nutritionist elementary school teacher a few things about the hypothetical subject's food intake and eating habits. Based on the formula, a cursory glance at all eight indexes show that the meals provided almost twice of the protein needs; an excess of Vitamins A, C and phosphorus; sufficient thiamine, riboflavin, calcium and iron. The days show peaks and valleys of Vitamins B6, B12, zinc and folate.

This analysis shows that a survival meal (readily

available indigenous foods) in a tropical, coastal, secondary city in the Philippines can provide a balanced nutrient intake. The only hindrance is lack of education, and complete ignorance of nutrient contents of common foods. Education is needed to identify the indigenous foods that are regularly available and will provide the nutrients required.

Where these Workshops and nutrient studies are to be held, typewriters are not expected to be available. Therefore these forms are handwritten, and are presented as such in this study.

INDEX OF NUTRITIONAL QUALITY (INQ)

PROTEIN	
$\frac{135.9}{3549} = .0382$	
$\frac{55}{2500} = .022$	1.740
VITAMIN A	
$\frac{9675}{3549} = 2.726$	
$\frac{3200}{2500} = 1.28$	2.12
THIAMINE	
$\frac{1.9}{3549} = .000535$	
$\frac{1.4}{2500} = .00056$	.955
NIACIN	
$\frac{58.5}{3549} = .0164$	
$\frac{18}{2500} = .0072$	2.27
VITAMIN C	
$\frac{177.4}{3549} = .0499$	
$\frac{60}{2500} = .024$	2.079
CALCIUM	
$\frac{7299}{3549} = 2.056$	
$\frac{800}{2500} = .32$	6.42
PHOSPHORUS	
$\frac{2202}{3549} = .6204$	
$\frac{800}{2500} = .32$	1.938

RIBOFLAVIN	
$\frac{1.4}{3549} = .000396$	
$\frac{1.6}{2500} = .00064$	.618
IRON	
$\frac{28.3}{3549} = .00797$	
$\frac{10}{2500} = .004$	1.992
FOLATE	
$\frac{.289}{3549} = .000081$	
$\frac{.4}{2500} = .00016$	.506
VITAMIN B6	
$\frac{1.7}{3549} = .000479$	
$\frac{2.2}{2500} = .00088$	.544
VITAMIN B12	
$\frac{2.2}{3549} = .000619$	
$\frac{3}{2500} = .0012$	.515
ZINC	
$\frac{202.9}{3549} = .0571$	
$\frac{15}{2500} = .006$	9.516
MAGNESIUM	
$\frac{70}{3549} = .0197$	
$\frac{350}{2500} = .14$	.14

POLYUNSATURATE : SATURATE RATIO
.03

INDEX OF NUTRITIONAL QUALITY (INQ)

PROTEIN		RIBOFLAVIN	
$\frac{137.3}{2772} = .0495$		$\frac{1.6}{2772} = .000577$	
$\frac{55}{2500} = .022$	= 2.25	$\frac{1.6}{2500} = .00064$	.901
VITAMIN A		IRON	
$\frac{9793}{2772} = 3.539$		$\frac{33.6}{2772} = .012$	
$\frac{3200}{2500} = 1.28$	= 2.76	$\frac{10}{2500} = .004$	3.03
THIAMINE		FOLATE	
$\frac{2}{2772} = .000721$		$\frac{.256}{2772} = .000092$	
$\frac{1.4}{2500} = .00056$	= 1.28	$\frac{.4}{2500} = .00016$	.576
NIACIN		VITAMIN B6	
$\frac{65.1}{2772} = .0234$		$\frac{1.2}{2772} = .00043$	
$\frac{18}{2500} = .0072$	= 3.26	$\frac{2.2}{2500} = .00088$	.492
VITAMIN C		VITAMIN B12	
$\frac{196.7}{2772} = .0709$		$\frac{226.2}{2772} = .0816$	
$\frac{60}{2500} = .024$	= 2.9	$\frac{3}{2500} = .0012$	68.0
CALCIUM		ZINC	
$\frac{642.2}{2772} = .231$		$\frac{198.3}{2772} = .0715$	
$\frac{800}{2500} = .32$	= 1.158	$\frac{15}{2500} = .006$	11.92
PHOSPHORUS		MAGNESIUM	
$\frac{1922}{2772} = .693$		$\frac{0.0}{2772} = 0.0$	
$\frac{800}{2500} = .32$	= 2.166	$\frac{350}{2500} = .14$	0.0
		POLYUNSATURATE : SATURATE RATIO	
		<u>.36</u>	

INDEX OF NUTRITIONAL QUALITY (INQ)

PROTEIN	
$\frac{108.4}{3310} = .0327$	
$\frac{55}{2500} = .022$	1.49
VITAMIN A	
$\frac{6503}{3310} = 1.965$	
$\frac{3200}{2500} = 1.28$	1.53
THIAMINE	
$\frac{2.8}{3310} = .00084$	
$\frac{1.4}{2500} = .00056$	1.51
NIACIN	
$\frac{48.1}{3310} = .0145$	
$\frac{18}{2500} = .0072$	2.02
VITAMIN C	
$\frac{155.7}{3310} = .047$	
$\frac{60}{2500} = .024$	1.96
CALCIUM	
$\frac{621.6}{3310} = .188$	
$\frac{800}{2500} = .32$	.587
PHOSPHORUS	
$\frac{1970}{3310} = .595$	
$\frac{800}{2500} = .32$	1.86

RIBOFLAVIN	
$\frac{1.4}{3310} = .00042$	
$\frac{1.6}{2500} = .00064$	.661
IRON	
$\frac{24.0}{3310} = .0073$	
$\frac{10}{2500} = .004$	1.81
FOLATE	
$\frac{.224}{3310} = .000068$	
$\frac{.4}{2500} = .00016$	.423
VITAMIN B6	
$\frac{1.6}{3310} = .00048$	
$\frac{2.2}{2500} = .00088$	.549
VITAMIN B12	
$\frac{.3}{3310} = .00009$	
$\frac{3}{2500} = .0012$	.0755
ZINC	
$\frac{6.7}{3310} = .00202$	
$\frac{15}{2500} = .006$	.337
MAGNESIUM	
$\frac{0.0}{3310} = 0.0$	
$\frac{350}{2500} = .14$	0.0

POLYUNSATURATE : SATURATE RATIO

.09

INDEX OF NUTRITIONAL QUALITY (INQ)

PROTEIN		RIBOFLAVIN	
$\frac{108.9}{2431} = .0448$		$\frac{2}{2431} = .00082$	
$\frac{55}{2500} = .022$	$= 2.036$	$\frac{1.6}{2500} = .00064$	$= 1.29$
VITAMIN A		IRON	
$\frac{18610}{2431} = 7.655$		$\frac{40.4}{2431} = .0166$	
$\frac{3200}{2500} = 1.28$	$= 5.98$	$\frac{10}{2500} = .004$	$= 4.15$
THIAMINE		FOLATE	
$\frac{1.9}{2431} = .00078$		$\frac{.367}{2431} = .00015$	
$\frac{1.4}{2500} = .00056$	$= 1.396$	$\frac{.4}{2500} = .00016$	$= .943$
NIACIN		VITAMIN B6	
$\frac{47.4}{2431} = .0195$		$\frac{1.2}{2431} = .00049$	
$\frac{18}{2500} = .0072$	$= 2.71$	$\frac{2.2}{2500} = .00088$	$= .561$
VITAMIN C		VITAMIN B12	
$\frac{413.5}{2431} = .170$		$\frac{55.9}{2431} = .0230$	
$\frac{60}{2500} = .024$	$= 7.09$	$\frac{3}{2500} = .0012$	$= 19.2$
CALCIUM		ZINC	
$\frac{1655.9}{2431} = .6812$		$\frac{7.4}{2431} = .003$	
$\frac{800}{2500} = .32$	$= 2.13$	$\frac{15}{2500} = .006$	$= .507$
PHOSPHORUS		MAGNESIUM	
$\frac{2068}{2431} = .8507$		$\frac{0.0}{2431} = 0.0$	
$\frac{800}{2500} = .32$	$= 2.66$	$\frac{350}{2500} = .14$	$= 0.0$

POLYUNSATURATE : SATURATE RATIO
.03

INDEX OF NUTRITIONAL QUALITY (INQ)

PROTEIN		RIBOFLAVIN	
$\frac{129.1}{3239} = .040$		$\frac{1.8}{3239} = .00056$	
$\frac{55}{2500} = .022$	$= 1.81$	$\frac{1.6}{2500} = .00064$	$.868$
VITAMIN A		IRON	
$\frac{32290}{3239} = 9.969$		$\frac{33.8}{3239} = .010$	
$\frac{3200}{2500} = 1.28$	$= 7.78$	$\frac{10}{2500} = .004$	2.61
THIAMINE		FOLATE	
$\frac{2}{3239} = .00061$		$\frac{.462}{3239} = .00014$	
$\frac{1.4}{2500} = .00056$	$= 1.08$	$\frac{.4}{2500} = .00016$	$.0891$
NIACIN		VITAMIN B6	
$\frac{58.2}{3239} = .01797$		$\frac{2.1}{3239} = .00065$	
$\frac{18}{2500} = .0072$	$= 2.50$	$\frac{2.2}{2500} = .00088$	$.767$
VITAMIN C		VITAMIN B12	
$\frac{432.2}{3239} = .133$		$\frac{19}{3239} = .00587$	
$\frac{60}{2500} = .024$	$= 5.56$	$\frac{3}{2500} = .0012$	4.89
CALCIUM		ZINC	
$\frac{1450.1}{3239} = .448$		$\frac{239.8}{3239} = .074$	
$\frac{800}{2500} = .32$	$= 1.40$	$\frac{15}{2500} = .006$	12.3
PHOSPHORUS		MAGNESIUM	
$\frac{2432}{3239} = .751$		$\frac{0.0}{3239} = 0.0$	
$\frac{800}{2500} = .32$	$= 2.35$	$\frac{350}{2500} = .14$	0.0

POLYUNSATURATE : SATURATE RATIO

.11

INDEX OF NUTRITIONAL QUALITY (INQ)

PROTEIN	
$\frac{132.1}{3091} = .0427$	
$\frac{55}{2500} = .022$	1.94
VITAMIN A	
$\frac{23698}{3091} = 7.67$	
$\frac{3200}{2500} = 1.28$	5.99
THIAMINE	
$\frac{1.8}{3091} = .00058$	
$\frac{1.4}{2500} = .00056$	1.04
NIACIN	
$\frac{62.7}{3091} = .0203$	
$\frac{18}{2500} = .0072$	2.82
VITAMIN C	
$\frac{101.6}{3091} = .0329$	
$\frac{60}{2500} = .024$	1.37
CALCIUM	
$\frac{579.3}{3091} = .1874$	
$\frac{800}{2500} = .32$	.586
PHOSPHORUS	
$\frac{2111}{3091} = .683$	
$\frac{800}{2500} = .32$	2.13

RIBOFLAVIN

$$\frac{1.5}{3091} = .00049$$

$$\frac{1.6}{2500} = .00064$$

IRON

$$\frac{21.4}{3091} = .00692$$

$$\frac{10}{2500} = .004$$

FOLATE

$$\frac{.199}{3091} = .000064$$

$$\frac{.4}{2500} = .00016$$

VITAMIN B6

$$\frac{1.5}{3091} = .00049$$

$$\frac{2.2}{2500} = .00088$$

VITAMIN B12

$$\frac{18.9}{3091} = .0061$$

$$\frac{3}{2500} = .0012$$

ZINC

$$\frac{6.6}{3091} = .00214$$

$$\frac{15}{2500} = .006$$

MAGNESIUM

$$\frac{0.0}{3091} = 0.0$$

$$\frac{350}{2500} = .14$$

POLYUNSATURATE : SATURATE RATIO

.04

INDEX OF NUTRITIONAL QUALITY (INQ)

PROTEIN		RIBOFLAVIN	
$\frac{156.6}{2449} = .064$		$\frac{6.1}{2449} = .0025$	
$\frac{55}{2500} = .022$	= 2.91	$\frac{1.6}{2500} = .00064$	= 3.91
VITAMIN A		IRON	
$\frac{19541}{2449} = 7.98$		$\frac{40.2}{2449} = .016$	
$\frac{3200}{2500} = 1.28$	= 6.23	$\frac{10}{2500} = .004$	= 4.00
THIAMINE		FOLATE	
$\frac{2.9}{2449} = .0012$		$\frac{.341}{2449} = .00014$	
$\frac{1.4}{2500} = .00056$	= 2.14	$\frac{.4}{2500} = .00016$	= .875
NIACIN		VITAMIN B6	
$\frac{49.2}{2449} = .0201$		$\frac{2.1}{2449} = .00086$	
$\frac{18}{2500} = .0072$	= 2.79	$\frac{2.2}{2500} = .00088$	= .977
VITAMIN C		VITAMIN B12	
$\frac{307.0}{2449} = .125$		$\frac{35.6}{2449} = .0145$	
$\frac{60}{2500} = .024$	= 5.21	$\frac{3}{2500} = .0012$	= 12.1
CALCIUM		ZINC	
$\frac{824}{2449} = .336$		$\frac{6.9}{2449} = .0028$	
$\frac{800}{2500} = .32$	= 1.05	$\frac{15}{2500} = .006$	= .467
PHOSPHORUS		MAGNESIUM	
$\frac{2392}{2449} = .977$		$\frac{0.0}{2449} = 0.0$	
$\frac{900}{2500} = .32$	= 3.05	$\frac{350}{2500} = .14$	= 0.0
		POLYUNSATURATE : SATURATE RATIO	
		<u>.08</u>	

INDEX OF NUTRITIONAL QUALITY (INQ)

PROTEIN	
$\frac{94.7}{2969} = .0319$	
$\frac{55}{2500} = .022$	1.45
VITAMIN A	
$\frac{5066}{2969} = 1.706$	
$\frac{3200}{2500} = 1.28$	1.33
THIAMINE	
$\frac{2.1}{2969} = .000707$	
$\frac{1.4}{2500} = .00056$	1.26
NIACIN	
$\frac{44.8}{2969} = .0151$	
$\frac{18}{2500} = .0072$	2.10
VITAMIN C	
$\frac{219.3}{2969} = .074$	
$\frac{60}{2500} = .024$	3.08
CALCIUM	
$\frac{490.1}{2969} = .165$	
$\frac{800}{2500} = .32$	.516
PHOSPHORUS	
$\frac{1672}{2969} = .563$	
$\frac{900}{2500} = .32$	1.76

RIBOFLAVIN

$$\frac{1.3}{2969} = .000438$$

$$= .684$$

$$\frac{1.6}{2500} = .00064$$

IRON

$$\frac{24.1}{2969} = .00812$$

$$= 2.03$$

$$\frac{10}{2500} = .004$$

FOLATE

$$\frac{.239}{2969} = .00008$$

$$= .50$$

$$\frac{.4}{2500} = .00016$$

VITAMIN B6

$$\frac{1.2}{2969} = .000404$$

$$= .459$$

$$\frac{2.2}{2500} = .00088$$

VITAMIN B12

$$\frac{.8}{2969} = .000269$$

$$= .225$$

$$\frac{3}{2500} = .0012$$

ZINC

$$\frac{15.6}{2969} = .00525$$

$$= .876$$

$$\frac{15}{2500} = .006$$

MAGNESIUM

$$\frac{0.0}{2969} = 0.0$$

$$= 0.0$$

$$\frac{350}{2500} = .14$$

POLYUNSATURATE : SATURATE RATIO

.06

C H A P T E R V

WORKSHOP

INDIGENOUS FOODS = BETTER HEALTH, BETTER ECONOMY

INDIGENOUS FOODS = BETTER HEALTH, BETTER ECONOMY
WORKSHOP

INTRODUCTION

This Teacher Training Workshop is a setting by which Filipino health education public elementary school teachers can come together to talk, learn and share. Paulo Freire's word for this process is dialogue. Dialogue is working through a series of levels to get into the heart of the matter, usually the heart of the problem. The heart is the reality. This Workshop is concerned with the reality that not enough has been written and taught on the economy of the dispossessed and impoverished population.

In Chapter I under the topic of Assumptions, is the issue on how elementary school health education teachers can be utilized as a resource on the subjects of food economics, and the changes in eating patterns of the poor. This Workshop is an instrument by which a health education elementary school teacher with the minimum of formal nutrition training can help create economic awareness, understanding of food values and better eating habits. This Workshop can be conducted in various localities in urban or rural Philippines. It can also be adapted to other Oppressed Countries.

The well-off are worrying about calories and weight gain, one reason being the Hollywood demand for slimness, and the other more sensible reason that being overweight may cause poor health. The subject of food and eating is therefore a bitter-sweet subject to this privileged population. To the impoverished and disenfranchised, they are lucky if they have anything to eat. The issues of nutrition awareness is moot. Or is it? In fact, a deprived ten-year old child, having been told by the school nurse that she is iron-deficient, where from she can get this nutrient. In the absence of a resident nutritionist with an RD after her name, a teacher can help the pupil understand a Nutrient Comparison Chart (Appendix A). These charts will guide and simply present to the learner which available foods have more of the nutrients required. These charts, used by RDs (registered dieticians) for decades, can be used by health teachers to show which has more magnesium and calcium, despite inhibitors, white rice or corn-on-the-cob; which has more calories, Vitamins B6 and C, despite inhibitors: sweet potato or white bread? An elementary school health education teacher must have an interest in this kind of information in order to pass it on to the victims of nutrient deficiency. The concern of this Workshop is to have this kind of knowledge available to the teacher in the absence of doctors, nurses and registered dieticians.

While the theme of the Workshop is "Eat Indigenous," the statement by itself is empty and ineffective. People just do not suddenly reject that which they have been systematically made accustomed to, and overnight reject that which they have been brainwashed by advertising to covet, such imported foods. Many seemingly unrelated activities in this Workshop all funnel down toward the value of indigenous foods. In addition, high level decisions about cutting food importation have to be implemented; myths on food production and consumption have to be exposed; the value of the local farmers have to be recognized and compensated; economics of food distribution have to be put in very simple terms to make the situation understandable to the average person. The issues are complex, but understandable. To say it is complex and leave the issues misunderstood is what allows the adversaries to succeed in destroying local farmers. The goal is the cultivation, popularization, acceptance and recognition of the values (nutritional and economic) of indigenous flora and fauna.

This Workshop will analyze the resources available to the impoverished population, foods that they plant or eat which they should not, and crops that they do not plant or do eat which they should. We will also discuss the myths that nothing can change a person's eating habits.

Too many rely on Western writers and reporters of current events on what is happening to the Filipino. But

these reporters have little concept of the Filipino's understanding, belief system, culture, customs, manners, language, psyche and problems. In this Workshop, the problems of these teachers and the rural people they are in touch with, will surface in their own words, their own voices. There is so much that can be shared.

Consumer advocates without vested interest in commercial food production and food exportation have their theory about the Oppressed Country poverty and hunger. Out to destroy these views are university lecturers, researchers and merchants in the payroll of commercial food producers and food exporters. This Workshop will analyze this situation; look into why the commercial food producers and exporters are propagating certain reasons as the root of Oppressed Country farm poverty and displacement, and examine why Western media appear to publicize the side of the exporters.

At the beginning of each weekend (presumably on a Friday) a large collection of hand-outs will be given for the next three days.

In making the lesson plans for the day, a time allotment schedule helped to give the needed emphasis to all topics--questions and answers, single recitations, discussions, readings, written critiques, and out-door activities. Initially, it would appear that too many materials and too many topics are being introduced in too

limited a time. But on analysis, it will become evident that the primary requirement is the simple, and quite speedy process of reading and even skimming through each material. This is a skill that almost all teachers have. It is for this reason that the readings are handed at least a day before discussions. The total available time in a given day will fall into segments which can either be expanded or contracted.

Each unit includes an Agenda for the day with suggested time allotment for each activity; Instructional Plan which is simply a reminder-list of topics for the day, hand-outs, materials and supplies needed for the day, activities, homeworks and references. The effectiveness of the workshop will depend on the Attendees' familiarity with the materials and subjects, and it is important that they are given the materials ahead of time. Hand-outs are given at the beginning of each weekend.

"Facilitator" and "Attendee" have been found to be the most functional and acceptable terms to use in referring to people involved in the Workshop. While both terms are morphologically classified as colloquialisms, both accurately describe function and roles. These terms have in fact been found acceptable in many national and international conferences and workshops.

Workshop Guidelines are handed out on the first day of the Workshop to specify Workshop rules, terminologies and abbreviations, and other details and questions that need to be clarified. Each unit hand-out ends with detailed description on Content Process and Activity Rationale. Content Process explains the What of each day: Lecture, exercise, topic, activity, time period. The Activity Rationale explains the Why of what is being done. For example, while the Content Process explains the movements in a Yoga exercise, the Activity Rationale states the need for a physical exercise in the middle of the morning, and the choice of yoga instead of, say, The Hollywood Jane Fonda Aerobics.

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In time, the Workshop Attendees will come up with how they see the problems to be and what the solutions are. They will teach each other. When they begin to help each other, they are into that process called self reliance. Part of the challenge of self reliance is the differences in strength and weaknesses. When a whole group of people come together who may or may not know each other, self reliance is recognizing the differences between these people. A group of strangers working together for a common cause is not necessarily expected to coalesce. They still have their great biases--classism, racism, anti-semitism, heterosexism. Sitting beside the harbinger of glum may be a perpetual optimist. This one common cause that brought them together is the only thing they have in common.

If now and then Attendees say things that have been said before, the Facilitator could say, yes, Paulo Freire said that too. Mahatma Gandhi would have agreed with you. Or, "There are statistics that will show you how correct you are." Or, someone at another workshop said so too. To share with them, they must be involved, drawn out. Otherwise the Attendee gets some semblance of knowledge but does not learn to think. In a very pragmatic, functional way, they might not even need the Facilitator. Just the fact that the Workshop can bring these people together and can conduct a two-weekend workshop is sufficient. Who said, "let me be the string that binds the bouquet"? The Facilitator's role could be to encourage the issues of concern, and have them run it. And the resulting workshop would be excellent. People become empowered when they participate with each other and draw out on each other's strengths.

What do the Attendees carry with them when they leave the Workshop? Everything they have listened to the past six days. They carry away with them their conclusions and analyses of the situations discussed. The Asians believe in the "trickle" or "ripple" effect. It is not necessary to commit the Attendees to a reunion or to account to each other and to the Facilitator what they have done or are doing with their newly acquired information. The issues of the Workshop are crucial; a matter of survival to too many.

All topics in this Workshop can be brought down into elementary school level. The simple terms will not carry all the theories, subtleties, nuances and gravity of the issues. But certainly a seven year old can understand the good points of breastfeeding, or the perils of getting a ten year old started with cigarette smoking.

The value of allowing every topic to trickle down to their elementary classes will be impressed on all Attendees. Any topic in the six days of the Workshop--famine, toxin in undercooked cassava, the value of the bran and germ of the grain, overuse of chemicals in crops--all these topics can be brought down even to the level of a second grade class. This is where the skills, resourcefulness and ingenuity of the teacher comes in. The extent, depth and breadth of the ripple and trickle effects of the Workshop are determined by the social consciousness, skill, and energy of the teacher.

The teacher is a beneficiary of any improvement in the economic situation. Public school teachers in the Philippines are the most exploited and poorly compensated among professionals. This lack of recognition has caused demoralization. There are those who are more passive than others. Then there are the Rosa Parks. (She is the Black

woman who sat in the front of the bus in Montgomery, Alabama. Hers was an active participation. Its effect reverberated all over the world.)

Martin Luther King said, "By protecting you I'm protecting myself."

UNIT I, HO# 1.

INDIGENOUS FOODS = BETTER HEALTH, BETTER ECONOMY

AGENDA

- 9:00 - 9:15 Registration. Hand-outs for Unit I.
- 9:15 - 9:30 Write personal data on an index card (hereafter referred to as card).
- 9:30 - 9:45 Waker-upper. Exercise.
- 9:45 - 10:00 Introductions.
- 10:00 - 10:20 Lecture: Changing People's Eating Habits.
- 10:20 - 10:45 Rest Period. (During break, think of one or two ideas on how you can change/improve the eating habits of someone close to you. Write your ideas on a card.)
- 10:45 - 11:15 Collect cards with ideas. Discuss ideas with entire group.
- 11:15 - 11:30 Silent reading of Politics of Food.
- 11:30 - 12:00 Break into 3 groups. Each group will select a Presenter. Each group will analyze the accuracy and applicability of the material based on their own experiences.
- 12:00 - 1:30 Lunch and Networking
- 1:30 - 3:00 Presenter from each group, based on the group's conclusion on Politics of Food accuracy and applicability to the Philippine situation.
- 3:00 - 3:30 Farmer Displacement (flow chart)
- 3:30 - 3:55 Hand-outs for the rest of the weekend. Three volunteers will jointly interpret to the group the understood message of Government, Not Drought Cause Hunger.
- 3:55 - 4:00 Homework: On card, one idea learned today that can be passed on to elementary school pupils.

UNIT I, HO # 2.

INSTRUCTIONAL PLAN

TOPICS

(Lecture) Changing People's Eating Habits
 Politics of Food
 Flow Chart - Farmer's Exodus

HAND-OUTS

Agenda - Unit I
 Instructional Plan I
 Hand-outs for Unit I-III
 Workshop Guildelines
 20 pcs. 5x7 index cards
 Yoga in Daily Life
 Yoga Exercise
 Farmer Exodus Flow Chart
 Politics of Food
 Governments, Not Draught Cause Hunger

HOMEWORK

On index card, one thing learned/heard today that can be passed on to elementary pupil.

MATERIALS

20 pcs. 5x7 index cards

ACTIVITIES

Introduction
 Exercise
 Silent reading
 Group discussion
 Analysis of Flow Chart

REFERENCES

Hansa, J. (1985) Yoga Exercise. Lecture at Smith College. Massachusetts, Fall.

Gottlieb, D. (1983) "Politics of Food." Valley Advocate. March 23.

Nielson, T. (1985) "Government, Not Drought Cause Hunger" Letter to the Editor, Daily Hampshire Gazette, July 18.

HO # 3.

INDIGENOUS FOODS = BETTER HEALTH, BETTER ECONOMY

HAND-OUTS FOR FIRST WEEKEND
UNITS I - III (THREE DAYS)

UNIT I

Agenda for Unit I
Instructional Plan I
Hand-outs for First Weekend
Workshop Guidelines
Yoga Exercise
Yoga in Daily Life
Farmer Exodus Flow Chart
Politics of Food
Government, Not Draught Cause Hunger
5x7 index cards

UNIT II

Agenda for Unit II
Instructional Plan II
Beans + Grain = Protein
Yoga Breathing
Cassava, "Ahm" and Infant Formula
Recipes with meat substitutes
Capitol Hill's Soybean Party
Multinational Firms in the Philippines

UNIT III

Agenda for Unit III
Instructional Plan III
Green Revolution Flow Chart
Circle of Poison
Do IRRI seeds sabotage the national
economy and security?
Food Diary Forms
Green Revolution Puzzle
Circle of Poison
Drafting Paper for Map

GUIDELINES, HO# 4.

INDIGENOUS FOODS = BETTER HEALTH, BETTER ECONOMY

WORKSHOP GUIDELINES

1. Abbreviations: A (Attendee/s); F (Facilitator); W (workshop); HO (hand-out); HW (homework); PC (powerful country); OC (oppressed country). Unit I refers to the first day of the Workshop, Unit IV refers to the 4th day of the workshop, i.e. the first day of the second weekend.
2. All assignments on cards should be written legibly or printed. Your questions will be read by another person for discussion.
3. Time is limited. In order for everyone to have a chance to be heard, any reply or elaboration on a point should be said in 5 minutes or less. The person sitting to your left shall be the time-keeper whose chore it is to remind the discussant when the 5 minutes have been used up. This will unfortunately stifle dialogue. Another approach is to allow each Discussant one opportunity each to express the point.
4. A Suggestion Box is around for new ideas.
5. Unless otherwise requested, questions, written reviews and summaries, and questions or answers on cards need not carry the writer's name. Ours is a workshop of interchange of ideas. It is not important who said what. What is important is what was shared. However, those who feel that their work should carry their names are encouraged to include their names on their materials.
6. Questions which can be answered briefly can be asked at any point during the workshop. Complex questions needing lengthy answers should be written down on an index cards (card), and put in the Question Box. Technical terms which are not clear can be written on a card. Once each day, cards in the Box will be read and discussed.

UNIT I, HO# 5.

YOGA EXERCISE

Stand straight. Palms touching overhead, feet apart as wide as the shoulders, flat on the floor. Fingers reaching as high as possible, body stretched upward as much as possible but maintaining comfort. (This posture description is a simplified version of the Yoga position, Tadasana.) Hold as long as comfortable (a few minutes).

Then slowly, carefully, without pain or strain drop the hands forward to the floor, the head to the chin, slowly bending until the fingers are almost touching the floor. Hopefully, the head is lower than the heart. Gently move bones to loosen the joints. The more loose the joints, the lower the head and the fingers will drop very close to the floor. This is the yoga Uttanasana position. Hold as long as comfortable (a few minutes).

Slowly go back to the Tadasana position by slowly straightening up starting from the lowest spinal disc. Slowly straighten up each disc going upward until finally lifting the chin away from the chest and hand up stretched again in the Tadasana position. Do these two positions alternately with gentleness and comfort.

As with any exercise position, one is not supposed to worry about how silly one must look to an observer going through these contortions. One is supposed to make mental pictures of what is going on in the joints, muscles, ligaments, nerves, arteries, and how it feels to have the blood running. It will feel good to feel awake again after a few simple movements.

UNIT I, HO# 6.

YOGA IN DAILY LIFE

There is a yoga-practicing group in the Philippines who call themselves Ananda Marga. Large numbers of this group meditate by the ocean while facing the setting sun (Philippine sunset is reputed to be the most beautiful in the world). I knew little about this group until a bad typhoon hit our area in Manila. The water rose and swept away some of the fishing homes and its occupants, mostly children. On the beach near my apartment were theatres and auditoriums. Here the homeless were settled. But there was no kitchen to cook the much needed food. The government was distributing grain but there was no electricity for the stoves. Mine was one of the few gas stoves. I sent words to the temporary shelter that they could cook in my kitchen. The most energetic volunteers were the Ananda Marga. For three days and nights, they climbed up and down nine stories to my kitchen to boil grain. Grain was carried and eaten by the victims as fast as we could cook them. The Ananda Marga were the first to come to the rescue of the victims and they stayed on to help.

Who were these Yogis, and is it from yoga that they got their incredible energy and dedication? The memory of the yoga-practicing Ananda Marga and their compassion, dedication and energy made me take yoga to discover its

worth.

Yoga taught me the symbiotic activities of different parts of the body, much more than any of the numerous anatomy and physiology classes that I have taken. Yoga claims that its poses and breathing work with the heart to prevent heart disease and attacks; the circulatory system to control high and low blood pressure; breathing for asthmatics and those suffering from respiratory problems as a direct result of emotional tension. Yoga is a means to discover the inner qualities of one's self. More significant is learning of the peaceful state of mind and meditation. I can now see how the yogis get such positive attitude to life that they show. Its teachings help identify activities which bring about peace of mind and eliminate the restlessness that is so prevalent among the "upwardly mobile." It explains quite clearly the negative effect on humans of over-eating; large, cold, casual gatherings; smoke-filled rooms; horror and heavy mystery shows; and such. Moderation and balance are the key words, and yoga shows why--balance of the body in relation to gravity; balance of the mind between action and observation; balance of the neuroendocrine system between stress and relaxation.

Today, scientists and members of the medical profession are looking into the yogis to see how they can control certain aspects of their bodies and minds.

UNIT I

LECTURE

CHANGING PEOPLE'S EATING HABITS

(VIGNETTES)

Dr. Peter Pellett, one of my favorite mentors and a director of the UN Food and Agricultural Organization narrates being seated between a Syrian bean distributor and the Algerian Minister of Agriculture. The bean merchant talks about a sudden demand for chickpeas (garbanzos) in a location where chickpeas were traditionally not eaten. To paraphrase the story, there was in this area a children's radio program emceed by a comic who called himself Dr. Doctor. This comic came across information on the high nutritional value of chickpeas. In his radio program, he passed on the information to his young listeners, and urged them to tell the home food preparer to serve chickpeas. One can then imagine that the children of the locality all went to their mothers demanding chickpeas in their meals. The sudden unexplained demand surprised and pleased this chickpea merchant. And presumably, chickpeas have since then and to this day become a staple food in that area supplying the much needed protein.

My son from infancy had been a picky eater. He was the type who stuck to favorites. Aware of the nutritional advantage of variety, I was attempting to expand his diet.

How did I do this? At mealtimes, on some pretext or another, I delayed dinner until he was really hungry. Then I would set a bowl of his non-favorite in front of him--broccoli, shellfood, tofu, leafy greens. "Is this dinner?" mumbling how much he hates it, as he proceeded to put forksfull into his mouth. He is now a college student and when I visit him, I notice that the variety in his fridge include tofu, greens, skimmed milk and wholewheats.

I knew a man, a paraplegic who was raised in a meats- and sweets-oriented American home in Massachusetts. Every meal had hunks of meat, sausages, bacon, cakes and pies, gallons of milk and icecream (the expensive kind made with nothing but pure cream). For this fellow, eating out meant Whoppers, french fries and milk shakes. Two years ago, he met a woman who's a Vegan. They spent a lot of time together. She had taken over his meal preparation and in two years, he had shifted over to her diet--baked gluten, carrot juice, tempeh. He has taken to his new food.

Let us pretend that the Russians have learned to breed lumpfish that laid a pound of caviar a day. So they now have a mountain of surplus caviar in Moscow. They started shipping their surplus to the Philippines, even to the University cafeterias. Because our parents could not afford

caviar, we grew up not liking it. But now that the Russians are shipping it free or cheaply, we're all trying a little bit of it on everything. The Russians keep this give-away up for two, three years. After three years, everyone has acquired a taste for caviar... in fact have learned to love it. This is now the point when the Russians will put the price back up at \$50 a pound which was the price before the give-away. There are many, many more Filipinos who are now willing to pay for their caviar. They can no longer do without it. They have developed a taste for it. They're hooked.

Not too many Americans are aware that soybeans has been incorporated into almost everything on a supermarket's shelf. Soybean growers have changed the food make-up of the entire United States without the people being aware of this change in their eating habits.

The point of these stories is that people can and have changed their food preferences. But they must know why they have stopped, or started eating certain things.

My grandmother in the Philippines told me that in her youth, they didn't know white wheat flour as we know it now. She was also allergic to dairy in her youth and consumed very little milk, cheese and other foods made of animal milk. She was a very healthy woman who died at 86 from a

bad fall. The History of the Filipino People (Agoncillo, 1967) tells the reader that the tall, light-skinned migrants now referred to as "Indonesian A" arrived by boat and produced their primary food, root crops and millet. The Comparative Study of Nutritional Value of Grains, Unit IV, shows the nutritional superiority of millet to other grains. And yet, the Filipinos no longer plant nor eat millet.

Philippine Governor Vargas, ca. 1781 (de la Costa, 1967) records: "Prudent management is all that is required to make [the Philippines] yield its hidden treasures... cloves, cinnamon, pepper, nutmeg, food crops such as rice, wheat...." Wheat DID grow in the Philippines. Who said wheat cannot grow in the Philippines???

Still non-wheat and non-dairy producers, Filipinos are white flour and dairy consumers now. The Filipino's health education is that protein can be had only from meat and dairy. Filipinos believe they can get the needed protein even from the minuscule servings of meat they can afford. Were the money spent for meat channeled to legume protein, many more poor Filipinos would be healthier.

The argument of the meat lobbyists is that meat is desired when it can be afforded. Yes, in societies and communities where parents or the food preparers like restaurants and fast foods, force the meat habit on the young. There are many communities where meat is not desired

because it has never been introduced: Seventh Day Adventists, most of Japan and Asia before '50s and PL480, Macrobiotics, Mohammedans, vegetarians, and many consumers who are staying away from too much animal products.

The book, Food in History documents that the Jews, having been nomadic throughout early history ate no pork because pigs were and still are contrary and make poor travelers. Unavailability of pork therefore dictated the Jew's food preference. It was their nomadic lifestyle rather than a fiery dictum from above that eliminated pork. In time, non-availability became tradition attributed to both sect and culture.

The Politics Of Food



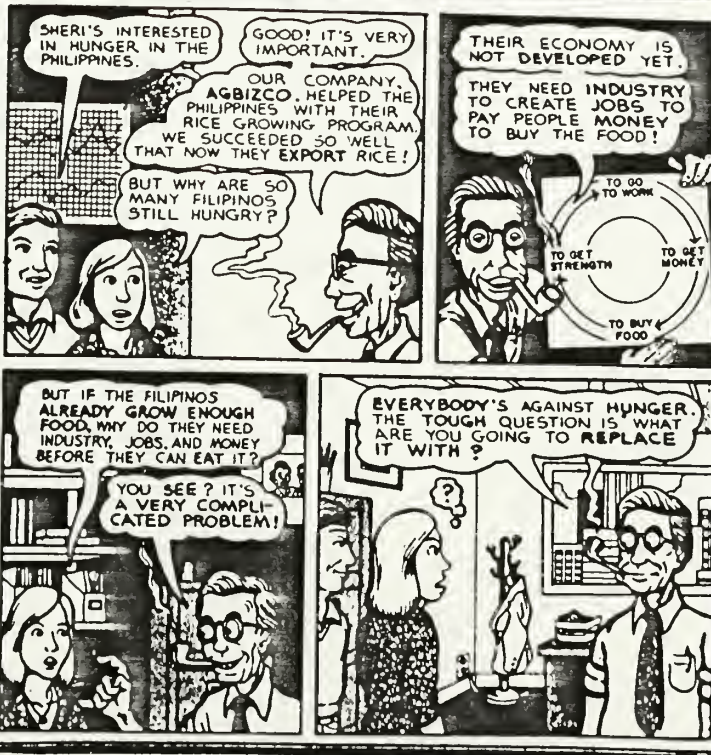
Frances Moore Lappe: "America is told that what Reagan wants is to push Nicaragua towards a democracy. Our policies are having exactly the opposite effect." (Globe photo)

An interview with Frances Moore Lappe: From the farm to Nicaragua

By David Gottlieb

The plight of the small American farmer is similar to the plight of small farmers throughout the world. So claims Frances Moore Lappe, author of the best seller *Diet for a Small Planet*, which has probably done more to change the eating habits of many Americans than the policies of Secretary of Agriculture John Block ever could do.

Yet, Lappe is more than the Julia Childs of the soybean circuit. She is co-founder of the Institute for Food and Policy Development, a non-profit organization focusing on food and agriculture research, documentation and education. While working to identify the root causes of hunger in this country and around the world, Lappe and the institute constantly question why people are starving in a world of plenty. Since *Diet* was first published over 10 years ago, Lappe has plowed through acres of documents, traveled across the globe and asked many questions. Her belief that food scarcity is a myth and that hunger is a product of unequal control over food-producing resources led to the institute's inception and to a small mountain of publications including *Food First: Beyond the Myth of Scarcity* and two



from Food First Contact '86

Lappe also feels that, unless individual Americans begin to take risks and challenge the policy makers, we in the United States "are in danger of losing even the little element of democracy we have left."

Last month, Lappe spoke at an agricultural convention at the University of Massachusetts/Amherst. The following article is taken from her address, a press conference and an interview.

A Destruction of Values

Lappe insists that American agribusiness, controlled by the wealthy and the corporate elite, is destroying values deeply rooted in our society. These values include the efficient use of resources, the concept of fair play, freedom of choice, and the desire of our children to inherit a better lifestyle than we ourselves have had.

"Economic forces are driving farmers to grow more and more of a stand in order to survive," says Lappe. Many small farmers can't keep up with the market and are being pushed out of business. At the same time farmers who do produce more are destroying our soil and water resources. Lappe cites evidence that "two thirds of our farmland is losing its topsoil faster than nature can rebuild it." In other words, the best farmland is literally being blown away.

Another value being undermined by big farming is the concept of fair play. "We believe that hard work and sacrifice and good management should be rewarded," notes Lappe. "Yet, size and wealth are rewarded—so much so...that one percent of American farms control two thirds of the net farm income." This is a concentration of economic might, reasons Lappe, that is "parallel to what we have studied to be the root of misery in much of the rural areas of the Third World." While private corporations like Minneapolis-based Cargill, the largest grain trader in the world, experienced five-fold increases in annual profit during the recent export boom, the net-per-farm income in real terms is half what it was before the export boom began.

Freedom of choice is also being decreased. Using a term coined by Bob Bergland—Carter's Secretary of Agriculture—Lappe says U.S. agriculture is moving in the direction of becoming a "landed aristocracy," where only those who inherit land, or who are extremely wealthy, can farm the land.

Lappe believes the solution to our agricultural crisis is first to "free ourselves from taking our economic models [whether capitalism or communism] as rigid dogma. Equitable land reform, here and throughout the Third World, says Lappe, must occur before significant changes can take place in American agriculture, and before world hunger can be eliminated.

What works in Nicaragua may not work in Sweden, but she says the U.S. has much to learn from both countries. In Sweden and

we can own farmland. Such a radical policy toward farm preservation is slowly sifting into the American legal system: In Nebraska, a recent constitutional change has brought similar requirements to the state.

Lappe, who has traveled extensively in Nicaragua, says that the country's laws protect private property rights. But, attached to the ownership right for land, is an obligation to ensure the land is producing for the entire society. If it is not, the owner will be compensated and the parcel turned over to a local farmers' cooperative.

Feeding the World's Poor?

Advocate: People say that American aid is at least partly successful in that it helps, at least for a short time, to ward off world hunger. Do you agree?

Lappe: I don't think the aid puts the crisis off—I think it contributes. Foreign aid is only as good as the recipient government. Aid does not democratize anything, it just reinforces what is there.... If you have a repressive dictatorship in power, like Somoza was in Nicaragua, our aid actually helped entrench and make that struggle much more bloody and much more costly than it would have been.

What is the fundamental role of the U.S. when it comes to foreign aid?

Our fundamental responsibility is not to go into other countries and try to set things straight there. Our responsibility is to make sure our dollars—whether they be through corporate intervention or through government support—are not actually helping to shore up an elite structure, like we are in the Philippines. The Philippines has received \$3 billion in multi- and bilateral aid in the last decade. And yet the Filipino people—just during this period of aid, while there was an increase in rice production and a massive overhaul of agricultural production—are the worst-fed people in all of Asia. That kind of aid is actually an obstacle.

Many small farmers in America believe they are helping to feed a hungry world. Are they?

The sad irony is that this very genuine desire to help the less-fortunate has been played upon. Farmers are given the message that, even if they themselves are going bankrupt, at least they're exporting this grain to help feed a hungry world.

This is not true. First, we have to understand that our exports are highly concentrated. Twelve countries receive 60 percent of all of our [food] exports, and most of those 12 countries are industrial. They are not hungry countries. Now, of the Third World countries that receive about 40 percent of the exports, most of these are oil-exporting, Third World countries.

It is very important to understand that what we export is feed that goes to livestock. Now, anyone who knows anything about the Third World knows that the poor do not eat meat. Most of the Third

what we export is feed and wheat—both of them going to a very narrow strata of people who live in urban areas.

So what we are actually doing is encouraging people to shift their taste away from that which can be supported from local production, and shift their taste toward what I would call the impossible. We are cultivating a taste for the impossible because there is no way that the world can support grain-fed, meat-centered diets for the entire population.

In the Third World, as we see now in Central America today, there is a basic struggle over the right to eat. As people stand up and demand their just control over food, those who have been made accustomed to a meat-centered and wheat diet, will cling more tenaciously than ever to that privilege, which they associate with status and Western ways. So, we are actually helping to set the stage for higher conflict in the future...by locking narrow strata into a resource use pattern, an imported lifestyle that can not be sustained.

"Inside the Sandinista Leadership"

One thing that has struck me about your books on Nicaragua is the flexibility in the leaders' planning, especially their agrarian reform. Is such flexibility widespread all over Nicaragua? And what particularly does the U.S. have to learn from the Nicaraguan revolution?

As you point out, we focus a great deal of attention on that theme—that the Nicaraguan leadership has shown a lack of rigidity. It has not tried to implant a foreign ideology on the people, but has examined local conditions and tried to respond to the logic of the majority. The most dramatic example of this, I believe, is their agrarian reform program. I think that, if they were knee-jerk ideologues, they simply would have called for a confiscation of all the big landowners' lands. Instead, they said, "We respect the rights of private property as long as you are making that property productive."

If Nicaragua is setting up a democratic government, why then is the U.S. supporting armed incursions into that country? What does the U.S. government have to fear?

What the U.S. government fears most is that, somewhere in the world, there will be a revolution that actually results in a democratic participatory process, and in the redistribution of wealth along just lines. If Nicaragua could achieve that goal of a democratic process and genuine redistribution at the same time—that would be such a powerful lesson to people throughout the world. It wouldn't be lost on the Philippines, on Salvadorans, Guatemalans.

That is the greatest threat to Ronald Reagan. How could he create the forces for justice in Central America or in Asia? It

could point to Nicaragua and say, "Look, we told you so. Why don't all you countries who think a revolution would make things better just look what happened in Nicaragua. . . . And just to try make do with the injustice you're stuck with."

The sad part is that Americans are told that what Reagan wants is to push Nicaragua towards a democracy. Our policies are having exactly the opposite effect, and I think that it's an *intended* effect.

What are the leaders of the Sandinista government like?

Basically, they are '60s generation people. And I mean that literally. Many of the people I met in major policy decision-making positions were educated in the U.S. in the 1960s and marched in anti-war demonstrations here. That's something that isn't widely known. These are people in their 30s who have no experience in government—mainly middle-class kids who grew up under this incredible dictatorship, where they saw misery and were moved through their religious commitments to risk their lives in the revolutionary process. And, because of that, they earned this position of responsibility in the new government.

How I feel about them is how I feel I might be behaving in their shoes: feeling overwhelmed, feeling here's your one chance of a lifetime to do what you dreamed of all your life, and being terrified that you can't do it. It's quite easy for us to identify with those people.

They are not rigid ideologues bowing to the Soviet Union or anyone else. The approach of the leadership, a month after victory, was to invite outsiders in and say, "Look, we know we have to make the decisions. It's our country. We want you to help us shine the light down the road so we can see the consequences of *this* choice versus *that* choice." That's the kind of people we're dealing with.

Can you explain how the democratic spirit of the revolution—as you refer to it—works?

The spirit of it has been democratic since the beginning. This is definitely true. I can swear to it in agrarian reform. We know how the law was developed. It wasn't passed down by the Marxist-Leninist, blah-blah-blahs you hear about from our government. A draft was drawn up and this was passed down through all the organizations that would be affected: the farm workers, the small farmers, the large farmers, back up to the council of state, which is the legislative body. Compromises were worked out before it became law.

Having said all that, it is true that any society that is under pressure—that fears for its life—becomes more repressive. Every

would be instantly constructed? People who were under any suspicion of being sympathetic to the enemy....

Yes it's true that Nicaragua will become more repressive, now that there is some press censorship, whereas before the opposition paper could print any sort of lies, any sort of innuendoes about the government. But the government still allows tremendous debate—more than you would read in *The New York Times*, for example, criticizing our government. So it's not true there is no criticism allowed.

But yes, Nicaragua will become repressive and it will turn towards the Soviet Union if pressure from the outside continues to mount. There are people in Nicaragua, in leadership positions, who have said, "Look, the U.S. will never be an ally of ours. It will always try to hurt us, and therefore we have no other choice but to turn to the Soviet Union." And of course, as the U.S. becomes more hostile, people with that perspective rise to power. Now that's a very understandable perception, given the hostility of our government and our documented intervention in that country.

The Link Between Farmers

You've stated that the fate of the small farmer in Third World nations is basically the same as the small farmers in the U.S. How do small U.S. farmers react to that when you speak to them?

I think that most small- and medium-sized farmers in the U.S. feel that their days are numbered. I really feel there is a deep resignation. They've seen it now for so many decades—this relentless progression that rewards size and forces growth, yet only allows those to grow who have the space. From the point of the individual farmer, even when the prices go down to the bottom, the individual farmer's motive is to produce even more, and that of course brings the price down further. So the individual farmer can't solve the problem. It has to be on a much broader front.

My line is that anyone who eats deserves to speak out about farm problems. It has to be understood by our society as a whole that the farm structure is important overall to values that we have as a society, and not just to protecting the individual farmer and those values I've already mentioned, but to protecting the value of stability, of people being able to count on a continued livelihood.

What do you think has to happen in this country to get people thinking about fundamental political changes that have to be brought on by everybody?

I see it—I don't know if you see it—but I certainly see it in this period of a deep

kind of social change process.

When we were in Nicaragua, for example, people told us that the first thing that had to happen in the political education, that

ultimately succeeded in overthrowing the dictatorship, was you have to convince people their poverty is not their fault. That's number one.

And that's the problem in America—that everything's so individualized that people feel their lack of a job or adequate income is their own personal failure. Now that we're in this recession, everybody knows somebody who's unemployed. You know people just as motivated and as capable as you are, and yet they're jobless. So this is beginning to cut through the myth that anyone who wants to can make it in our society. I see definite change. There's much more suspicion of corporate and government decision makers. That is something to be encouraged.

It is interesting that Americans are so hopeless about the possibilities for the future when we see countries with so many obstacles in the way of change. Yet there have been such enormous changes. I'm thinking of a country like Nicaragua or China. China watchers of all stripes said in the 1930s and '40s that China could never feed itself.

Likewise in Nicaragua, as late as 1978, people agreed that there was no way a poor peasant rebellion could win against the brutality of a dictatorship that was supported with U.S. arms. And so it surprises me that—for people of my generation—when we look around and see these enormous changes, that yet we are so hopeless about change in our country. I think of these countries where people are breaking out of these rigid *isms*, and I think that's the challenge of Americans today. □

Governments not drought cause hunger

To the Editor,

Daily Hampshire Gazette:
I am writing this in response to the July 15 AP article entitled "Live Aid pledges near \$70M" in the Gazette. I want to say that it is laudable that such a significant number of people have responded with concern and contributions for what they consider to be a felt need in Ethiopia and with Ethiopian refugees in Somalia and the Sudan. There are serious misconceptions however concerning the origins of hunger in Ethiopia. In short, hunger in Ethiopia and virtually everywhere is a direct consequence of government policy.

Contrary to the comments in the AP story, there is much comparison between United States policy during Woodstock (1969) and Live Aid (1985). To quote from the article: "Live Aid is focused on putting food into stomachs of people. Woodstock was to stop war." ... Steve Sillis "It brought back good memories of the 60s and the causes of those times." ... Bob Palmer.

There seems to be a touch of nostalgia in Mr. Palmer's comment, as if issues have changed. As I remember the 1960s, the key issues were war and civil rights. As I experience the 1980s, war is still an issue and President Reagan's policy on bills such as the Voting Rights Act would suggest some serious ethical questions concerning this administration's posture or lack thereof on racial issues.

One major concern of the 1960s and the 1980s which is essentially the same is war and the intentional

political and economic destabilization of civilian populations. Herein are the reasons for hunger in Ethiopia and for the existence of refugee populations in neighboring countries — not drought, not poor farm management, not overpopulation.

There was war and hunger in the 1960s. Consider the Vietnam in the you remember, they were recipient of U.S. overkill in both human and environmental terms ... Vietnamization it was called. In July 1985 the U.S. follows a similar air war policy in El Salvador. They do not call it El Salvadorization ... not yet. But the consequence is the same, to oppress a people by destroying their entire infrastructure, primarily their control over food production. Interesting to note Live Aid "was covered by hundreds of reporters from all around the world," with all eyes focused on Ethiopia, but not one reporter to write about the hunger in El Salvador from the U.S. sponsored air war.

Hunger is not new to Ethiopians. During the U.S. presence under Haile Selassie, a feudalistic land policy ensured that the most productive land was in the hands of private corporations as well as the property owning elite. The U.S. policy against Eritrean autonomy beginning in 1962 had as its base the destabilization of the agricultural/pastoral relationship of Eritrean society.

This was continued and expanded in 1984 by Colonel Mengistu and the Soviets to oppress other Ethiopian people as well. As a result there are currently liberation fronts among the Eritrean, Tigrean, Afar, Oromo, and Ogadeni people. Coincidental that these areas are where the "famine" is most severe.

Destroying crops to subvert a nation's food supply is a centuries'

Daily Hampshire Gazette, MA.
July 18, 1985

old practice. The Ethiopians do it. The Soviets do it in Afghanistan, and the U.S. pays contra mercenaries to do it in Nicaragua.

In 1983-84, I worked as a field program assistant with the United Nations High Commission for Refugees (UNHCR) in Northwest Somalia is on the Ethiopian border. There was no drought. Neither was there local grain production because there was so much food aid in the market that it acted as a deterrent to local agricultural production. Local farmers cannot grow and market their millet, sorghum, and maize when free food aid is competing against them. This, however is in the American interest because the long term goal of food aid is to create markets for American agricultural products.

It is important to note that during my time in Somalia, not one Ethiopian told me that she/he was there because of famine. Their reasons were political/tribal persecution. Furthermore, refugees in Northwest Somalia were generally more nutritionally sound than rural Senegalese and rural Colombians with whom I have lived and worked. The need is not one of increased food aid. Food aid, as it is utilized, merely institutionalizes dependency at the expense of durable solutions.

The Somali Government would like the world to believe that there are 1,500,000 refugees in Somali camps, when in reality there is considerably less than half of this figure. The UNHCR has 'negotiated' a figure of 700,000 which is still excessive, but a higher head count means more food aid which translates into more profits for Somali authorities.

The refugee community in Northwest Somalia is a resourceful one of small farmers, herders, craftspeople, students, and among them are

many talented, skilled, and articulate people. During my time with them their priorities generally were (1) To have their land returned to them so they could go home; (2) To have guns to get their land back although this was expressed by only a minority of those with whom I spoke; (3) For students to have an opportunity to receive a college education, to develop skills and leadership abilities which will allow them to collaborate for a future of peace and justice in Ethiopia.

There is an abundance of rice agricultural land in Ethiopia, but it is in the government's interest to grow cash crops for export rather than to feed its people with food crops. When I read that \$70 million had been garnered by Live Aid, I initially thought of the land that could be purchased with that money, but after all the effort by Mengistu to starve opposition tribes into submission and displacement he certainly isn't going to honestly negotiate real estate with them, no would I suggest him as a broker.

And guns even though they may be effective instruments of change I will not propose to anyone as an alternative.

However, consider the educational network this could create. Any fraction of \$70 million could create scholarships and educational opportunities for talented refugees who are presently stagnating in Somali camps. Americans, Europeans, and all nationalities would increase their awareness about Ethiopia, its people, and international policy in the Horn of Africa. At the same time the refugees would benefit from the educational and training opportunities the recipient countries could offer them ... and this could make

Tom Neilsen
Hadd

UNIT I, HO# 9.

EXODUS OF THE FILIPINO FARMER
FROM FARM TO URBAN SHANTY-TOWN

1. Small independent farmer plants a staple grain.
2. At around his harvest time, the local market is flooded with imported grain. An oversupply and lowering of price has been created.
3. The farmer is unable to sell his harvest because the imported grain is lower than usual.
4. The consumers (rich and middle class) are happy with the artificially low price.
5. The farmer is unable to underprice the imported grain.
6. His grain remains unsold, and rots under his hut. He cannot compete with the billion-dollar Western grain merchants.
7. At the peak of his desperation over his crop, he receives an offer to buy his farm which has belong to his grandparents.
8. Farmer , believing that there is no market for the grain he can grow decides to sell his farm.
9. He plans to move to the big city where he hears there are good paying jobs.
10. Farmer is unable to get a job in the city, and is over-staying his welcome at his relatives' shanty-house.
11. Farmer's money from sale of farm runs out. He and his family's starvation has begun.

UNIT I

CONTENT PROCESS

Opening of Workshop (9:00 a.m.). The Attendees do not have too far to travel. Everyone should have arrived by 8:45 a.m. A taperecorder is necessary to record the proceedings of the workshop which will be transcribed and sent to the Attendees. The taperecorder will be put to use immediately. From 8:45-9:15 is Registration and Coffee. A perennial favorite song in the Philippines known to both young and old is Getting to Know You from the play The King and I. This piece will be playing on the taperecorder.

Hand-outs. The hand-outs for Unit I, this day's session, will be on the "HAND-OUTS FOR TODAY" table. Everyone should pick up their packet. At 9:15 everyone should be seated. Chairs are arranged around the chalk board in a circular fashion. On the board is written:

Indigenous Foods--Better Health, Better Economy

Dahlia Aspillera, Facilitator

Two 3-Day Weekends. Friday & Saturday, 9:00-4:00.

Sunday, 10:00-3:00.

The Attendees will be asked to please write down the personal data requested by the Facilitator. The Facilitator will display a sample card:

Dahlia Aspillera, teacher, one son, age 20. Home for the past 6 years, Amherst, Massachusetts, USA. Before then, various cities around the world. Schools attended: St. Scholastica's and Philippine Women's, Manila; Montgomery College, Maryland; Cornell University, New York; graduate studies at Univ. of Mass. where I taught college English. Concentration: political economy of food. Hobbies: Cooking, books on history, sailing. I wanted to be a nun when I was in elementary school!

The Attendees will be asked to write down: his/her name; single/ married; schools attended; concentration/ specialization; school where currently teaching; husband's occupation; children/ages; what did you want to be when you were in elementary school; hobbies; what do you expect out of this workshop?

The Facilitator will announce that the Attendees do not have to provide all of the information asked for if they choose not to. If any of the Attendees find the information requested too personal or not relevant, s/he can skip that answer.

"Are there any questions?" This question is never asked often enough at workshops. This workshop will make a point of asking it at the end of each topic.

When everyone is done, the card will be given to the

person to one's left. The purpose of handing over the card at this point is so that the recipient can skim the card and can have an idea of the identity and a bit of background one more person in the group. This recipient will later introduce the owner of the card to the group. Again, "Are there any questions?"

At this point (9:30) a waker-upper is appropriate. A gentle Yoga bending exercise is described in the hand-out.

At 9:45, we all return to our seats and pick up the Introduction cards handed over by our neighbor to our right. The Facilitator will start the Introduction to get the ball rolling smoothly. Her tone and interest in the person to her right whom she is introducing will set the mood. She introduces the person to her right using all the information on the card. When she is done, she requests the person she has just introduced to in turn introduce the next person going counter-clockwise. The last person to the Facilitator's left introduces the Facilitator.

(10:00) Topic: Changing People's Eating Habits.

This will be followed by a half hour break. Before the break, the Attendees will be asked to think up and write on an card an idea or two on why a person may eat a new food or stop eating a familiar food.

In the lecture, the Facilitator mentioned a few ideas:
1) Forcing (an ugly word but still used on the young) them to eat well-prepared non-favorites--fish, broccoli, etc.

- 2) Educating the clients on nutritional values of different kinds of foods.
- 3) A change in economic status--a step up or step down in income does affect one's food intake.

When the workshop resumes, the cards with the ideas will be collected and discussed with the entire group.

The next period (11:15-11:30) will be used up reading the hand-out, Politics of Food. After reading the material, the group breaks up into 3 small groups. This is accomplished by counting off: 1... 2... 3... clockwise. All #1's will form a group to discuss the section 1 of the article; #2 the second; #3 the third. Each group will select a leader. The group will analyze the accuracy and applicability of the material to their own experiences at the 1:30 session. At the end of the discussion the spokesperson will be picked up by each group to present the group's interpretation of the section of their article.

Lunch break is 12:00-1:30. Lunch is most likely a brown bag affair, eaten together outdoors.

At the session after lunch, the speaker for each group will discuss the small group's opinion of their section of the Politics of Food. Each speaker will be allowed to present the groups opinion for 10 minutes, then 2 questions, one from each of the other group will be received and answered by the speaker. Three minutes will be allowed for each answer.

From 3:00-3:30 will be the discussion on Farmer Displacement- -Flow Chart. A flow chart is best learned by going through it very speedily in sequence. Then, a more thorough discussion should follow going the reverse route; starting from the end of the flow chart. That means understanding of the effect, and going upward toward the beginning, the cause(s).

At 3:30, and for the next half hour, the hand-outs for the next two days will be given. Brief abstracts will be given for all the issue and position papers. Homeworks, activities and projects will be explained at this point. A few minutes before 4:00, the homework will be assigned and explained. On an index card, one or more idea learned today that can be passed on to elementary school pupils.

UNIT I

ACTIVITY RATIONALE

"Getting to Know You": Such a song as background music will put casualness and ease during this awkward stage of the beginning of this workshop. It is possible that more than one person would come from a particular school or barrio, but not too many will be familiar with each other. In the Philippines, the barrios are not geographically far apart. In fact, there seldom is a visible demarcation line between barrios. At the start of this workshop, anything that can help to remove the shyness and the "why am I here" attitude will set a positive atmosphere. Having this song playing is a plus.

Circular Seating: When doing group discussions it is important that each Attendee can see the others' faces.

Group Introduction: This process of introducing workshop attendees which I have never seen before done anywhere else and I myself devised is far more gracious and effective than the usual, "Hello, my name is... I am... I did... I was... I have been...." There is something disconcerting about rattling off a litany of accomplishments and assets about one's self for both the speaker and the listeners.

Lecture: This workshop has the Attendees constantly problem solving, thinking, writing, participating, being

creative. A brief lecture--just listening--is acceptable. The topic is light. Food Habit is maintained by the availability of and continued dependence on a specific food. Food acceptability is mimicked, inherited. Food preference is created by continued exposure to the same food. These facts question the myth that a people's eating habits cannot be changed.

An hour-and-half lunch break: A considerable amount of idea-exchanging will occur during lunch period which justifies the length of time.

How much politicizing? The workshop will avoid politically dogmatic topics. However, what if the Attendees themselves bring it up? Although teaching is in itself a political action, it is ineffective to lead the classroom a red flag and wave them into a revolution. Soliciting followers to a different ideology is not teaching. These Attendees are here to learn new ideas on food economics for themselves and their elementary school pupils.

However, how is the facilitator able to draw a line between issues that empower and political issues that harangue? When a woman who has been victimized by sexual harrassment is taught in a class, empowerment is gained. She has been taught to ask, "What is going on? Why am I allowing my body to be a commodity? Is it because a woman can be considered as a functional commodity that women appear to be more oppressed of the sexes?

(When I was in Spain, I couldn't believe the poverty, suffering and oppression that I heard about and saw. Spain to me is the original oppressor and colonial master. It is shocking for a Filipino woman like myself to see an impoverished and oppressed Spaniards. The only Spaniards most Filipinos knew were wealthy and powerful, and cruel. I watched women in Barcelona and Palma de Mallorca who thought themselves so insignificant that they cast their eyes down when they talked; constantly apologizing for their inadequacies. Exactly like poor Filipino women. The rich and powerful will oppress even their own. Absentee landlord is the historical ill of the poor of Spain. Absentee landlord is the historical ill of the poor of the Philippines. Four hundred years of Spanish colonization in the Philippines taught the rich the rich Spanish ways of doing things.) Are issues such as this issues that empower or issues that harangue in a workshop?

Attendees: Another reality to be sought might be why these Attendees came. Some may say that their superiors in Manila told them to, or his principal told him to participate in this food workshop. As Facilitator, I would find it offensive if someone said, "I didn't need to be here." I will think it is something against me and I will take it personally. And that will affect my attitude toward the group. If you can recognize this possibility and start by finding out why they are there and what brought them

there, and what they expected to get out of their stay, or why they wish they were elsewhere, the situation has a chance. When you are silent, you let other people make the decisions for you.

UNIT II, HO# 1.

INDIGENOUS FOODS = BETTER HEALTH, BETTER ECONOMY

WORKSHOP

AGENDA

- 9:00 - 9:10 Collect cards with yesterday's Homework. Today, as you come across topics, ideas, projects, activities that are suitable for your elementary class, please write them down on a card. The card will be collected at 4:00 today.
- 9:10 - 9:45 Lecture: Soybean Meat as Protein.
- 9:45 - 10:00 Waker-upper. Yoga and Breathing.
- 10:00 - 10:30 Silent reading of Capitol Hill Meatless Party.
- 10:30 - 12:30 Cooking Class. Philippine dishes with Meat substitutes.
- 12:30 - 1:30 Lunch with guests.
- 1:30 - 2:00 Issues: Cassava, Ahm, Infant Formula.
- 2:00 - 3:00 Small Group Discussion; each group will create a Flow Chart on each topic.
- 3:00 - 3:55 Cling Board - map.
- 3:55 - 4:00 Homework: 1) Summarize the Definitions of Terms and Acronyms; 2) 2-paragraph outline, Position Paper on Green Revolution.

UNIT II, HO# 2.

INSTRUCTIONAL PLAN

TOPICS

Meat Analog and Protein
 Yoga Breathing
 Cassava, Ahm and Infant Formula
 Recipes With Soybean Protein
 Capitol Hill's Soybean Party
 Multinational Firms in the Philippines

HAND-OUTS

Agenda for Unit II
 Instructional Plan II
 Yoga Breathing
 Protein Council Soybean Party
 Cassava, "Ahm" and Infant Formula
 Multinational Firms in the Philippines
 Recipes with Soybean Protein

HOMEWORK

Definition of Terms and Acronyms
 Outline of a Position Paper on Green Revolution (two paragraphs)

MATERIALS

Cling Board (cloth, scissors, paste, frame, etc.)
 Ingredients and recipes for two Philippine dishes.

ACTIVITIES

Small Groups discussion
 Experimental Cooking
 Exercise
 Creation of Flow Chart
 Creation of Cling Board
 Writing of Position Paper
 Silent Reading

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UNIT II, HO# 3

March 15, 1979

The Washington Post--They gave one of those huge 5 - 7 receptions on Capitol Hill recently: Everyone came and ate up all the food.

That's not particularly newsworthy in Washington where you can always turn out a crowd for free drinks and hors d'oeuvres. What made that occasion different was that all the food was made with soybeans. And a lot of those people who showed up were ambassadors, not their second secretaries who are usually sent to such events.

How did anything which sounds as unglamorous as the Food Protein Council snag all those high-powered diplomats such as Swedish Ambassador Count Wilhelm Wachtmeister and Iranian Ambassador Ardeshir Zehedi to an event titled an International Soybean Fair?

First of all, Rep. Paul Findley (R.-Ill.) got together with the Protein Council people who represent most of the producers and processors of soybean products in this country. The council footed the \$10-a-head bill; Findley supplied the hall, the Caucus Room of the Cannon House Office Building. There are an awful lot of soybeans grown in Findley's district.

Then Findley's staff made up a list of every representative in whose district 10,000 acres or more of soybeans are grown; added on members of the House Agriculture and International Relations Committees, even if they didn't have any soybeans in their districts, and asked them to co-sponsor the reception. Of the 154 members approached, 70 accepted and most of them showed up.

Each of those representatives was asked to invite one or more of the ambassadors by personal letter with a personal follow-up phone call. How could an ambassador refuse, even if soybeans are not a significant source of food in his country?

The Swedish ambassador, for instance, was invited by a friend and fellow Swede, Rep. Elford Cederberg (R.-Mich.). He came, brought his agricultural attache and said he learned a lot of interesting things about soybeans.

Zehedi came "because a few friends invited me and we buy a lot of soybeans from the United States." Zahedi said soybeans are very important in Iran.

But even the congressional sponsors were amazed at the response. Rep. Margaret Heckler (R.-Mass.) said the high-level turnout was "really impressive." She said even though Congress doesn't realize it, and is busy "discussing arms, food is where the whole world is."

Half of the \$3 billion worth of soybeans grown in this country is exported. Most of what stays here is turned into oil; the residue is fed to animals, which is why soybeans are sometimes known as cowbeans, which explains why they are not thought of too highly as people food.

Yet, the majority of the 500 or so partygoers ate the meatballs, turkey roll, salami, Vienna sausages, cocktails franks extended with soy and the meatless sausages and bacon whose base was soy, and said they were delicious.

But try to sell these people soy products on the open market and they make a face.

Vegetarians and health food fans eat them; those who must watch their intake of saturated fat do, too; but beyond that, soybeans don't sell.

Part of the problem goes back to the meatless Thursdays of World War II. According to the vice president of Archer Daniels Midland, a large producer of soy products, older Americans have a mental block against them. They remember the rather crude and unappetizing form in which soybeans were served in the 40s.

Richard Burket said soy products have come a long way since then. They are extruded, spun, flaked, seasoned and who knows what else so that they are hardly recognizable. What's more these technological marvels hardly have any funny taste.

But Burket said there are still a lot of problems: a very strong livestock lobby, regulatory problems, and a lot of apathy. He said economic pressures overseas, which force people to buy the inexpensive soybeans are not the same in this country. When meat prices skyrocketed a few years ago, soy producers began a campaign to sell their products and they have some success. Many people began buying textured vegetable protein as an extender for ground beef. When meat prices declined, so did the sales of the soy extenders. The Soybean Fair, Burket said, was the beginning of another marketing effort.

Soy is already in many food products and with the exception of shoppers who read labels very carefully, most people don't even know they are eating it. It is used to extend all kinds of processed meat products from chili con carne to hotdogs, from ground turkey to fish fillets. It is also put in candies.

As one congressman said when asked if he'd ever eaten soybeans before, "I may have, but you know, you can't tell these days."

UNIT II, HO# 4.

YOGA BREATHING (PRANAYAMA)

Pranayama is the conscious use of the lungs, diaphragm, breathing muscles, nose, throat and mouth to channel the subtle life energy within the body.

The breath is the only thing within us that exists in the present. The body is in the past; it represents past decisions of nutrition and movement, and carries the scars of past injury and illness. The mind, on the other hand, often lives in the future. It moves ahead, planning, thinking and scheming. But the breath responds only to what is. If one is running, it speeds up to meet the increased physical demand; if one is sleeping it slows down to the proper rhythm. Because of this quality, the breath is a perfect tool for meditation. By concentration on the breath, the mind and body can focus on the present. Virtually every meditation technique uses the breath in some way. The breath is a natural focal point for the mind; no external point is necessary. No matter what situation is at hand, one can center one's mind in the present by focusing on the movement of the breath. Like an ever-present guru, the breath reminds us of the here-and-now.

By constant practice of Pranayama, the respiratory system is strengthened. But more important, the mind and emotions are brought into stillness. When this happens, one becomes a receptive channel for the spontaneous regenerative power of meditation.

(Excerpted from "What is Pranayama?" by Judith Lasater, Yoga Journal, March/April, 1982.)

UNIT II, HO# 5.

CASSAVA

When the US was a colony of England, Americans were forbidden by England to make crystal and china. Glass was a major export of England and anyone in the US who produced England's export was thrown in jail.

Today in the Oppressed Countries, any farmer who competed with Western agriproducts got outsold and underpriced, which is worse than being thrown in jail. For example, an Oppressed Country farmer cultivates corn expecting to sell his harvest at the going price. When the native farmer is about to harvest, the price of the crop could suddenly go down. The market is flooded with the same grain from abroad. The impoverished farmer literally loses his roof and his shirt. OC farmers have learned not to give the West competition because they cannot win. They just quit large scale farming of such grains as corn.

Oppressed Country farmers are increasingly producing cassava (manioc) because meat producers in Europe found that they could substitute cassava in their animal feed mixes in lieu of dutiable, expensive, imported corn. This was the beginning of the demand for cassava as a cash crop.

With this European orders for cassava, American ships that carry white flour and high priced animal feed to the ports in the Oppressed Countries, pick up from these same

ports thousands of tons of cheap cassava chips. Several million tons of cassava is imported by Europe annually in what is largely an unregulated trade of animal feed. The Western grain companies' interest in cassava is that it is not subject to the duties of the European Common Market as corn and wheat are. European and North American farmers do not grow low-profit, soil-depleting cassava.

Impoverished independent farmers in OC therefore face the problem of being relegated to cheap and low-yielding cassava. This starchy, nutrient devoid rootcrop is the main, on-going and good old dependable crop with a market. Those in power allow, in fact, encourage the Oppressed Country farmers to plant cassava. The vicious cycle for the independent farmer is simple: farmer plants cassava... sells cassava to Western merchants cheaply... because there is not enough money to buy better food, the family lives mostly on cassava... receives order for more cassava... eats more and more of the crop... ad mortem. The farmer cannot get out of the cassava quagmire since it is the only crop with a sure market, their children suffer from malnutrition and cassava toxicity.

In a study supported by the Belgian government, the Zaire Institute for Scientific Research and Canada's International Development Research Center indicate that in regions where iodine is not adequate (non-coastal areas), a steady diet of cassava can cause endemic goiter, cretinism

and mental retardation. Cassava contains cyanogenic glucosides which the body turns into thiocyanate which inhibits iodine intake by the thyroid gland. Unfortunately, a malnourished body is more susceptible to any toxin.

A solution that will help this susceptibility is to improve nutrition. A simple solution is to plant protein-rich soybeans along the marketable nutrient-devoid cassava. After the protein-rich beans and edible young leaves are picked for home consumption, the nitrogen-rich soybean roots and stems can be turned into the earth to enrich the soil.

The roots of soybeans and other leguminous plants are invaded by *Rhizobium* bacteria. The relationship between bacteria and soybeans is symbiotic. This relationship improves the soil at no cost to the impoverished farmers. It is the same principle as crop rotation except that the farmers cannot afford the luxury of planting only the high priced crops (like soybeans and corn) since their these get underpriced by imported grain. Soybeans, the high priced and protein-packed crop becomes a means, not an end. Soybeans does not drain the soil. It makes its own fertilizer. Cassava, one of the crops having the least food value to the consumer, sucks all the nutrients out of the soil.

The factor present in leguminous plants, specifically soybeans, which is absent in cereals and other plants, is

the low concentration of free O_2 . It is at the root nodules where O_2 binds to leghemoglobin. Increasing the rate of nitrogen fixation by blue green algae which generate their own ATP by photosynthesis is studied. The high cost of commercial fertilizer is prohibitive to the poor farmer.

Another potential solution which is under study is to insert the genes of nitrogen fixation into nonleguminous plants such as cereals. But without these possibilities, the impoverished farmers can ally themselves with the Rhizobium bacteria and blue-green algae for his family's nutrition and soil enrichment.

UNIT II

NEW INTERNATIONALIST, SEPTEMBER 1985

NUTRITION

Cyanide food

Investigations into cassava

IF you were to choose the ideal staple crop for any country you would be unlikely to choose one which had very little by way of vitamins or minerals and was also liable to give you cyanide poisoning if you were not too careful.

But that's cassava for you – a root vegetable which is a staple crop for some 500 million people in Africa, Asia and Latin America. It is also known as manioc, tapioca or yuca and is used so widely because it can grow well in soils too poor for other crops, with a penetrative root system that can search for nutrients more than a metre below the surface.

It also defies seasonal variations, producing a crop every five to six months, regardless of when it is planted, and is so undemanding of the farmer's attention that he or she can produce a ton of the root using half the work time that it would require to produce an equivalent amount of maize.

It is certainly rich in carbohydrates. One ton will provide around 1.2 million calories. But it is so ill-endowed with proteins and vitamins that a high intake can result in deficiency diseases. This can be countered by eating protein-rich foods with the cassava. Such supplements are not always available, however, or may be too expensive.

But it can also be poisonous. Both the root and leaf of all 150-odd varieties of cassava contain cyanogenic glucosides as well as the enzymes which cause them to release hydrogen cyanide as soon as any rupture of the cell wall brings them together. High cyanide intake can lead to many debilitating illnesses mainly associated with the thyroid gland.

There are two precautions which have

traditionally been taken to minimise this danger. The first is to consume it as soon as possible after harvest before the poisons have had the chance to build up. The second is to grate and ferment the cassava and then roast it in oil to make a flaky material which is storable and converts it into a porridge-like food. This does reduce the cyanide content but analysis of such products in the marketplace shows that the cyanide is rarely eliminated completely. And in addition the fermentation process further reduces cassava's already negligible protein content.

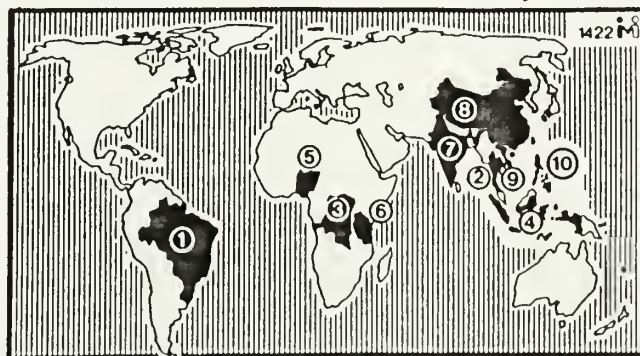
Research into cassava has been neglected largely because it is a 'poor people's' crop and its consumers have very little purchasing power. Now, however, a new research programme, initiated by the United Nations Industrial Development Organization in Vienna, is investigating how cassava can be made safer and more wholesome.

It is hoped that this can be done by upgrading the traditional fermentation processes. The aim is to identify the 'adventitious' micro-organisms which are responsible, discover which of them do the job best and under what conditions – and then work out how to cultivate and use them.

The task is double-sided. As well as eliminating cyanide, micro-organisms could also be used to add protein, possibly by converting some of the cassava itself.

The programme is also looking at the possibilities of processing cassava on a commercial scale, though there are dangers inherent in this. Commercialisation could turn cassava into a cash export crop, thus removing an important source of sustenance for millions of people and leaving them worse off than they were before.

Gamini Seneviratne, Gemini

**Top 10 producers**

1983 production in millions of metric tons

1 Brazil	22
2 Thailand	17
3 Zaire	15
4 Indonesia	14
5 Nigeria	10
6 Tanzania	7
7 India	5
8 China	4
9 Vietnam	3
10 Philippines	2
World total	123

SOURCE: FAO

TOO MUCH CASSAVA CAUSES GOITER

THE WORLD'S seventh most important food crop could be dangerous in certain circumstances, according to a Belgian research team's study of the glandular effects of cassava (*Manihot esculenta*) on the population of Idjwi Island on Lake Kivu, in Zaire.

Their findings indicate that in regions where iodine is barely adequate, a steady diet of cassava can cause endemic goiter, cretinism and mental retardation by inhibiting the intake of iodine by the thyroid gland.

Dr. Andre-Marie Ermans, of the Department of Isotopes at the Saint-Pierre Hospital in Brussels, had observed striking differences in goiter incidence between one part of Idjwi Island and another. A thorough survey helped pinpoint the one factor that was responsible for the difference: cassava. Metabolic studies and animal experiments unveiled the mechanism of action.

Cassava contains cyanogenic glucosides; when ingested, these glucosides are detoxified, yielding another substance, thiocyanate, as a by-product; thiocyanate, in turn, inhibits iodine intake by the thyroid gland.

A campaign to eradicate goiter and cretinism in the region has been launched. It is supported by

the Belgian government, the Zaire Institute for Scientific Research and Canada's International Development Research Centre.

Congenital hypothyroidism, with its *sequela*, notably cretinism, is one of the most widespread diseases in the tropics. In a period of ten years ending about two years ago, epidemiological studies in Africa, South America and Asia have revealed that more than 200 million people were affected by goitre. How much cassava, as a staple food, may contribute to this is yet to be determined. Production of this tuberous root is estimated at 100 million tons a year. As a crop that can grow in poor soil, with little water, it is the principal source of carbohydrates for some 300 million people, most of them in tropical developing countries.

As *Ceres*, the journal of the Food and Agricultural Organization said: "In recent years, there has been great emphasis on research to improve cassava productivity and utilization, but the findings of the Belgian team point to new and imperative avenues of research—the prevention of cassava induced hypothyroidism, better ways of detoxifying the tuber before it is consumed, and the development of new lines that contain less cyanogenic glucosides." □

UNIT II

assignment children

A JOURNAL CONCERNED WITH CHILDREN, WOMEN AND YOUTH IN DEVELOPMENT

Breast-feeding
and health

55/56

1981



unicef



The staff was also nervous about the risk of cross-infection. On the contrary, once we initiated the policy of rooming-in, we no longer had any outbreaks of diarrhoea and clinical sepsis.

What the staff had to develop was a sense of determination. For this reason, we distributed educational materials to help them understand their work better. In addition, we had weekly discussions on obstacles and alternative solutions to breast-feeding. We wrote down a standard operating procedure, which in the last five years has undergone several revisions.

The biggest challenge came from the nurses and physicians who gave birth at the hospital and wanted to bottle-feed their babies. I had to devote my personal attention to them, convincing them of the advantages of breast-feeding and then monitoring their movements closely. Some of them would waver, others bottle-fed their babies without my knowledge. As time passed, however, they observed that fewer babies were becoming sick in the nursery and their attitudes changed.

Reassuring and educating the mothers

The mothers themselves also constituted a problem. Some who had never before breast-fed were afraid it would cause them pain. They were assured that the pain involved was minimal and temporary. A few refused to breast-feed for other reasons: sore nipples, blocked duct, or mastitis. We explained to these mothers that their breast milk was quite safe for their babies. In most instances, especially in the case of sporadic mastitis where the infection is in the tissues rather than in the milk duct, mothers were encouraged to continue breast-feeding.¹⁶ We emphasized that emptying their breasts would keep their milk from becoming stagnant and infected. Other pragmatic mothers adamantly insisted on bottle-feeding their babies. When a psychiatric patient had her baby at the hospital, we wondered whether she should be allowed to cuddle

and breast-feed her baby. After consulting the psychiatrist I decided to allow her to breast-feed, as it might help psychologically, but to make sure that someone else sit with her.

What about poorly nourished mothers? Should we a their babies to breast-feed? Our answer was "yes". The f tical approach would be to improve maternal nutrition du pregnancy and lactation.¹⁷ There is no evidence that the c position of breast milk in malnourished mothers has a l concentration of protein, fat, and lactose. On the whole, chemical constituency of breast milk is the same in many c tries, whether rich or poor.¹⁸ In one study, it was found the immunoglobulin level in the breast milk of privileged non-privileged mothers in Ethiopia was the same, and also responded to the level found in healthy Swedish mothers.

Some mothers feared they did not have enough breast i during the first few days and would ask that their babie given complementary or pre-lacteal feedings. They had t assured that whatever milk they had was sufficient, since needs of new-born babies are not very great in the beginnin In addition, we explained to them that complementary feed would interfere with lactation and might cause infection allergy, and reminded them that their milk supply would crease if they emptied their breasts by frequent and lo suckling periods. A study has in fact suggested that the us large amounts of formula and the rapid increase in fec volume are important etiological factors in the occurrence

¹⁷ William Cutting, *op. cit.*; D. B. Jelliffe and E. F. Patrice Jelliffe, *op*
¹⁸ David Morley and Margaret Woodland, *op. cit.*; F. A. Oski
J. A. Stockman III, Factors influencing lactation performance in
Gambian mothers, 1980 Year Book of Pediatrics, Year Book Me
Publishers, Inc., London, 1980, pp. 281-286.

¹⁹ H. Hanson et al., *op. cit.*

²⁰ William Cutting, *op. cit.*; M. King, F. King, D. Morley, L. Burgess, an
Burgess, *Nutrition of developing countries*, Oxford University Press,
ford, 1972, pp. 7.1-7.2; Penny and Andrew Stanway, *op. cit.*; P. Verro
J. K. Visakorpi, A. Lammi et al., Promotion of breastfeeding: effe

¹⁶ William Cutting, *Breastfeeding, text with slides*, Foundation for Teaching
Aids at Low Cost, Institute of Child Health, London, 1979; Robert
Buchanan, *op. cit.*; G. J. Ebrahim, *op. cit.*; Penny and Andrew Stanway,
op. cit.

Nutrition Committee of the Canadian Paediatric Society and the Committee on Nutrition of the American Academy of Pediatrics urged that every new-born should be breast-fed unless the child or the mother has a specific physical condition that makes such feeding impossible.¹⁴

And yet in most hospitals, especially in the urban areas, new-born babies are separated from their mothers at birth, confined to nurseries, and initiated to the taste of powdered cow's milk several hours after birth—even before their mothers have a chance to breast-feed them. This is the way we bring children into the world.

Dawning awareness of the need for changes in hospital practices

It was our way at Baguio General Hospital and Medical Center, too, until 1975. The year before, I had had the good fortune of working closely with Professor David Morley, head of the Tropical Child Health Unit of the Institute of Child Health, University of London. Dr. Morley and his colleagues were deeply concerned about the health problems of children in the developing countries. They made me realize that in the issue of breast-feeding versus bottle-feeding, breast is best. They made me see that babies belong with their mothers, not in the nursery, and deserve to be given their mothers' milk, not commercial formula.

This conviction was deepened further during my subsequent travels throughout African and Asian countries, where I saw for myself the extent of the problem of infant malnutrition in relation to bottle-feeding. In Zambia, it is the custom to put a child's most valuable possession on his grave. In one urban cemetery, the graves of countless babies are decorated with empty tins and bottles of commercial infant formula. The babies had died of malnutrition and infection, victims of what a well-known American doctor has termed "the immoral promotion of infant formula".

My training with Dr. Morley was a turning point in my life, came back to the Philippines determined to start my own personal campaign for breast-feeding in Baguio City hopefully, to reach the rest of the country.

But how was I to start? How does one wean hospital administrators, obstetricians, paediatricians, nursery staff, the community itself away from bottle-feeding? How does one break the strong hold that milk companies have on doctors, nurses, and hospital staff? How does one change attitudes and practices? I was ready for controversy and resistance.

Convincing the hospital staff

The first step was to win over the hospital administration. They had to be convinced that breast-feeding is practical and economical. Fortunately, Dr. Keithley T. Santos, the chief obstetrician, was on my side.

Baguio General Hospital and Medical Center is a tertiary hospital with a 350-bed capacity located in Baguio City, in the northern part of the Philippines. Its nursery has 60 bassinets and admits an average of 2200 - 2500 babies a year. New graduates and student physicians tended to keep babies in the nursery, as it had been taught in medical school.

The nursery staff had to be reoriented in the mechanics of implementing breast-feeding and rooming-in. The sight of a breast-fed baby's normal stool initially scared medical and nursing students. Even the resident physicians and nurses sometimes doubted whether the neo-nates had diarrhoea or not, for they were accustomed to seeing the normal stool of bottle-fed infants, which is well-formed and bulky. Normal breast-milk stool, on the other hand, is never formed; it appears only as a stain on the diaper, may be passed out hourly intervals, and may contain mucus and even be slightly green with a sour smell. When lactation becomes established on the third or fifth day, intestinal hurry commonly results in the frequent passage of stool.¹⁵

In the Philippines, one of the lowest breast-feeding rates

A study conducted by the World Health Organization in nine countries to measure the trends in breast-feeding and to identify the related factors revealed that the lowest percentages of mothers initiating breast-feeding were found in the Philippines and in Guatemala.

In each of these nine countries—the Philippines, Guatemala, Chile, Ethiopia, Zaire, Nigeria, India, Hungary, and Sweden—sample groups were chosen from among traditionally rural, urban poor, and urban advantaged populations. The data represented the period 1975-1977. In the Philippines, the trend away from breast-feeding seemed to be pronounced throughout the urban community. The data showed that one-third of the mothers in the area sampled who came from economically advantaged backgrounds never tried to initiate breast-feeding, while in the urban poor community one-sixth of the mothers interviewed indicated that they had never breast-fed. Furthermore, 27% of the mothers from the urban economically advantaged group, 9% of those from the urban poor, and 41% of those from the rural population were found to have been given free milk samples while in the hospital.²

¹ National Nutrition Council, *The Philippine Nutrition Program 1974-1979, Accomplishment Report of the Commission*, Philippine Government Printing Press, 1974, pp. 1-2; *id.*, *The Philippine Nutrition Program 1978-1982, Accomplishment Report of the Commission*, Philippine Government Printing Press, 1978, pp. 1-2.

Growing concern over the decline in breast-feeding

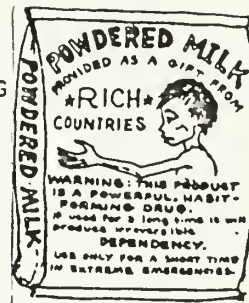
In the Philippines, the practice of breast-feeding is thus the decline, while in the United States and Europe, on the other hand, mothers are going back to breast-feeding. There is growing concern in the developed countries for the well-being only of their children, but also for that of the children of Third World.

Why is this so? First of all, we all know that infant formula to be used safely, calls for access to a pure water supply, method of sterilization, and refrigeration; for literacy to be able to read and understand exacting instructions; and for sufficient income to buy adequate amounts of the product. For many people in the developing world, however, the hygienic conditions necessary for proper use just do not exist. Their water is unclean, the bottles are dirty, the formula is diluted to make it last longer than it should. What happens? The baby is fed contaminated mixture and soon becomes ill with diarrhea which leads to dehydration, malnutrition, and, very often, death. Surely our children deserve a better start in life.

UNIT II

INFANT FORMULA IN SMALL COUNTRIES

1. WOMEN ARE HAVING LESS CHILDREN. THERE ARE NOW FEWER BABIES IN THE WESTERN COUNTRIES. FACTORIES MAKING MILK FOR BABIES ARE LOOKING FOR COUNTRIES TO SELL THEIR MILK. COMPANIES LIKE CARNATION, NESTLE, BORDENS, ROSS LABORATORIES, ETC. HAVE FOUND NEW MARKETS IN THE POOR COUNTRIES.
2. NO MORE THAN TEN PERCENT (10%) OF MOTHERS HAVE ANY REAL NEED FOR BABY FORMULA. THESE ARE THE MOTHERS WHO CANNOT BREAST-FEED. SO THE MILK FACTORIES DID A SALES CAMPAIGN TO CONVINCe THE OTHER NINETY PERCENT (90%) THAT FACTORY MADE BABY MILK FORMULA IS SCIENTIFIC AND HEALTHY; BREAST FEEDING IS NOT MODERN.
3. THESE SALES CAMPAIGNS WERE VERY, VERY SUCCESSFUL. MOTHERS WHO CAN EASILY BREAST-FEED THEIR BABIES ARE NOW GIVING BABIES THE IMPORTED BABY FORMULA. THE PROBLEM IS MUCH MORE SERIOUS THAN JUST PUSHING THE HIGH PRICED FORMULA.
4. TO USE INFANT FORMULA SAFELY, THEY NEED PURE WATER AND A REFRIGERATOR. THE POOR DO NOT HAVE THESE. THEY ALSO NEED A WAY TO STERILIZE BOTTLES AND NIPPLES. FUEL COSTS MONEY. WITHOUT A REFRIGERATOR, THE BOTTLE OF MILK SITS IN HOT, HUMID ROOMS. THE RESULT IS DIARRHEA WHICH LEADS TO MALNUTRITION.
5. FEEDING THE BABY IMPORTED BABY MILK CAN COST OVER 80% OF THE PARENTS' TOTAL INCOME. TO MAKE THE FORMULA POWDER LAST LONGER, MANY IGNORANT MOTHERS OR RELATIVES OVER-WATER THE FORMULA. WHEN THERE IS NOT ENOUGH MILK POWDER, THE BABY IS NOT GETTING ENOUGH



UNIT II, HO # 6.

AHM, RICE WATER FOR SICK BABIES

Most countries have special foods for sick and recuperating babies and children. In Asia, one such traditional food is ahm. This is the liquid from overboiled rice gruel. In the olden days, rice was not as white as it is today. Ahm was then made from rice with some brown coating and germ intact. The brown coating of the grain is rich in vitamins, especially the scarce B-vitamins.

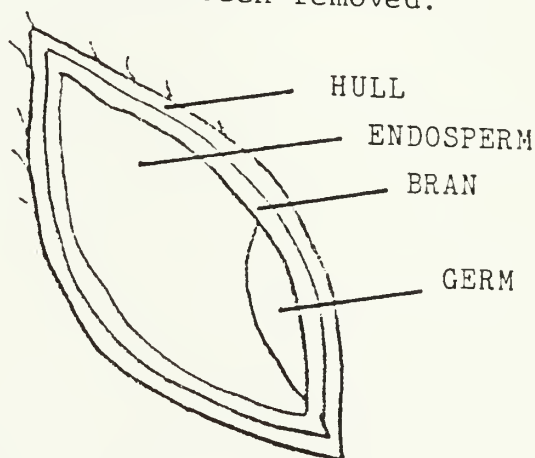
These days, available rice in Asia is often imported, overmilled, completely white, and unenriched. The feeding of ahm made from this kind of rice may be responsible for morbidity in children. At a time when the child is sick and needs all the nourishing foods, all it gets is ahm, the watered down starch, almost devoid of all nutrients.

It is therefore important that the sick child be encouraged to eat other foods--food that the rest of the family is eating. The idea that sick children should not be given "real food" is a long standing myth that should be questioned. Dr. Nevin Scrimshaw of the Massachusetts Institute of Technology had suggested that a simple combination of soybean milk and leafy proteins have been found effective not only in preventing malnutrition, but also in treating protein deficiency which recuperating poor Oppressed Country children are suffering from.

Brown rice cannot be shipped for long ocean voyages at room temperature without spoiling. Overmilled, completely white rice is the only kind that can be shipped across oceans for long periods without spoiling. The reason it does not spoil is that it no longer has the life-giving nutrients that sustain bacteria and bugs. The brown coating and germ of the grain attract mold and insects because it is highly nutritious. The bacteria and insects live and multiply in slightly milled rice.

In the Philippines, many people suffer from beri-beri a thiamine-deficiency disease. The brown coating of rice is rich in thiamine. If only the millers of rice would not remove all of the brown coating and germ of rice, the people are less likely to suffer from beri-beri. These people are all rice eaters, but they are eating white rice. Slightly milled rice is not readily available and many among white rice eaters are thiamine-deficient.

In my youth, it was normal to eat rice with specks of brown. This was the undermilled, nutritious rice. Then the Philippines started importing snow-white rice, called California Rice. It was status symbol to eat this very white imported rice. As with all status symbol, soon the poor were demanding snow-white rice too. Even the local millers started duplicating this very white rice. All the rice in the market looked like California Rice. No one know whether the white rice is local or imported. The one sure thing is that all the good nutrients on the outer coating of the rice has now been removed.



The bran layer (A) contains fiber, B-vitamins, and iron. The endosperm (B) is the white interior which consists mainly of starch and a small amount of protein. The germ (C) contains protein, fat, minerals specially iron, thiamine and other B vitamins and vitamin E. The hull is the tough outermost coating that humans cannot digest. Rice with the bran intact, given the same circumstances will spoil in storage much sooner than the white rice. Well overmilled white rice will not spoil for a long time. Bacteria and insects will survive and multiply in undermilled rice with the bran intact.

FOOD	CALORIES	PROTEIN (GM)	TOTAL FAT (GM)	SATD (GM)	POLY (GM)	FOLY (GM)	CARBO-HYDRATE (GM)	CRUDE FIBER (GM)	VITAMIN A (IU)	THIA-MIN (MG)	RIBO-FLAVIN (MG)	NIACIN (MG)	VITAMIN C (MG)	CALCIUM (MG)	PHOS-PHORUS (MG)	IRON (MG)	SOD-IUM (GM)	POTA-SH (GM)	CHOL (GM)
PASTA, TOMATO, CHEESE																			
5.3 cups pasta cooked	821.	25.2	3.0	0.0	0.0	0.0	170.2	1.2	0.	1.0	.4	8.1	0.0	59.2	370.	6.7	.007	.451	0.000
1 lb can tomato puree	022960	177.	.9	0.0	0.0	0.0	40.4	1.8	7258.	.4	.2	6.4	149.7	59.0	154.	7.7	1.810	1.932	0.000
1 cup onion diced	014121	65.	.2	0.0	0.0	0.0	2.8	1.1	.68.	.1	.1	.3	17.0	45.9	61.	.9	.017	.247	0.000
3 cloves garlic	010290	12.	.0	0.0	0.0	0.0	23.9	0.0	0.	0.0	0.0	0.0	1.4	2.6	18.	.1	.002	.048	0.000
2 tablespoons sugar	022300	92.	0.0	0.0	0.0	0.0	23.9	0.0	0.	0.0	0.0	0.0	0.0	0.0	0.	0.	.000	.001	0.000
2 tbsps Sunflower oil	804040	240.	0.0	27.2	2.7	10.9	0.0	0.0	0.	0.0	0.0	0.0	0.0	0.0	0.	0.	.000	0.000	0.000
4 oz mozzarella	801026	323.	22.3	24.8	15.1	.9	2.5	0.0	909.	0	.3	.1	0.0	593.5	426.	.2	.428	.077	0.090
8 oz tofu	101026	290.	32.4	15.9	0.0	0.0	5.0	1.2	0.	.2	.1	.2	.9	121.1	429.	7.3	.015	0.000	0.000
3 tsp bouillon powder	004340	7.	1.2	.2	.1	0.0	.3	0.0	0.	0.0	0.0	0.0	0.0	0.0	0.	0.0	1.440	.004	.005
##SUM##	2028.	91.9	72.1	17.9	11.8	259.9	3.9	3235.	1.7	1.2	1.2	15.2	168.9	881.4	1458.	22.9	3.720	2.782	.094

PERCENT OF CALORIES

PROTEIN	18.13	FOLATE	.316
FAT	32.00	B6	1.0
CARBOHYDRATE	51.25	B12, MCG	.8
SUGARS	3.29	ZINC	3.1

P:S RATIO .66
 CA:P04 RATIO .60

NIACIN EQUIVALENTS = 33.4 MG.

SUBJECT = DAI
 DAY = 6

FOOD	CALORIES	PROTEIN (GM)	TOTAL FAT (GM)	SATD (GM)	POLY (GM)	FOLY (GM)	CARBO-HYDRATE (GM)	CRUDE FIBER (GM)	VITAMIN A (IU)	THIA-MIN (MG)	RIBO-FLAVIN (MG)	NIACIN (MG)	VITAMIN C (MG)	CALCIUM (MG)	PHOS-PHORUS (MG)	IRON (MG)	SOD-IUM (GM)	POTA-SH (GM)	CHOL (GM)
5.3 cups pasta cooked																			
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1 lb tomato puree	022960	177.	.9	0.0	0.0	0.0	40.4	1.8	7258.	.4	.2	6.4	149.7	59.0	154.	7.7	1.810	1.932	0.000
1 cup onion diced	014121	65.	.2	0.0	0.0	0.0	2.8	1.0	.68.	.1	.1	.3	17.0	45.9	61.	.9	.017	.247	0.000
3 cloves garlic	010290	12.	.0	0.0	0.0	0.0	23.8	.1	0.	0.0	0.0	0.0	1.4	2.6	18.	.1	.002	.048	0.000
2 tbsps sugar	022300	92.	0.0	0.0	0.0	0.0	23.9	0.0	0.	0.0	0.0	0.0	0.0	0.0	0.	0.	.000	.001	0.000
2 tbsps Sunflower oil	804040	240.	0.0	27.2	2.7	10.9	0.0	0.0	0.	0.0	0.0	0.0	0.0	0.0	0.	0.	.000	0.000	0.000
4 oz mozzarella	801026	323.	22.3	24.8	15.1	.9	2.5	0.0	909.	0	.3	.1	0.0	593.5	426.	.2	.428	.077	0.090
8 oz tofu	101026	290.	32.4	15.9	0.0	0.0	5.0	1.2	0.	.2	.1	.2	.9	121.1	429.	7.3	.015	0.000	0.000
3 tsp bouillon powder	004340	7.	1.2	.2	.1	0.0	.3	0.0	0.	0.0	0.0	0.0	0.0	0.0	0.	0.0	1.440	.004	.005
##SUM##	2053.	80.6	80.8	32.9	12.7	257.1	3.7	3144.	1.6	1.5	1.5	15.1	168.0	1353.8	1455.	15.8	2.693	2.853	.179

PERCENT OF CALORIES

PROTEIN	15.70	FOLATE	.323
FAT	35.44	B6	1.0
CARBOHYDRATE	50.09	B12, MCG	1.2
SUGARS	3.74	ZINC	3.6

UNIT II

FOOD	CALORIES	PROTEIN		FAT		CARBO- CRUD		VITAMIN THIA-		RIBO-		NIACIN		VITAMIN C		CALCIUM		PHOS-		IRON		SOD-		POTA-	
		(GM)	(KCAL)	(GM)	(GM)	(GM)	(GM)	(IU)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)
ORIENTAL FRIED RICE																									
4 cups rice br.cold	928.	19.5	4.7	0.0	0.0	198.9	.3	0.	.7	.2	10.9	0.0	93.6	569.	3.9	0.000	.546	C							
1/2 c onion chopped	32.	1.3	.1	0.0	0.0	7.4	.5	34.	.0	.0	.2	8.5	23.0	31.	.4	.009	.133	C							
1/2 lb pork diced	658.	33.8	56.0	20.2	5.0	0.0	0.0	0.0	1.7	.4	9.3	0.0	20.4	404.	5.4	.123	.573	C							
2 tbsp soybean	23.	3.1	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	1.2	0.0	6.8	76.	1.0	2.059	.129	0							
3 tsp bouillon pow.	7.	1.2	.2	.1	0.0	.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 cloves garlic	8.	.4	.0	0.0	0.0	1.8	.1	0.	.0	.0	.0	.9	1.7	12.	.1	.001	.032	C							
1 cup mushrooms	20.	1.9	.2	0.0	0.0	3.1	.6	0.	.1	.3	2.9	2.1	4.2	81.	.6	.011	.290	C							
SSUNES	1676.	63.2	61.2	20.2	5.0	214.5	3.5	34.	2.6	1.0	24.6	11.5	149.7	1173.	11.4	3.644	1.709								
PERCENT OF CALORIES																									
PROTEIN	15.08																								
FAT	32.85																								
CARBOHYDRATE	51.19																								
SUGARS	1.70																								
P:S RATIO	.25																								
CA:PO4 RATIO	.13																								
NIACIN EQUIVALENTS	= 37.0 MG.																								
SUBJECT= DAI																									
DATE= 8																									

FOOD	CALORIES	PROTEIN		FAT		CARBO- CRUD		VITAMIN THIA-		RIBO-		NIACIN		VITAMIN C		CALCIUM		PHOS-		IRON		SOD-		POTA-	
		(GM)	(KCAL)	(GM)	(GM)	(GM)	(GM)	(IU)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)
4 cups rice br.cold	928.	19.5	4.7	0.0	0.0	198.9	2.3	0.	.7	.2	10.9	0.0	93.6	569.	3.9	0.000	.546	C							
1/2 c onion chopped	32.	1.3	.1	0.0	0.0	7.4	.5	34.	.0	.0	.2	8.5	23.0	31.	.4	.009	.133	C							
8 oz tempeh diced	356.	44.2	17.0	0.0	0.0	19.3	3.2	95.	.6	1.5	5.7	0.0	322.1	544.	11.3	0.000	0.000	C							
2 tbsp sunfr. oil	240.	0.0	27.2	2.7	10.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.1	0.	0.0	0.000	0.000	C							
2 tbsp soybean	23.	3.1	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	1.2	0.0	6.8	76.	1.0	2.059	.129	C							
3 tsp bouillon pow.	7.	1.2	.2	.1	0.0	.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 cloves garlic	8.	.4	.0	0.0	0.0	1.8	.1	0.	.0	.0	.0	.9	1.7	12.	.1	.001	.032	C							
1 cup mushrooms	20.	1.9	.2	0.0	0.0	3.1	.6	0.	.1	.3	2.9	2.1	4.2	81.	.6	.011	.290	C							
SSUNES	1615.	71.6	49.4	2.8	10.9	233.8	6.7	129.	1.5	2.0	21.0	11.5	451.4	1314.	17.3	3.519	1.136								
PERCENT OF CALORIES																									
PROTEIN	17.73																								
FAT	27.52																								
CARBOHYDRATE	57.90																								
SUGARS	1.76																								
P:S RATIO	3.89																								
CA:PO4 RATIO	.34																								
NIACIN EQUIVALENTS	= 34.7 MG.																								

UNIT II

STUDIES IN PHILIPPINE POLITICAL ECONOMY, BY E. M. VILLEGAS,
SILANGAN PUBLICATIONS, MANILA, 1984.

The Offshore Banks

At this point, let us examine closer the significance to our economy of the coming of the offshore banks. Some over-enthusiastic minds see in the establishment of offshore banks in the country a prelude to the pouring in of a tremendous amount of foreign capital into our economy. For is it not, these people argue, the CB requirement for a multinational bank before it can have a branch in the Philippines is that the latter must have at least a starting capitalization of \$1 M. Soon the country will have abundant dollar reserves and be transformed into a financial center in this part of the world as envisioned in the grand plan.

It is to be pointed out that it is the surplus capital of the big multinationals which will be funding their offshore banks, and through loans to their affiliate and other foreign companies in the Philippines, these surplus capital can amass an exceedingly high rate of profit because of the very low labour cost in our country. This rate of profit will be higher than what investment would gain in the home bases of the multinationals. No longer contented with just borrowing from private local sources, foreign investors have invaded our banking and financing system. This way they can have direct access to the money supply in our economy through tapping the savings of our people.

With the lifting of the ban of entry of foreign investment in the banking and financing field in our country, there is no halting the institution of interlocking interests in these business areas with the manufacturing and commercial ventures of foreign nationals in the Philippines. In these various tie-ups of foreign corporations in the Philippines, a more thorough and systematic utilization of the country's capital resources will, therefore, be insured which in the long run is a sucking of the lifeblood of our economy.

The Complementation Scheme

Southeast Asia is also witnessing the establishment of so-called complementation schemes by the multinationals. Such schemes would make

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different developing countries manufacture different components of a heavy durable product, e.g., a car. For instance, in the Philippines we have the Ford car body stamping plant in Mariveles which forms only a part in the entire process of production of Ford cars.

The farming out of the different stages of a production process among the various developing nations of Southeast Asia guards against any attendant political crisis in any of these countries which may endanger foreign investments. If a developing nation decides on a policy of nationalization what would then be affected is merely a component of a whole system whose dismantling cannot entirely hurt a multinational venture.

The establishment of a particular stage of production in a specific region is also dictated by the relative advantage of drawing a certain raw material which may be abundant in that area and needed in the manufacture of a heavy product. The processing and fashioning of raw materials in its country of origin as parts of a heavy product will avoid huge transportation costs for a foreign company if these materials were instead exported to its mother company back home. To give consternation to those who advocate dependence on foreign technology is the fact that the complementation scheme of the multinationals will always bring to a developing nation an incomplete technology as it is only a step in the making of a heavy product.

The ASEAN

Some people have placed high hopes in the creation in August 8, 1967 of the ASEAN organization, composed of the Philippines, Thailand, Malaysia, Singapore and Indonesia. These people expect in the ASEAN declaration calling for preferential trade among its member states a strengthening of the organization's economic bargaining stance vis-a-vis the industrialized countries. This ASEAN posture it is said is a condition for the autonomous national development of every ASEAN nation. But one must first examine closely the various communiqués issued by ASEAN to realize the full implications of its economic policies.

In the Declaration of Accord of ASEAN ratified on Feb. 6, 1976, it is asserted as a major reason for close economic cooperation among its member states the so-called world commodity problem which the organization believes is primarily due to an erratic international trading and monetary system. In effect, what ASEAN ministers are unhappy about is the instability of world market prices for their basic commodities, like sugar, copper, rubber, tin, vegetable oil, hard fibers and lumber, all raw materials and

FOREIGN INVESTMENTS AND THE MNCs IN THE PHILIPPINES 27

processed agricultural products. ASEAN had earlier stressed its positions on the world commodity problem in a press statement issued after its eight Ministerial Meeting in Kuala Lumpur from May 13-15, 1975:

"... The Ministers (the various foreign ministers of the ASEAN nations) were of the opinion that international measures dealing with the commodity problems, such as arrangements for the stabilization of commodity prices constituted an important part of the main world challenge, namely the need to restructure the present international economic order. They endorsed the unanimous view of the Conference of Developing Countries on Raw Materials in Dakar that the building of a new international economic order should begin with the improvement of the commodity situation. In this connection, the Ministers reaffirmed the inter-dependence of ASEAN countries in their external economic relations as well as among themselves."²⁹

And again in the joint communique after this particular meeting:

"The meeting noted the urgency of formulating an ASEAN strategy for raw materials in view of the current international situation. It welcomed the early convening of the Meeting of the ASEAN Ministers Responsible for Planning to consider the mechanics of such a strategy."³⁰

When we find out that one of the main objectives of ASEAN is also to include under the areas of industrial cooperation "complementation programme on fertilizer, motor vehicles, agricultural machinery, salt-based industries and the rubber industry."³¹ the significance of its economic policy in relation to the developed nations become clearer. As it is the multinational corporations which have extensive investment in and control of emerging complementation schemes in the various Southeast Asian countries, the promotion of such economic projects would defeat self-reliant industrialization in the ASEAN member states. It is revealing to note that ASEAN programs are being complemented by the private sector, specially the so-called ASEAN Chamber of Commerce and Industry which has tie-ups with foreign capital and which has established ten regional industry clubs to promote industrial complementation schemes.³²

The establishment of ASEAN has consequently pleased the capitalist nations. The US has held a consultative meeting on economic matters with ASEAN ministers in Manila on Feb. 24, 1977 and drawn up multilateral agreements with them on private investment, commodity issues, and trade negotiations, among other things.³³ Canada has indicated areas of cooperation with ASEAN along the following: forestry and reforestation, agricultural research, mineral development and survey, including oil, oceanography and transportation techniques, such as shipbuilding and port development.³⁴ Japan, on her part, has singled out rubber as a preferred product and had graciously extended financial assistance for the putting up of a tire-testing and development laboratory for synthetic rubber in ASEAN.³⁵

STUDIES IN PHILIPPINE POLITICAL ECONOMY

Japanese multinationals have also recently entered into the Philippine fishing industry with their construction of a fish port in Navotas, Rizal and their subsequent authorized launching of large fishing and canning boats into the rich Philippine waters. Let it be known that because of their peculiar style of draining the resources of the sea, Japanese fishermen have been expelled from the waters of Canada, California and the Soviet Union. There may come a time when fishes will become scarce in our market as the bulk of these would have been exported by the big Japanese fish canning boats on our waters.

What we are then witnessing in ASEAN is the perpetuation of the old economic structure detrimental to the welfare of the masses in the Southeast Asian developing nations but beneficial to imperialism. It is the continuation of the international division of labour so dear to the imperialists where the less-developed countries produce for the basic requirements of the factories and firms of the industrialized nations in exchange for mere pittance of technological aid and capital.

The Cartels

A development in the world economic scene today is the joint ventures, called cartels of the multinationals, for instance, Toyota with Ford, and the Italian Fiat with the French Simca. In the Philippines we have the tie-up of Toyota and three giant American automobile corporations, Ford, Chrysler and General Motors.

The big firms of the world have deemed it to their mutual advantage to avoid direct and fierce competitions, that may lead to their own undoings, and have initiated a moratorium to better exploit the economies of the developing nations through control of production and price fixing. We say a moratorium because ever simmering under these cartels of the multinationals are the latent contradictions of the different capitalist economies, e.g., the US's versus West Germany's, which economies in the long run have conflicting interests. In the meantime, the developing nations are the special losers in these mergers and combines of the multinationals as amore effective and organized exploitation of their patrimonies is made possible.

A Final Reminder

The lot of enduring other nations partake of a great bulk of our economic resources and witnessing the flight of a tremendous amount of capital from our shores are among the problems attendant to foreign investments in our country. But we must realize that the natural wealth of our land has a limit. Even our copper concentrates, considered the most abundant in the

FOREIGN INVESTMENTS AND THE MNCs IN THE PHILIPPINES 29

world today and vital to the electric industry, may soon run out. Our times are crucial times. We cannot afford to tarry long at the crossroad if we do not wish to bequeath to the coming generations of Filipinos an existence full of iniquities which may be amidst a barren land.

SUPPLEMENT

PARTIAL LIST OF SEC CLASSIFIED DOMESTIC CORPORATIONS
WITH FOREIGN EQUITY

Corporation	Foreign Stockholders	%
Atkins, Knoll & Co.	American	100
Abbott Lab. (MNC)*	American	99.97
Ancient Equipment Corp.	American	100
Alcon Lab.	American	99.5
Atlas Copra (Phil.)	Swedish	99.95
Atlas Consolidated Mines	American	48.08
ASEA Phil. (MNC)	Swedish	100
Ayent Lab. (MNC)	American	99.997
Atlantic Gulf (MNC)	American	35
Aircon Incorporated	American	99.992
Arbor Apres (Day-old chicks) (MNC)*	American	52
Allied Thread Co., Inc.	British	99.98
American Steamship	American	99.992
Borden Chemical	American	98
Benguet Consolidated	American	69.4
BANCOM	American	29
BF Goodrich (MNC)	American	55.91
Bristol Lab (Phil.) (MNC)	American	99.92
Bristol Myers (Manila) (MNC)	American	99.92
Bataan Pulp and Paper Mills, Inc.	American	76.89
California Manufacturing Co. (MNC)	American	99.99
Chrysler Inc. (Phil.) (MNC)	American	99.99
Caltex Phil. (MNC)	American	99.99
Consolidated Phil. (MNC)	American	51
Columbian Motors	American	60
Connel Bro. (MNC)	American	100
Colgate Phil. (MNC)	American	100
Cebu Rattan Co., Inc.	American	94.5
Dole Phil. (MNC)	American	99.99
DART Phil. Inc.	American	99.7
Diesel and Magnets Service Co.	American	97.85

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Equipment Credit Corp.	American	99.99
Edward J. Neil Co.	American	79.95
Engineering Equipment	American	92
Esso Phil. (MNC)**	American	100
Filipinas Synthetic Fiber Corp. (MNC)	American	40
Filoil	American	53.95
Felman Enterprises (Commercial Service)	Japanese	30
Ford Phil., Inc (MNC)	American	100
Firestone Tire (MNC)	American	75.16
Filipro Inc. (MNC)	Swedish	99.98
Fuller Paint (MNC)	American	40
Gould Pumps (MNC)	American	100
Gravenport Inc. (MNC)	American	99.98
G.D. Searle (Phil.)	American	99.99
Gelmart Industries (MNC)	American	99.99
General Electric, Phil. Inc. (MNC)	American	100
International Assurance Co. (MNC)	American	99
Inhelder Corp (drugs) (MNC)	American	99.99
Ingesoll Rand Equipment (Phil.) (MNC)	American	99
Philippine Insurance	American	100
Johnson & Johnson (MNC)	American	99.3
Kimberly Clark (MNC)	American	96
Kowa Company (MNC)	Japanese	100
Koppel Inc. (airconditioning) (MNC)	American	100
Lepanto Mines	American	30
Merck Sharp (MNC)	American	99.99
Manila Cordage Co.	American	96
Mobil Oil (MNC)	American	99.99
Mennen Phil. (MNC)	American	97
Muller and Phillips (MNC)	American	100
Manila Gas Corp.	American	40
Macondray Phil. (MNC) (commercial, real estate)	American	99.99
Minnesota Phil. (MNC)	American	99.99
Oceanic Phamacal Inc. (MNC)	American	99.91
Ovaltine (MNC)	Swiss	74
Pepsi Cola (MNC)	American	99.99
Phil. Handicraft Inc.	American	99.04
Pellet Co. (MNC)	Japanese	90
Phil. Rubber	American	49.90

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Phelps Dodge Phil. Inc. (MNC)	American	96
Philippine Long Distance Co.	American	38.8
Philippine Education Co., Inc.	American	94.75
Park Davis & Co. (Pharmaceutical (MNC)	American	100
Phil. Appliance Corp.	American	57
Phil. Crafts, Inc.	American	92
Pacific Investment Co.	American	52.70
Phil. Aviator Co.	American	88
Philippine American Life Insurance	American	98
Precision Electronics Co. (MNC)	Japanese	40
People's Agro Mfg. Inc. Corp.	American	99.87
Reynold Phil. (MNC)	American	51
Shulton Inc. (MNC)	American	99.99
Shell (MNC)	British	100
Standard Phil. (bananas) (MNC)	American	68
Tropical Commercial Co., Inc.	American	80
Theo H. Davis (MNC)	American	91
Union Carbide Phil. (MNC)	American	93
United States Engineering Corp.	American	40
Wrigley Phil., Inc. (drugs) (MNC)	American	99.99
Warner-Chilcott (cosmetics) (MNC)	American	99.99
Wagerhaueser, Phils. (logs) (MNC)	American	99.94
Yupanco-Yamaha, Music Corp. (MNC)	Japanese	40
Yamamoto Sangyo Co., Ltd. (MNC)	Japanese	100

Source: Handwritten survey report of all corporations in the Philippines done by SEC in 1972, SEC Statistical Section.

**Esso sold out to Petrophil, a government corporation, after martial law.

*Multinational Corporation

UNIT II

LECTURE

SOYBEAN MEAT FOR PROTEIN

In a television interview, the Chief Executive Officer of Archer Daniel Midland Company, Iowa, the largest soybean product exporters in the US, made the statement that "the miracle of the soybean is that it produces protein right out of the ground... being manufactured into highly palatable meat analogs and meat extenders with nutritional quality certainly equal to and in some respects even superior to that of animal meat, at substantially lower cost than animal protein."

Soybeans is nothing new. The Chinese have cultivated them for 4000 years and they are a staple of most of Asia's diet. Plants manufacture protein in significant quantity, and plants are an indispensable protein source, whether used directly or converted by animal, whose meat most humans are in the habit of consuming.

US food scientists and manufacturers have finally accepted that a plant protein diet is nutritionally sound when combined with supplements of the B-vitamins. There remains no valid reason for frightening people into eating copious quantities of animal meat for fear of protein deficiency.

UNIT II

CONTENT PROCESS

9:00 am. The homework was to write down one or more ideas to pass on to their elementary school pupils. The following are a few examples of learnings from Friday's presentations appropriate to pass on to elementary pupils:

1) Learning to introduce each other and saying pleasant things about the other. Among the poor, especially women, self-belittlement is typical. To be introduced to another, and to have one's assets and credentials acknowledged is empowerment.

2) "Are there any questions?" "Can you help clarify the topic?" Recognizing the ability of elementary pupils to help conduct the classroom contributes to the pupil's self-esteem.

3) Pupils can understand the theory behind why people eat what they do, and not eat what they don't eat.

There are other learnings from yesterdays discussions which hopefully were recognized by the Attendees.

Soybean Products. It is important to stress that when we talk of meat analogs (textured vegetable protein) we in 1985 no longer are talking about tofu burgers that some people understandably gag on. The modern day fake meats (chicken, shrimp, beef, ham, even crab's legs) are so realistic that the law on truth-in-menu is often

circumvented. Restaurant clients simply are unable to detect the real from the soybean product, not even by mouthfeel. The chemical (artificial) flavors of seafoods and dairy such as cheese, butter and fruits have also been perfected. A piece of cardboard can be artificially made to smell and taste just like strawberry with fewer chemical compounds than the real thing. At a restaurant, when they serve me what they call in the menu chicken salad, I take the largest hunk of chicken and by ways I learned how to, I subject the "chicken" piece to a rigid test. When I am certain that it is soybean chicken, I call the manager and request that they give credit where it is due, and call it soybean chicken salad. Just think of how many unsuspecting customers have been fooled by that "chicken" salad.

Fake meats reached this level by the special process, extrusion, which means that thread-like strands are made from soybean liquor, and these soggy strands are packed and sliced, giving the exact appearance and mouthfeel of meat strands. But the real value of fake meats is the high protein content from the soybean. The topic of Vitamins B6 and B12 is another issue. Otherwise the fake has more redeeming values than the real:

- 1) It has no animal, high cholesterol fat.
- 2) Soybean (fake) meat is far cheaper than the real meat.
- 3) Its protein content is higher than red meat, and may also be higher than chicken meat.

9:45 - 10:00 Yoga Breathing: The value of Yoga-style deep breathing has been recognized way before anyone ever thought of jogging, aerobics and slimnastics. Most people's habit of shallow breathing--dog pant--makes oxygen the most under-utilized natural resource of the body. One learns the conscious use of air through yoga. Deep inhalation, and the real yoga part--exhalations with different sounds (hahhh, whoooo, hmmmm, etc.) Different sounds vibrates different sections of the thorax. This vibrations help cell and tissue tone. You don't believe? Trust me! Would I lie to you? An explanation of Pranayama, the conscious use of the respiratory system, is explained in HO # 4.

The Washington Post article on a reception which served only meat analogs is proof enough of the acceptability of soybean meat. If it is good enough for the Washington senators and diplomats, it must be good enough.

Between 10:30 to 12:30 will be used up doing experimental cooking with meat analogs. The finished dishes will be shared with lunch guests, either family or friends of Attendees.

1:30-2:00 Facilitator will spend a few minutes for stressing certain arguments on the Issue Papers. Three groups will be formed in the usual count-off manner. Each group will discuss one topic: 1) Cassava, 2) Ahm, 3) Baby Formula. A leader/presenter will be chosen. Each of the three groups will create a schema on the causes and cost of

these food on the consumer.

2:00-2:30. One presenter will give an oral summary of the group's topic. The rest will write down on a card how the topic and presentation affected him/her and how what was said brought about his/her past experience whether pleasant or unpleasant. After each of the three speakers have given their presentation, each attendee will read what s/he has written on the card. There will be a comment from each attendee on everyone of the 3 topics.

CLING-BOARD. Start with a frame. Four sticks or twigs tied into a frame. Or a piece of cardboard or plywood. Cover one side with a piece of stretched rough cloth (not slippery like silk or satin). This cling-board will serve as a display background for cloth cut-outs. For this project, the frame will be drawn with an any country map, brown rocky mountains on the northern top half, and green grassy plains on the southern half. Cloth cut-outs of farming families are scattered all over, more on the bottom, fewer on the mountains. Also, cloth cut-outs of squares, representing fenced-in multinational plantations will be made. These squares will slowly take over the fertile and choice lands in the southern portion of the map.

A few minutes before 4:00: The cards with the ideas to be passed on to your pupils will be collected. There will be a brief explanation for the next day's HOMEWORK: 1) The Definitions of Terms and Acronyms will be summarized; 2) A two-paragraph outline of a Position Paper on the Green Revolution will be prepared. Read both materials at home.

UNIT II

ACTIVITY RATIONALE

Homework: The need for written homework is just as useful for adult workshops Attendees as for high schools. Students remember to think of the issues when they have to write down even a one sentence homework.

High Protein Meat Analog: One would think that this commodity would be just the answer to the needs of the protein-deficient, impoverished (no money for meat) inhabitants of the Oppressed Country. One would think that the Western food scientists and meat analog manufacturers would be racing to export this badly needed commodity. Not at all. This excellent commodity appears to be a secret being kept from the poor countries. It is not made available to the protein-deficient peoples of the world. Just as soybean "beans" are hard to find in the Oppressed Country markets, but crushed soybeans for animal feed are abundant and readily available.

But don't they want the income from selling meat analogs? No, the food scientists and fake meat manufacturers want the protein deficient peoples of the world to keep consuming the real meat. The meat analog people are the same people who plant soybean for animal feed, one of the biggest export money makers of the US.

A cow will eat 16 pound of soybeans to produce a pound

of steak/meat. It is to the advantage of soybean planters to sell 16 pounds of soybean animal feed to a cattle ranch so that a consumer can eat a pound of meat from 16 pounds of soybean feed. But if the people ate the soybean meat analog, that is one pound of soybean per consumer. The soybean producer will destroy his soybean sales this way. In short, the soybean farmer would like the Oppressed Country people never to know of the high protein soybean fake meat and just continue believing that their only good source of protein are meat and dairy. Is it for the same reason that the Four Food Groups are still pushed in the Oppressed Countries as a nutrition basic.

This fake meat is used in American processed food to bring the cost down. In the US, consumers spend approximately 20 percent of our income on food. In the Philippines, consumers spend 65 percent of their income on food. Possibly, part of the low cost of food is that what Americans are eating is not necessarily the real, expensive things, like meat. If everything in the supermarkets with soybeans were removed, I have evidence to show that the shelves would be almost empty. But these high protein fake meats are definitely not available in countries such as the Philippines. The only TVP available in Manila are the disgusting animal feed quality, smelling foul, and often infested with worms. It is evident that the source of this TVP in the US have no desire to upgrade the quality or

desirability of this commodity. The TVP comes to the country without any requirements for sanitary packaging. And anyone knows that the West know how to package anything well if they want to.

More Yoga: Let me start by answering the reader's unexpressed question. Why Yoga? Why not Jane Fonda's regimen? Yoga, because of a desperate attempt at minimizing the Westamination and Westoxication of the Filipino!

Children and Infant Morbidity from Cassava, "Ahm," and Infant Formula: Globally, there has been an increasing attention given to adult basic nutrition and health education. More and more, the medical profession is recognizing the link between nutrition/diet, debilitation, and behavior. It has therefore become a primary concern of health care professionals to focus attention on dietetics. Good nutrition and its inevitable result, good health may be one of our most valuable under-utilized resources. In the tropical Oppressed Countries, there is a favorable food balance. However, there is a lack of knowledge about the recent phenomenon of eating imported and the phenomenon of vanishing indigenous foods and indigenous farmers. Increased training is needed on the nutritional value of indigenous plants, infant feeding and proper plant protein/nutrient food complementation and supplementation for protein and other nutrients. The link between food and parasitic and other infectious diseases which contribute to

a high rate of mortality and morbidity, is not always taught at a grass root level.

We focus on these three foods which due to lack of information on their nutritional worth, appears to do more harm than good. The readings conclude that these foods lead to debilitation and morbidity for the already undernourished. Although Ahm is what is used in Asia, other Oppressed Countries have their equivalents, such as Ogi in Nigeria. The presenters will show if there is any relationship between the food item, and morbidity in children.

Citizens of Oppressed Countries who come to make the US their new home bring with them their eating habits, both the good and the bad. Most obvious of the bad is their developed taste for US military-type foods: canned corned beef, canned Vienna sausage, hash, chocolates, soda pop, white flour bread (the kind that never rots in the refrigerator).

Cling Boards: For other demonstration purposes and teaching aid, cut-outs of numbers, letters, can be made. These cut-outs will stick to the cloth board (scotch tape and tacks are not always available in the rural areas of Oppressed Countries.)

Flow Chart: A schema is a simple way of depicting the flow or structure of complex theories.

UNIT III, HO# 1.

INDIGENOUS FOODS = BETTER HEALTH, BETTER ECONOMY

WORKSHOP

AGENDA

- 10:00 - 10:30 Pictorial Contexts, Green Revolution: 1) Flow Chart, 2) Puzzle
Circle of Poison
- 10:30 - 10:45 Lecture: Terms and Acronyms
- 10:45 - 11:00 Waker-Upper, Exercise.
- 11:00 - 11:45 Write Issue Paper on Green Revolution relating to personal experience. Conclude with one or two ideas from your Paper which can be passed on to elementary school pupils.
- 11:45 - 12:00 Instructions and model for Food Diary.
- 12:00 - 1:00 Lunch and Networking
- 1:00 - 1:45 Green Revolution. Abstracts of individual interpretations.
- 1:45 - 2:55 Role-Playing. (Characters) Farmer, tractor salesman, money lender, wife, mother, neighbor, etc.
- 2:55 - 3:00 HOMEWORK: Map your barrio half-mile radius of the main church, including the largest residence and the poorest residence.

UNIT III, HO# 2.

INSTRUCTIONAL PLAN

TOPICS

Circle of Poison
 High Yielding Variety and IRRI Seeds
 One-Day Food Recall Diary Model
 Lecture: Definitions of Terms and Acronyms

HAND-OUTS

Agenda for Unit III
 Instructional Plan III
 Green Revolution Conceptual Map
 Green Revolution Puzzle
 Circle of Poison
 HYV IRRI Rice Seeds
 Food Diary Form

HOMEWORK

Barrio map

MATERIALS

Food Diary form
 Graphing paper for map

ACTIVITIES

Role-playing
 Exercise
 Issue Paper writing
 Abstracts of Terms and Acronyms
 Puzzle making

REFERENCES

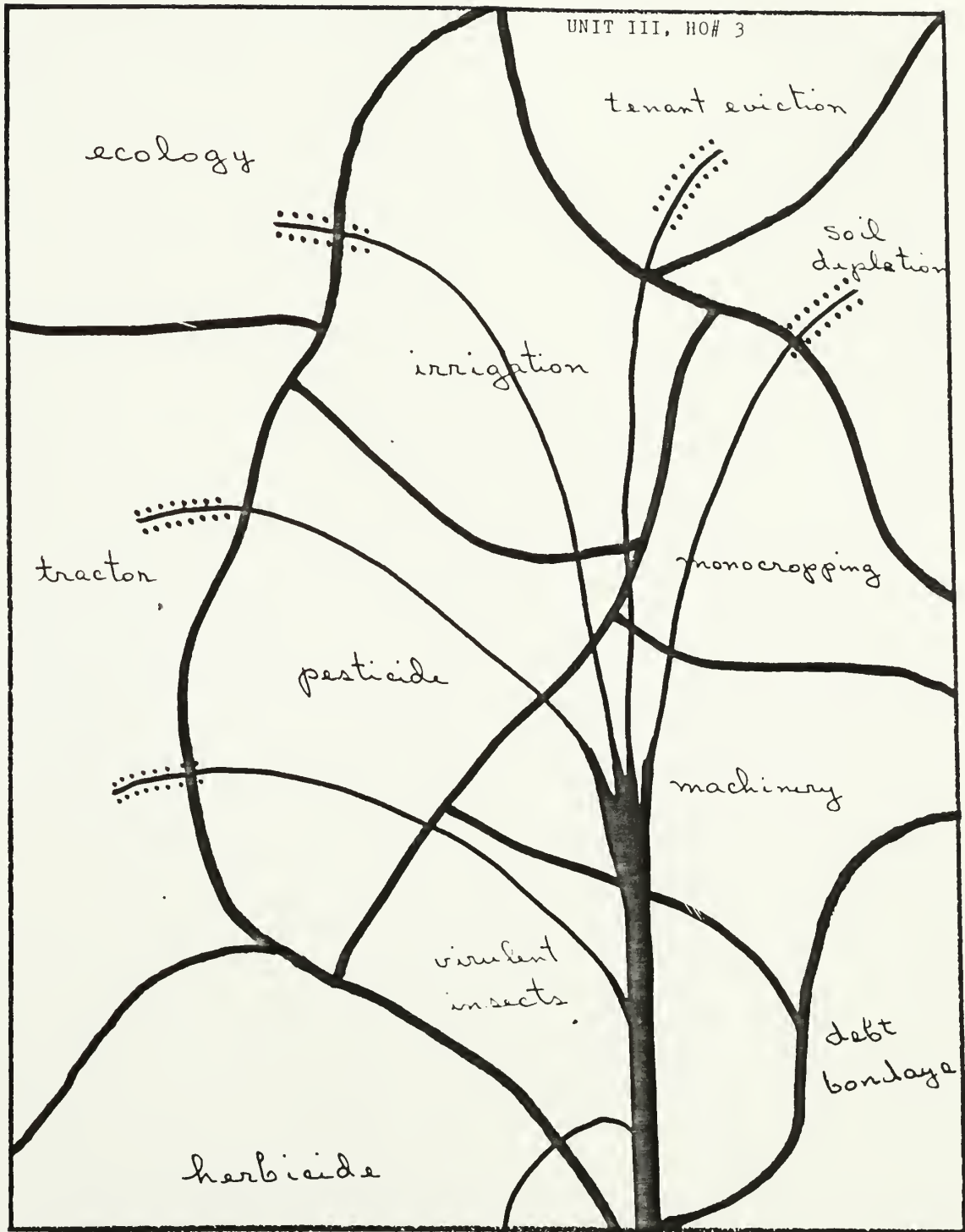
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UNIT III

THE CIRCLE OF POISON

DAVID WEIR & MARK SCHAPIRO

The export of banned pesticides from the industrial countries to the Third World has become a scandal of global proportions. Massive advertising campaigns by multinational pesticide corporations—Dow, Shell, Chevron—have turned the Third World not only into a booming growth market for pesticides but also a dumping ground. Dozens of pesticides too dangerous for unrestricted use in the United States are shipped to underdeveloped countries. There, lack of regulation, illiteracy and repressive working conditions can turn even a "safe" pesticide into a deadly weapon.

According to the World Health Organization, someone in the underdeveloped countries is poisoned by pesticides *every minute*.

But we in the industrialized countries are the victims too. Pesticide exports create a circle of poison, disabling workers in American chemical plants and later returning to us in the food we import. Drinking a morning cup of coffee or enjoying a luncheon salad, the American consumer may be eating pesticides banned or restricted in the United States, but legally shipped to the Third World. The United States is among the world's top food importers and at least 10 percent of our imported food is officially estimated to be contaminated. Although the Food and Drug Administration is supposed to protect us from such hazards, during one fifteen-month period, the General Accounting Office discovered, *half of all the imported food identified by the F.D.A. as pesticide-contaminated was marketed without any warning to consumers or penalty to importers.*

At least 25 percent of U.S. pesticide exports are products that are banned, heavily restricted, or have never been registered for use here. Many have not been independently evaluated for their impact on human health or the environment. Others, like DDT, are familiar poisons, widely known to cause cancer, birth defects and genetic mutations. Yet the Federal Insecticide, Fungicide, and Rodenticide Act explicitly states that banned or unregistered pesticides are legal for export.

In the United States, a mere dozen multinational corporations dominate the \$7-billion-a-year pesticide market. Many are conglomerates with major sales in oil, petrochemicals, plastics, drugs and mining. Not only do they manufacture hazardous pesticides but their subsidiaries in the Third World import and distribute them.

eight banned or heavily restricted U.S. pesticides—parathion, DDT, aldrin, dieldrin, heptachlor, chlordane, endrin and BHC. Ortho is a division of Chevron Chemical Company, an arm of Standard Oil of California. In Ecuador, Shell, Velsicol, Bayer, American Cyanamid, Hercules and Monsanto are the main importers of pesticides banned or restricted in the United States—aldrin, dieldrin, endrin, heptachlor, kepone, mirex and toxaphene. In the Philippines, Bayer and Pfizer import methyl parathion and malathion respectively. The Ministry of Agriculture of Colombia registers fourteen multinationals which import practically all the pesticides banned by the United States since 1970. And in the Philippines, the giant food conglomerate Casils & Cooke (Dole brand) imports banned DBCP for its banana and pineapple operations there.

Worldwide, pesticide sales are exploding. The amount of pesticides exported from the United States has almost doubled over the last fifteen years. The industry now produces four billion pounds of pesticides each year—more than one pound for every person on earth. Almost all are produced in the industrial countries, but 20 percent are exported to the Third World.

And the percentage exported is likely to increase rapidly. The G.A.O. predicts that during the decade ending in 1984, the use of pesticides in Africa, for example, will more than quintuple. As the U.S. pesticide market is "approaching saturation . . . U.S. pesticide producers have been directing their attention toward the export potential . . . exports have almost doubled since 1965 and currently account for 30 percent of total domestic pesticide production," the trade publication *Chemical Economics Newsletter* noted.

Moreover, in Third World fields most pesticides are applied to luxury export crops. Approximately 10 percent of the food imported into the United States contains illegal levels of pesticides, as we pointed out. But that 10 percent figure is deceptive. The F.D.A.'s most commonly used analytical method fails to measure 70 percent of the almost 900 food tolerances for cancer-causing pesticides. (A tolerance is the amount of a pesticide allowed in any particular food product.)

In addition, the F.D.A. frequently finds mysterious, unknown chemicals in imported foods. Government investigators believe that some of these fugitive chemicals come from the millions of pounds of "unregistered" pesticides the Environmental Protection Agency allows U.S. manufacturers to export without divulging any information about their chemical makeup or their effects on people or the environment.

Knowing how little we know, we suspect these statistics from the G.A.O. probably represent only the tip of the iceberg. For example, over 15 percent of the beans and 13 percent of the peppers imported from Mexico during one recent period were found to violate F.D.A. pesticide residue standards. Nearly half the imported green coffee beans contain levels (from traces to illegal residues) of pesticides that are banned in the United States. Freshly cut flowers flow

agricultural exports does not return to improve the lives of the workers through better wages, housing, medical care or schools. Instead, the foreign exchange is most often plowed into luxury consumer goods, urban industrialization, tourist facilities and showy office buildings—all geared to the budgets and tastes of the top 10 to 20 percent living in the cities.

One reason pesticides are used more intensively on export crops than on subsistence food crops is that the multinational corporations which control the production and marketing of exports demand a blemish-free product. Nothing less, they say, will meet the discriminating standards of the consumers in Europe, North America or Japan.

"The Japs eat with their eyes" is how the manager of a Philippine banana plantation explained why they went to such lengths to produce a blemish-free fruit to ship to Japan. In the United States, too, it is estimated that 10 to 20 percent of insecticides used on fruits and vegetables serve only to improve their appearance.

Most people think of multinational food corporations in the Third World as big plantation owners. But over the last twenty years, corporations have become leery of owning land directly. As the U.S. Overseas Private Investment Corporation warns, the possibility of "expropriation, revolution or insurrection [makes] plantations a poor risk." Multinational food producers and marketers such as Del Monte, United Brands (formerly United Fruit) and Castle & Cooke have hit upon a safer strategy—contract farming. Rather than own land directly, these companies now often contract with large local landowners to produce crops for export to consumers in the industrial countries.

A contract farming boom hit southern Mindanao, the Philippines, in the late 1960s. Before that time there were no bananas growing on its rich coastal plains. Small farmers and tenant farmers grew rice and coconuts. Then came the multinational corporations, seeking contracts with local entrepreneurs to produce bananas for the lucrative Japanese market. Within ten years the entire area was transformed: now twenty-one giant plantations cover 57,000 acres, and bananas have become one of the country's top agricultural exports. In order to fulfill their banana contracts, the local entrepreneurs had to push small holders, tenants and "squatters" off the land. (Some of the so-called squatters had worked the land for more than a generation.)

Although the multinational corporations may not own the land, they still call the shots. When a corporation signs a local entrepreneur under contract, it specifies not only the amount of fruit or other commodity to be produced but also the amount of fertilizers and pesticides to assure high yields and blemish-free products. Once locked into the banana-export contract, the plantation owner is totally dependent on the multinational firm. "Money is deducted from the banana grower's earnings to pay for things like pesticides and irrigation," explains Father Jerome McKenna, a U.S. missionary who worked in the area. "It's part of the

pesticide companies for the rest of their lives."

Typically, pesticides are applied at three stages in the banana production process. Workers with heavy tanks strapped to their backs (and no masks or protective covering) routinely spray every tree. Twice a month a pesticide plane passes over the plantation, blanketing everything, including the drinking water supply. A group of banana workers recently petitioned Castle & Cooke to stop heavy pesticide spraying after local studies showed that the workers have dangerously low oxygen levels in their blood, making them more susceptible to disease.

In the packing sheds, the bananas are dumped into long water-filled troughs to remove some of the pesticides. "What bothers me most," says McKenna, "is that these people have very little protection from the chemicals they come in contact with. The women have their hands in the water up to their elbows all day long. They don't wear any gloves. Their only protection is plastic-type aprons they fashion for themselves." Finally, to protect the fruit during its long ocean voyage, women workers in the packing sheds spray every bunch of bananas with a fungus-killing agent.

McKenna checked at two nearby hospitals for reports of pesticide poisonings. One, run by Castle & Cooke, "didn't have any cases." But the other hospital, run independently of the company, had "reports all around of people poisoned by pesticides."

The contract farming system also gives the multinationals an easy way to avoid responsibility for pesticide poisoning. They can simply blame the local plantation owner for being careless.

The examples of cotton in El Salvador or bananas in the Philippines demonstrate that, in large measure, pesticides in the Third World actually feed the well-fed, but endanger the poor and the hungry. Since the mid-1950s, the growth rate of export crops has exceeded that of food crops. Between 1952 and 1967, for example, cotton acreage in Nicaragua increased fourfold while the acreage in basic grains was cut in half. Thus it is hardly surprising that the demand for pesticides in the Third World has soared. What is surprising is how many believe that their principal use is to save crops to feed the hungry.

For us, this investigation has contributed to an important realization: The problem cannot be reduced to that of the "rich countries" exploiting the "poor countries." Such a formulation turns the issue into "them versus us." The majority of people in both the industrial nations and the Third World are victims of the circle of poison. When we understood this, we began to understand our ties with Third World people in a new way. The differences in our material standards of living too often obscure our similarities—a common powerlessness in facing the increasing concentration of private power in the hands of a relatively few global companies: The reality of global corporate power, here reflected in the pesticide trade, forces us to seek solutions involving new ways of working with Third World people for a worldwide redistribution of economic power. We must begin to see Third World people not as a burden or a threat

from Colombia caused a rash of organophosphate poisonings among American florists. And imported beef from Central America often contains pesticide contamination. The G.A.O. has estimated that 14 percent of all U.S. meat is now contaminated with illegal residues, and imports make a significant contribution to that total.

The pesticide residue problem has escalated to such a level that all beef imports from Mexico, El Salvador and Guatemala have been halted by the U.S. Department of Agriculture. Agricultural practices in those countries, including heavy pesticide use on crops next to cattle-grazing land, have backfired on ranchers raising beef for the U.S. market.

Despite the widespread contamination of imported food, F.D.A. inspectors rarely seize shipments or refuse them entry. Instead, a small sample is removed for analysis while the rest of the shipment proceeds to the marketplace—and the consumer. The rationale is that perishable food would spoil if held until the test results were known. But by the time the test results are available—showing dieldrin or parathion or DDT—the food has already found its way into our stomachs. Recalls are difficult.

During one recent fifteen-month period, government investigators found that half of all the imported food identified by the F.D.A. as pesticide-contaminated was marketed without any penalty to the importers or warnings to consumers. Even products from importers with repeated violations were routinely allowed to pass.

U.S.D.A. officials in Dallas, for example, noticed a strong "insecticide-like smell" in a batch of imported cabbage from an importer with a record of shipping contaminated products. Despite the department's complaint, the F.D.A. allowed the cabbage to go to market. A sample that had been removed for testing later revealed illegal levels of BHC, the dangerously carcinogenic pesticide whose registration was canceled in 1976 at the request of the Hooker Chemical Corporation. But it was too late to recall the cabbage. Pepper from a shipment that was sent on to supermarkets turned out to have twenty-nine times more pesticide residue than allowed by U.S. law.

In a world of growing food interdependence, we cannot export our hazards and then forget them. There is no refuge. The mushrooming use of pesticides in the Third World is a daily threat to millions there—and a growing threat to all consumers here.

There are those who argue that we need pesticides to produce more food for the hungry, and that pesticide dangers are a necessary evil—part of the price of averting famine. "We see nothing wrong with helping the hungry world eat," says an executive of the Velsicol Chemical Company, defending his company's overseas sales of Phosvel after it was banned in the United States. "Men will not starve because there are hazards in killing pests," says a Rohm & Haas official making the same point.

But over half, and in some countries up to 70 percent, of the pesticides used in underdeveloped countries are applied

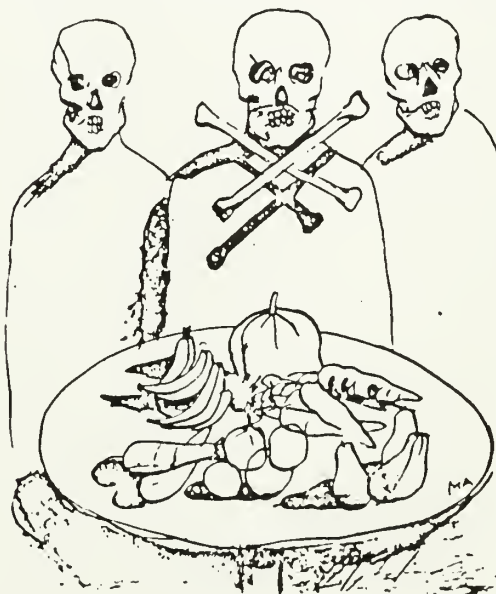
they do not get to eat the crops protected by pesticides.

In Central America, 70 percent of the total value of agricultural production—mainly coffee, cocoa and cotton—is exported, despite widespread hunger and malnutrition there. Cotton is one of the biggest pesticide users. In tiny El Salvador, cotton production absorbs one-fifth of all the deadly parathion used in the world. Twenty-four hundred pounds of insecticides are used each year on every square mile of cotton field in the country. Yet cotton contributes to the global food supply only in processed cattle feed for Latin America's burgeoning beef production, almost half of which is exported to the United States and Europe. The meat remaining for local consumption is eaten by the rich and the middle classes, not by the hungry.

Herbicides like 2,4,5-T and 2,4-D (chemically similar to the infamous Agent Orange) are also used to help clear huge amounts of forest for grazing land in Latin America. Both herbicides leave residues of dioxin in the soil and water. Dioxin, one of the deadliest poisons ever developed, shows up later in birth defects, skin rashes and miscarriages.

In Indonesia, estate-style farms growing export crops—coconuts, coffee, sugar cane and rubber—consume twenty times the quantity of pesticides used by the small holders growing food for local markets. This despite the fact that small holders cultivate seven times more acreage than the estates.

Some might argue that although export crops do not directly feed hungry people, at least the foreign exchange earned benefits them indirectly: It is used to import economic necessities for development. But even the most superficial look at development in most Third World countries belies this assumption. Foreign exchange earned by



UNIT III

New Internationalist, November 1983

**Worth reading on ...
DUMPING**

The Corporate Crims of the Century. By Mark Dowie and staff of *Mother Jones* magazine: 1663 Mission Street, San Francisco, Ca. 94103, November 1979. Award-winning expose of dumping scandals, this important edition played a part in President Carter's move to curb hazardous exports.

Hazards for Export. By Bob Wyrick: *Newsday Inc.*, Long Island, New York 11747, December 1981. A tapestry of dumping cases, interviews with industry spokesmen and Third World victims. Good journalism, combined with on-the-spot interviews, facts and analysis.

Insect or Injury. By Charles Medawar: *Social Audit*, London 1979. Enquiry into the marketing of British food and drugs products overseas and matching this with the needs of low-income consumers.

Bitter Pills - Medicines and the Third World poor. By Diana Melrose: *Oxfam Public Affairs Unit*, 1982. Well-researched study of the drug industry and the Third World, also looking at health policy initiatives in Bangladesh and other countries.

Circle of Poison - Pesticides and Peoples in a Hungry World. By Weirand Mark Schapiro: *Institute of Food and Development Policy*, 2588 Mission Street, San Francisco, Ca 94110, 1981. Follows the globe-circling trail of sickness and death resulting from use of pesticides restricted or banned in the US.

Underhand but over-the-counter - The Global Trade in Dangerous Products. Kit of materials from the *Regional Office of the International Organisation of Consumers' Unions*, PO Box 1045, Penang, Malaysia, 1983. Contains case studies, illustrations and photos plus 'Consumer Interpol Handbook' which gives background to dumping and IOCU's response in setting up a watchdog network. Good ideas for action. Price US\$10.00 (including postage).

A Growing Problem. By David Bull: *Oxfam Public Affairs Unit*, 1982. Thoroughly documented report on pesticides covering pest resistance, advertising and the integrated pest management alternative.

Pills, Pesticides and Profits - The International Trade in Toxic Substances. Edited by Ruth Norris: *North River Press Inc.*, Box 241, Croton on Hudson, New York 10520, 1982. Useful facts on chemicals trade as well as section on exported industries and toxic wastes. Includes transcripts of two films on the subject.

**... and how
you can help**

These are some of the groups whose work complements that of Consumer Interpol. Some of them produce newsletters and all of them would welcome readers' interest and participation. Please write directly to them for further details of their work.

Bureau Européen de l'Environnement
rue Vautier
B - 1040 Brussels, Belgium

Health Action International (HAI)
PO Box 1045
Penang, Malaysia

Bureau Européen des Unions
des Consommateurs (BEUC)
rue Royale 29
B - 1 Brussels, Belgium

Inter-Faith Centre on Corporate
Responsibility (ICCR)
475 Riverside Drive, Room 566
New York, NY 10115, USA

Consuming Interest
Australian Consumers' Association
26 Queen Street
Chippendale 2008, NSW, Australia
Publication: Consuming Interest

International Coalition for
Development Action (ICDA)
22 rue des Bollandistes
1040 Brussels, Belgium

Declaration of Bern
Gartenhofstrasse 27
8004 Zurich, Switzerland

International Development Research
Centre (IDRC)
PO Box 8500
Ottawa, Canada, K1G 3H9

Federal Congress of Development
Action Groups (BYKO)
Dritte Welt Haus
August Bebel Strasse 82
D-4800 Bielefeld 1
West Germany

Investor Responsibility Research
Centre Inc. (IRRC)
Suite 900
1319 F Street NW
Washington, DC 20004, USA

Pesticides Action Network (PAN)
P O Box 1045
Penang, Malaysia

Public Affairs Unit
Oxfam
274 Banbury Road
Oxford, UK

Side Effects
P O Box 123
Leura 2781, NSW, Australia

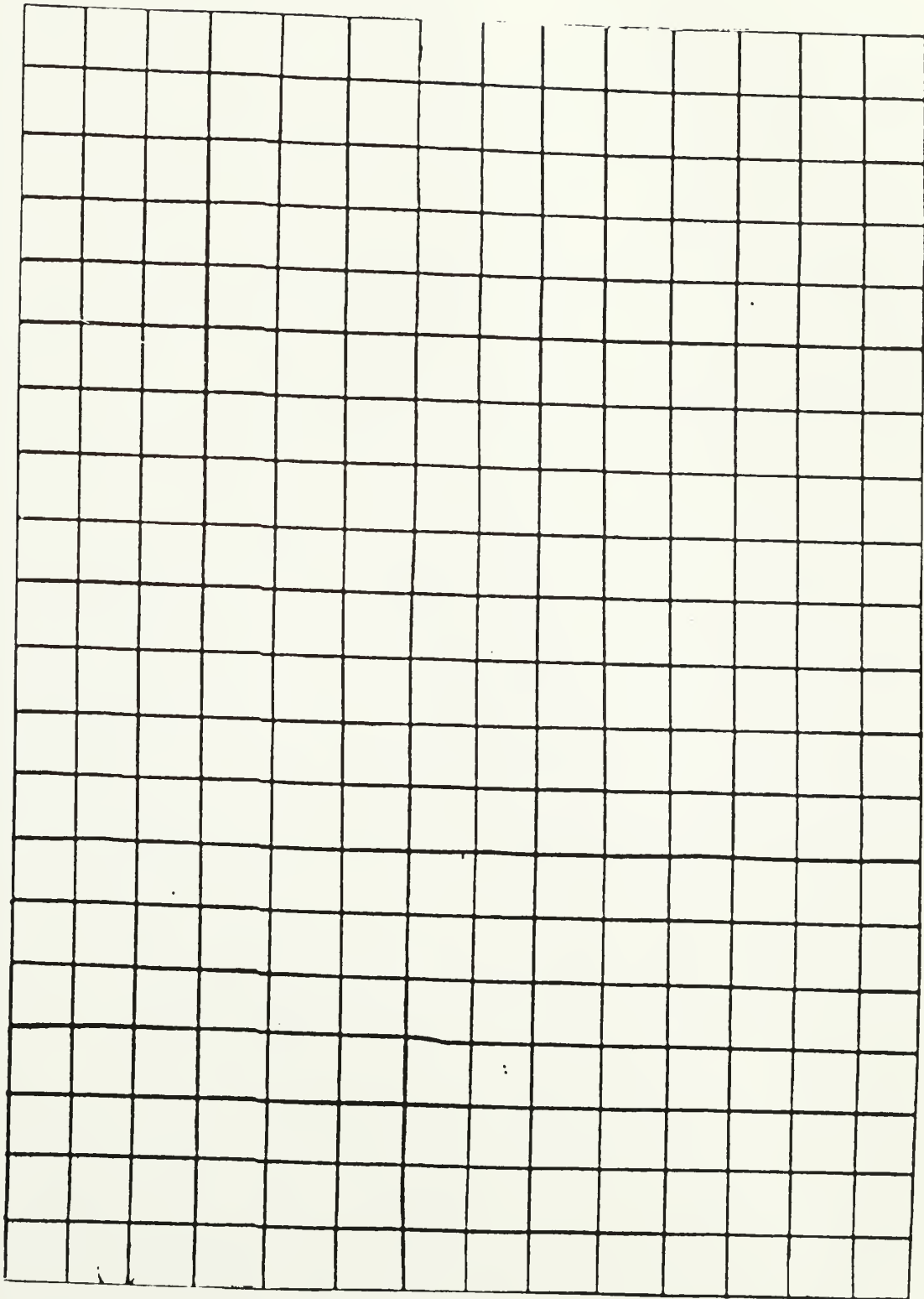
Pollution Probe
12 Madison Avenue
Toronto
Ontario M5R 2S1
Publication: Probe Post

Counter Information Services
9 Poland Street
London W1
Publication: CIS Anti Reports

British Society for Social Responsibility
in Science
9 Poland Street
London W1V 3DG, UK
Publication: Science for People

Public Citizen Health Research Group
2000 P Street, NW
Washington DC, 20036
USA

UNIT III



UNIT III

LECTURE
TERMS AND ACRONYMS

DC. Developed country--North America, Eastern and Western Europe, Japan, Australia, New Zealand--the Core or The Haves.

OC. Oppressed country. The Periphery; The Have-nots. The poor majority--not the Elite--of an exploited country. There are more commonly used terms to describe this group of countries--Poor, Underdeveloped, Developing, Third World, Newly Emerging, Non-oil Producing, Nearly Developed, Colonized, South, etc. but none of these terms accurately describe the history, circumstances, human and natural resources, and the existing situations in these countries. ("Third World" and "Yankees" are not used in this paper. Both terms are ethnic slurs that do not provide accurate and timely definition.)

FCPA. Foreign Corrupt Practices Act of 1977 attempts to curb bribery by prohibiting [US] firms from making or authorizing payments, offers, promises or gifts for the purpose of 'corruptly' influencing actions by [foreign] governments or their officials in order to obtain or retain business for a company (Reid and Timmerman, 1982).

FAO. Food and Agricultural Organization--30 years in existence with approximately 6000 in its employ including some in its little known ICP (Industrial Cooperative Program). This Program's formative policy was that the [US] government should encourage cooperation... to interest specific companies in the private sector to engage in business in the developing countries. Today about 25 percent of ICP's members are US firms, and a third Common Market agribusiness: Ralston Purina, Corn products/CPC, Archer Daniels, General Mills, BP, Shell, ICI, Unilever, etc. These ICP companies pay \$5,000 to belong, and the amount is administered by FAO to support the program's activities.

PL480. US-created promoter of the Green Revolution imposing provisions known as self-help measures to which recipient country governments are obliged to commit themselves. These measures include creating a favorable environment for private enterprise and investment and development of agricultural chemical, farm machinery and equipment.
"A Public Law program of transferring billions of dollars of our farm surpluses to poor countries.... We have reasons to

be worried about the adverse side effects of this program upon farm product prices and agricultural production within the recipient countries. In India it may well be that Indian farmers have been receiving less for the rice and wheat they have been producing than they would have received had there not been large imports of US farm products made available under the PL480 program. But can India afford this kind of underpricing and thus discourage her domestic production of farm products? One this issue is seen clearly the answer will be no." (Schultz, 1965)

CARE. Cooperative for American Relief Everywhere. As with 67 other voluntary agencies, receives direct assistance from the US government and receives American agricultural commodities under PL480 Food for Freedom Program.

TNNA. The words Transnational News Agencies does not imply that either management or ownership is in the hands of more than one country. TNNA produce, process and distribute news and increasingly, specialized information through its four predominant agencies--the Associated Press (AP), United Press International (UPI), Reuters, and Agence France-Presse (AFP)--and the two largest television news enterprises--Visnews and UPITN (Richstad, 1984).

HYV. High Yielding Variety seeds of food grains requiring ideal soil and atmosphere conditions, tremendous amounts of chemical input, at great cost to ecology and the economy of the small farmers. There is much evidence that the promised high yield is not realized by farmers in the neocolonies. "Heavy loses on the HY rice variety IR42 have led the Malaysian government to withdraw the seeds." (International Agricultural Development, 5:3, Reading, UK)

Staple crops. Food eaten daily in significant quantity; therefore crops that provide a livelihood and fair profit to local farmers. Rice, a staple food in the Philippines, may or may not be a staple crop depending on how much of it the Philippines imports. (Zucchini, tomatoes and such, although a great favorite, are not staple crops, and seldom provide a decent livelihood for the Filipino small farmers.)

Decent livelihood. An income that guarantees the next month's meals, shelter from the elements, protection from occupational hazard, access to school, medicine, hospitalization, and a decent burial.

Education. Any learning that influences the quality of life. In its most common definition, education is the

result of a nation molding its schools to the service of its system.

Self Reliance. Initiative, problem solving and decision making leading to self-improvement and community development. Nondependence on, and alertness of gifts of a Trojan Horse.

Self Help. Community based groups which work voluntarily on agenda aimed at specific group needs or problems. Rejection of aid from outsiders as a mechanism to help oneself and others.

Participation. Involvement by the people in all aspects of development in order to control and shape their own destiny.

Community Development. Based on the belief that the abilities and energies of the people in a community can be used to improve their own lives through the use of democratic processes and voluntary efforts.

Nonformal Education. Any organized, intentional, and explicit effort to promote learning to enhance the quality of life through out-of-school approaches. It is learner centered, has community-oriented context, and a nonhierarchical relationship of facilitator and learner.

Justice. Calls for the establishment of a society in both a global and national scale where each person has an equal right to the most extensive basic liberties, where social and economic inequalities are so arranged that they are to the greatest benefit of the least advantaged, and where they are linked with position and appointments which are open to all through fairness and equality of opportunity. .

INSTRUCTIONS

Please use this booklet to record everything that you eat or drink for these three days. Eat as you normally would if you were not keeping this diary. We suggest that you write the information down while eating or just after finishing since meals are difficult to recall in detail later. This diary was designed to be small and flexible enough for you to carry along if you eat out.

At the top of each page please write the date of the day for which you are providing information. Use as many of the following pages as you need to record your meals, don't feel you have to fit one day's intake on a single page. In the first column list the amount consumed, as a volume, weight, number of pieces, etc. Whenever possible copy the portion size, or the appropriate fraction used, from cans, bottles, and packages.

For the food description please give us as many details as possible and also the brand name of commercial products. Useful information includes: the method of preparation raw, baked, boiled, etc.; whether the item was fresh, canned, or frozen; and any additions, such as

salt, sugar, butter, or gravy.

If you eat a casserole, stew, or other mixed dishes, we would be very grateful if you could include the recipe on the blank pages at the back of the booklet. Also, please write down any snacks, gum, candy, alcoholic beverages, cough drops, or vitamin supplements that you consume during these three days.

Some examples of incorrect and correct records are shown on the last two pages. When you are writing in this diary, imagine that someone wants to duplicate your meals as closely as possible.

Thank you for participating in this project.

WRONG WAY		RIGHT WAY	
AMOUNT	DESCRIPTION	AMOUNT	DESCRIPTION
2 slices	Toast with jam	2 slices	Toasted white
1 cup	Coffee	3 Tbsp.	Smucker's strawberry preserves
A bowlful	Chicken noodle soup		Coffee
1/2	Ham sandwich	6 oz.	Sugar
3	Cookies	1 tsp.	Whole milk
1	Beef burger	2 Tbsp.	Campbell's noodle soup
1 serving	Peas	1/2 10 oz. can	Rye bread
		1 slice	Baked ham
		3"x3"x1/4" piece	Mayonnaise
		1 Tbsp.	Oreo cookies
		3 2" diam.	Hamburger
		1	Broiled beef
		3" wide	Frozen peas
		1 cup	

UNIT III

Do IRRI seeds sabotage the national economy and security?

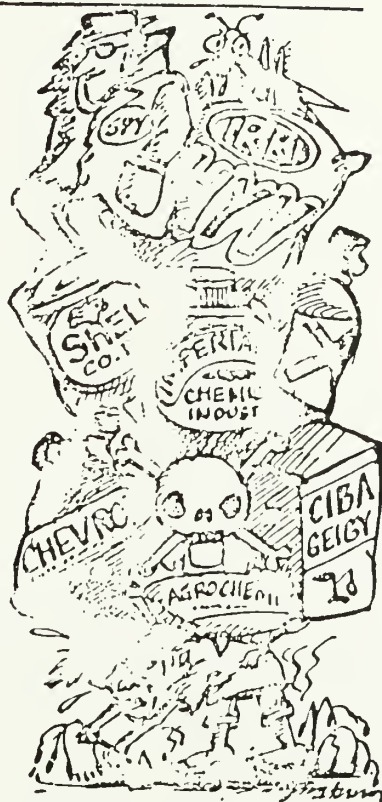
by EDMUND CORONEL

BENEATH the Innocence of *palay* seeds may lie a sinister plant. Guised as a high yielding variety (HYV) geared towards greater production and self-sufficiency in our rice industry, this could be a minute saboteur of the country's economy and national security.

This was the thesis of Dr. Burton Onate's paper entitled "IRRI Seeds: Threat to National Security" which he delivered during the 6th National Conference last Dec. 6 in the Philippine Social Sciences Center in Diliman, Quezon City. Onate, Ph.D. and past president of the Philippine Statistical Association (PSA) and the Philippine Agricultural Economics and Development Association (PAEDA), pointed out that throughout its existence, IRRI has done nothing to uplift the agricultural industry nor has it improved the quality of life of our farmers.

IRRI

The International Rice Research Institute (IRRI) was registered at the Securities and Exchange Commission on March 8, 1960 as a non-stock, non-profit and philanthropic institution. It aims to attain the betterment of the nutritive and economic advantage or benefit for the poor people of Asia. Thus, with the aid of the Rockefeller Foundation, IRRI was set up in Los Banos, Laguna based on an earlier agreement between IRRI and the Philippine government dated Sept. 16, 1959. Upon its termination the



IRRI belongs to the chain of U.S.-dominated research institutions worldwide incorporated into the Consultative Group on the International Agricultural Research based at the United Nations in New York City. Basically funded by the Rockefeller Foundation, Ford Foundation, United States Agency for International Development (USAID) and other agencies, IRRI's main thrust seems to be to encour-



POLITICS among the rice stalks.

and fund researches and problems related to products which they supply. Notables among these MNC's are the Shell Company, Inc., Imperial Chemical Industries, Chevron Chemical Co., Ciba-Geigy, Agrochemicals and others.

BUSTING IRRI MYTHS

Onate claimed that the International Rice Research Institute (IRRI) high level of technological mixes or inputs consisting of water (level, control and management), fertilizers, insecticides, pesticides, herbicides and other chemicals which must be available at the proper amount, time and place in order for the HYV IRRI rice to produce the desired yields are beyond the reach of small and poor farmers in the Philippines and Asia. These inputs, he said, require tremendous amounts of foreign exchange. Thus, the Filipino scientific community has labelled these inputs as the "Mercedes Benz" or the "Cadillac" types due to their high costs. These types are usually found in the developed world and highly commercialized farms.

Further indicators show how the IRRI rice varieties have failed miserably:

High Wheat and Rice Imports.

Taiwan 4.9 tons/ha.

Low and Negative Returns. Small, poor rice farmers realize a net profit of P700 to P800 per hectare per season; majority of them are in debt and in land reform areas, their land is mortgaged to a new emerging middle class elites. Deterioration of the quality of life of the small, poor farmers continues to plummet.

Disruption of Ecological Harmony. High level application of fertilizers, insecticides and other chemicals (poisons) have altered the micro-biological properties of the soil. Palay nowadays are addicted to the recent types of chemicals being use. This requires constant use of the prescribed chemicals. However, these are side effects including the disappearance of various insects and other creatures found in the fields. Also, excessive use of the said chemicals result in the acidity of the land. Thus, complicating the farmers' problem even more since this will require further medication.

More Virulent Insects. More virulent types of insects emerged as a result of IRRI technology. Heavy tungro manifestations were reported late last year in several areas. (Tungro is a palay illness). Historically, the IR-8 (also known as miracle rice) was wiped out by tungro in the 1970s. Presently, there is a frantic attempt to replace the IR-36 and 42 with IR-56 and 60 and heavy insecticide applications have been recommended to control the tungro virus in infestation.

Health Hazards. There have been reported incidents where the people concerned who were exposed to some of the agricultural chemicals succumbed to illness like TB, pneumonia and others. Such incidents were also covered in the paper

In a survey conducted by Onate among the farmers in Central Luzon (403 sample farmers in Pampanga, Tarlac, Nueva Ecija and Bulacan) majority of the farmers used IRRI HYV rice seeds (94%), chemicals (91%), and farm machinery (65%) and consulted technicians (67%). The dependence on IRRI's technology is evident in this respect. Yet, one finding is common to all: the farmers have not improved their quality of life since the pre-IRRI days. They have not escaped the perpetual bondage of debt as they live on from one harvest to the next. Their income is still insufficient to supply their family's basic needs.

IRRI maintains the posture that as an international research agency, it merely dishes out research outputs and let its users — the Philippine government and its technocrats — take their pick. However, the sponsorship of IRRI by various chemical industries has raised suspicions on the research it dishes out. Alternatives like the biological inputs (azolla, inorganic fertilizer, biological controls and others) are not promoted since they could become a potential competitor to chemical products marketed by sponsoring firms.

Azolla, when used as a fertilizer can be handled and cared with greater ease. Spores can be collected in small plastic containers and could seed several hectares of rice land at a minimal cost. IRRI had been conducting experiments on Azolla since 1972 or the last 13 years but has not come out with any findings that would encourage its use.

Onate also deplored the proliferation of foreigners — specially IRRI financiers — who roam the countryside collecting all kinds of sensitive data on the political,

resulted in the production of hybrid IRRI seeds by transnationals which also turn out chemical farm inputs needed for successful cultivation of the hybrids. Genetic imperialism is the latest tool being used by the developed countries to control (or sabotage) the economy of the Third World, sometimes with the witting consent of some developing country leaders".

Thus, there is no question why IRRI's development efforts tread a perverse path. Beneficiaries are no other than its sponsoring MNC's who create a chain of dependence among Third World farmers who are bound to their technological know-hows.

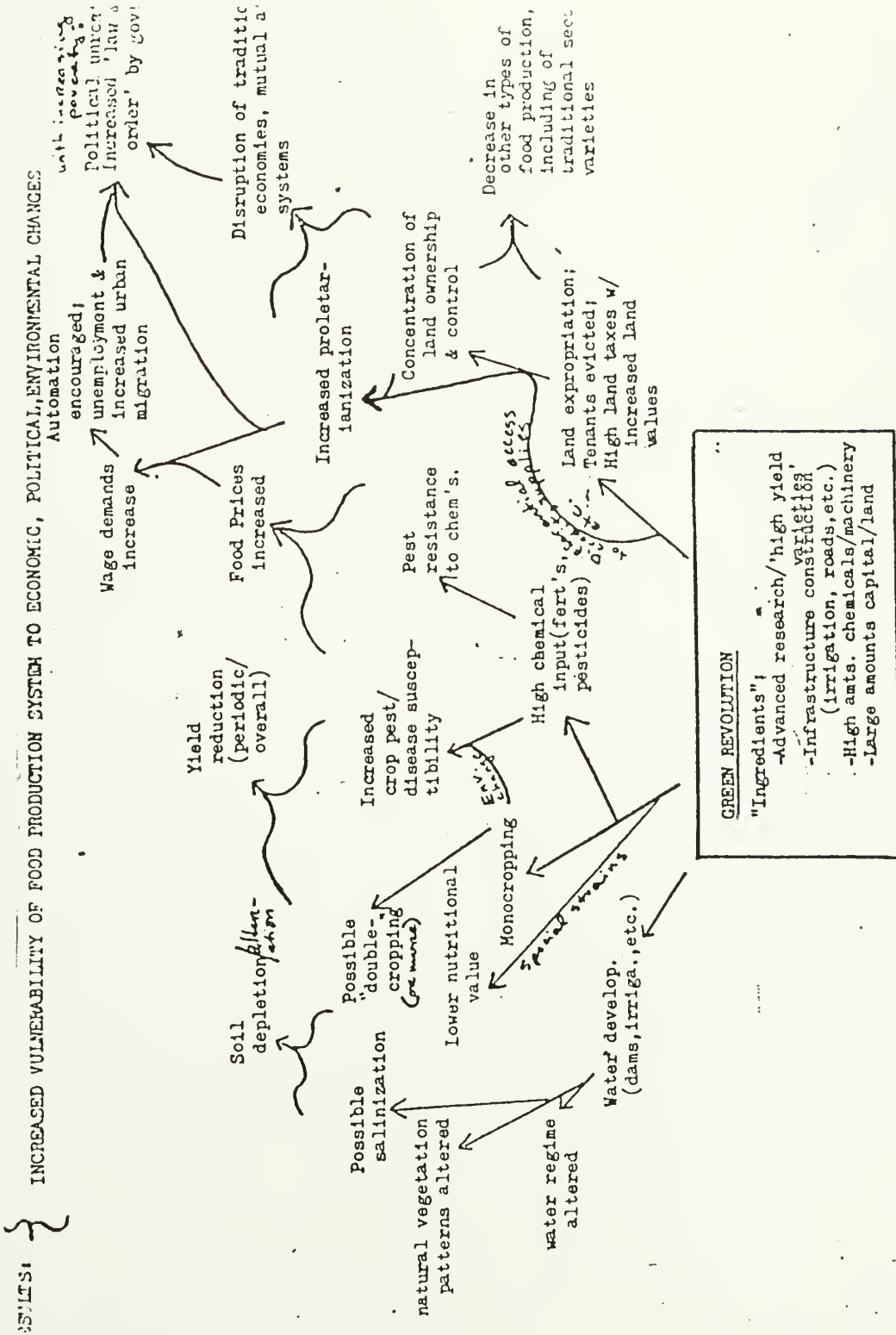
PLANS AND STRATEGIES

Onate outlined specific plans and strategies to debunk the IRRI hold on our rice industry: to evaluate the agreement stipulating the establishment of IRRI in the Philippines; and to find options using local minds and indigenous materials that will eventually minimize importation of these materials in our agro-industries. Onate believes that given the equal chance, Filipino scientists can come out with a good solution. A five to ten year timetable is allocated.

Also, Onate calls on the Batasan to look into the RP-IRRI agreement in the same manner as it is probing into the U.S. Bases in the country as well as the Batasan Nuclear Plant. He believes that a strong political will from the Batasan is needed to put a halt to the incursions of genetic imperialism, arouse the Filipino scientists from their "deep slumber" and provide direction for our agro-industry. MM

February 15-21, 1985 Mr. Mc 15

Conceptual Map:



SELECTED EFFECTS OF THE GREEN REVOLUTION IN 'THIRD WORLD' COUNTRIES: CLAUDIA CARR, U.C. BERKELEY

Agrarian Reconstruction under
Lázaro Cárdenas

In 1910, 2 percent of the Mexican population owned 97 percent of the land while in most states 95 percent of the rural population had no land at all. During the bloody revolutionary war between 1910 and 1917, well over one million peasants died fighting for land. But for seventeen years the country's peasant majority saw less than revolutionary changes. Then, in 1934, Lázaro Cárdenas, a rural-born general in the revolutionary army, was elected president. His administration immediately enacted the country's most sweeping agrarian reform law. For the first time much of the country's better land was appropriated for distribution to the landless, some to be farmed individually and some cooperatively. By 1940, near the end of Cárdenas's term, 42 percent of the entire agricultural population benefited from the distribution of over 78 million acres.² Together these small farmers owned 47 percent of all farmland and produced an impressive 52 percent of the value of the nation's farm output.³

One reason for such productivity was that a newly created national bank channeled credit and technical assistance specifically to the now numerous land-reform beneficiaries. The provision of peasant-oriented services—literacy programs, health services, farm-relevant schooling, and modest rural communications—injected new life into the countryside. Often the results were immediate. In the Laguna area, to cite but one example, the real income of land-reform beneficiaries quadrupled between 1935 and 1938.⁴

The Cárdenas administration also invested in scientific research. The purpose, however, was not to "modernize" agriculture in imitation of United States agriculture but to improve on traditional farming methods. Researchers began to develop improved varieties of wheat and especially corn, the main staple of the rural population, always concentrating on what could

FOOD FIRST

Beyond the Myth of Scarcity

Frances Moore Lappé and Joseph Collins
with Cary Fowler

Revised & Updated

BALLANTINE BOOKS • NEW YORK

be utilized by small farmers who had little money and less than ideal farm conditions.

Social and economic progress was being achieved not through dependence on foreign expertise or costly imported agricultural inputs but rather with the abundant, underutilized resources of local peasants. While production increases were seen as important, the goal was to achieve them through helping every peasant to be productive, for only then would the rural majority benefit from the production increases. Freed from the fear of landlords, bosses, and moneylenders, peasants were motivated to produce, knowing that at last they would benefit from their own labor. Power was perceptibly shifting to agrarian reform organizations controlled by those who worked the fields.

The Green Revolution as Counter Revolution: Agriculture to Serve Industrialists

Not surprisingly, by the end of his administration in 1940, Cárdenas had made powerful enemies. First were those who had seen their haciendas expropriated. Next were the urban-based moneyed groups, alarmed by the Cárdenas model of cooperative ownership of land and public ownership of certain industries. Instead of investing in rural services and collective enterprises, they wanted the state to pay for electric power, highways, dams, airports, telecommunications, and urban services that would serve privately owned, commercial agriculture and urban industrialization—from which they would profit.

Not the least of the enemies of Cárdenas was the United States foreign policy establishment. Land redistribution with cooperative ownership, as well as Cárdenas's nationalization of the Rockefeller Standard Oil subsidiary and foreign-owned railroads, caused "concern" in Washington and on Wall Street. United States corporate investment dropped by about 40 percent between the mid-thirties and the early 1940s.⁶

By 1942, these enemies of Cárdenas's rural reconstruction succeeded in seizing the balance of power within the administration of Cárdenas's successor Avila Camacho. The significance of this shift for the future of Mexican agriculture was immediately clear. President Avila Camacho's first agricultural plan stated that agriculture was now to serve as the basis for the "founding of industrial greatness."⁷ Agricultural progress was no longer to be measured first and foremost in terms of the well-being of the rural majority but in how well it served growth elsewhere in the economy. The United States only reinforced this fundamental shift. United States policy makers identified American interests with the stability of the Avila Camacho administration, with Mexico's ability to produce manufactured goods to support the war effort, and with private control over resources. Getting more food out of the rural areas and into the cities was seen as critical. More food in the urban areas meant lower food prices, an essential ingredient for quieting urban unrest and keeping industrial wages low. Low wages would ensure industrial profits high enough to attract investors, both local and foreign.

It was in this historical context that the Green Revolution was born. The Avila Camacho administration welcomed the Rockefeller Foundation to Mexico, and in 1943 the Foundation joined with the new administration to initiate an agricultural research program. The result on one level was in the much-heralded technical package later to be publicized as the Green Revolution. On another level, it served to reverse the entire thrust of the Cárdenas rural reconstruction.

The field director of the Rockefeller Foundation in Mexico became head of a new office *within* the Mexican Ministry of Agriculture. His job was to oversee a technical revolution in Mexican agriculture. Policy choices systematically discarded research alternatives oriented toward the nonirrigated, subsistence sector of Mexican agriculture. Instead, all effort went to the development of a capital-intensive technology applicable only to the relatively best-endowed areas or those

farm in the Mexican Green Revolution area of Hermosillo has grown to 2000 irrigated acres⁸ with some holdings running much larger.⁹ Not surprisingly, about 3 percent of all farms accounted for 80 percent of the production increase during the 1950s.

Here we have the model of agricultural development that has been actively exported to virtually all the underdeveloped countries within the sphere of influence of the United States.

Betting on a Winner

Ignoring overwhelming evidence from around the world* that small, carefully farmed plots are more productive per acre than large estates and use fewer costly inputs, governments, international lending agencies and foreign assistance programs have invariably passed over small farmers (not to mention the landless). The French agronomist René Dumont describes a Ford Foundation mission of thirteen North American agronomists to India in 1959. The mission argued that it was practically impossible to make simultaneous headway in all of India's 550,000 villages. So they advised subsidization of technical inputs in those areas that were well irrigated—thereby leaving over half of the nation's farms totally out of the national agricultural development program. It appeared easier to help a small number of large farmers increase wheat production by 50 percent within just a few years than to mobilize the productive potential of 50 to 60 million farm families. Thus in the mid-sixties, India's New Agricultural Strategy to promote the improved seed varieties ended up concentrating on merely one-tenth of the cultivable land and to a great extent on only one crop, wheat.¹⁰

Everywhere the large farmer has been directly favored. A study of Gapan, Nueva Ecija, in the Philippines, in 1966, showed that the first seeds produced by the Rockefeller-funded International Rice Research

that could be created by massive irrigation projects. The focus was on how to make seeds, not people, more productive. Agricultural modernization came to substitute for rural development.

Rapid urban-centered industrialization, so profitable for a few, simply could not coexist with the type of rural development promoted by the Cárdenas administration. First, true rural development based on making each rural family productive and better-off would have meant that the rural majority itself would have eaten much of the increment in food production. This increment was exactly what the ascendant urban interests counted on taking *out* of the countryside to feed an industrial workforce. Second, genuine improvement in rural life would have sharply diminished the steady exodus to the towns and cities. But it was just this ongoing influx of rural refugees that was so "needed" to perpetuate low industrial wages.

Thus, only one type of agricultural policy would serve the ends of the urban and industrial interests—one that willfully neglected the problems of the land-reform communities created by Cárdenas while lavishing public funds on increasing the production of a few large commercial growers, marketing outside the rural areas. In the words of a United Nations study:

The burden of transforming the frontier of Sonora into a vast agricultural emporium was . . . borne to a great extent by the federal treasury; but most of the fruits of the effort remained firmly under the control of the private landowning elite. . . .⁷

The Mexican government subsidized imports of agricultural machinery. In addition, between 1941 and 1952, 18 percent of Mexico's federal budget and 92 percent of its agricultural budget was spent on large irrigation projects to create vast new stretches of rich farmland in the north. This valuable land was then sold at low prices, not primarily to the landless poor, but to politically powerful families of businessmen and bureaucrats. Although by law no one in Mexico can own more than 250 irrigated acres, today the average

Institute were distributed only to landholders owning 25 acres of rice paddy or more.¹¹ No seeds were sold directly to sharecroppers or tenants.

The Tunisian agriculture program provided credit only to those owning a certain minimum acreage—usually 125 acres, a largeholding indeed in that country. Moreover, subsidies to dairy farmers went only to those producing more than 525 quarts of milk a day. Subsidies for purchasing combine harvesters benefited only the largeholder, the only one in a position to even consider such a purchase.

Once selected as the focus of government help, the large farmers have taken full advantage of their head start. Frequently the wealthiest landowning families have reaped additional profits by monopolizing distribution of fertilizers, pesticides, and machinery needed to make the new seeds respond. Associations of large commercial farmers like those in Mexico have been able to make considerable extra earnings by exporting the Green Revolution, selling thousands of tons of the new seeds annually to Asia and Africa.

Focusing narrowly on production totals transforms rural development into a technical problem—one of getting the “right,” usually foreign-made, inputs to the “progressive,” invariably well-placed farmers. We refer to this production focus as *narrow* precisely because it ignores the social reality of hunger—that the hungry are those with control over little or no food-producing resources. Until control over productive resources is democratized such “agricultural modernization” will remain but a mirage of rural development—a mirage that undermines the interests of the majority of the rural population in order to serve those of a few—large landholders, moneylenders, industrialists, bureaucrats, and foreign investors.

The influx of public funds for the purpose of increasing production has turned farming into a place for profiteering and speculative investment. But to take part, one has needed some combination of land, money, access to credit, and political influence. That alone has eliminated most of the world’s rural majority.

UNIT III

CONTENT PROCESS

(10:00) Puzzle: A picture of a grain plant representing a high yielding variety, cut up into a many piece puzzle. Each puzzle piece is labelled with "fertilizer," "pesticide," "rodenticide," "herbicide," "irrigation," "nature at its best," "fungicide" "tractor," "airplane sprayer," etc.

Flow Chart: The schematic of high technology farming with HYV seeds will be discussed. Attendees will be asked to follow and analyze the sequence of the arrows. Identify the links between geographic displacement and hunger. Identify the subtle difference between voluntary and involuntary abandonment of the farm.

Circle of Poison: According to World Health Organization, someone in the underdeveloped countries is poisoned by pesticides every minute. But before these people are killed by the banned poison the US exported to them, they have returned to us the crops (bananas, pineapples, flowers) with the poison.

(11:00) Food Diary Intake: For the food description, it is necessary to give as many details as possible and also the brand name of commercial products.

(1:00) Terms and Acronyms: In the course of a day as we read the newspapers and listen to the radio, we hear

acronyms and terms that we are not familiar with. Some of these acronyms come up in this Workshop.

(1:45) Role Playing: The Plot--The farmer, desirous of improving his yield "allowed himself to be talked into buying" a small tractor. The tractor salesman is his wife's uncle. The farmer with the consent of his wife, sold the carabao, which he has had for 8 years, and used the money for downpayment. The rest of the downpayment was borrowed by the village money lender. After using the tractor for 3 months, the motorblade and the rubber belt disappeared one night. The farmer does not have a locked garage. A clamp is also missing. The salesman cannot promise when he will go to the big city to check if the stores have these parts. And even if he could go today, the farmer does not have money to purchase the parts anyway.

Homework: Sketch a rough map of your own town, approximately 1 mile radius of the main church. Include in your map residences ranging from the wealthiest in your town to the poorest.

UNIT III

ACTIVITY RATIONALE

Puzzle: This puzzle shows parts that make up a whole. Children can be trained to take a whole, cut it up and label the parts. In this activity, the puzzle shows what are required when cultivating the high technology needs of HYV seeds.

Flow Chart: The schema will show that a negative activity leads to another negative ripple effect. By having the Attendees follow the arrows, they can understand the causes of the existing conditions in the farms, and interact with the underlying concepts of the Unit.

Going around the circle twice, everyone will be encouraged to generate a couple of questions. Where two arrows link connecting two issues is where the dependency of the system on technology can be clearly seen. Some of the agricultural or chemical terms may not be known to the people present and may need to be defined.

People hesitate to raise their hand to announce to all that s/he does not know the meaning of of a word or a term. It is therefore recommended that request for definitions be written down and be put in the Questions Box.

The more materials are supplied, the hazier the total picture may become. Global food farming is one of the most complex issues which is why its solution is elusive. Vested

interests which benefit from the existing situation are able to "get away with it" and maintain the status quo with minimum of effort because of the complexity of the situation. There are too many exclusive, isolated compartments to the issue. The de-clouding of these issues will occur to the Attendees at some distant future as more materials. Some of the topics in this Workshop are unfamiliar to those who are not food or agriculture oriented. The issues will become clearer as they read more on the issues from the popular press. Reading for instance that Nicaragua has a law that if land is being used for export crops, the government will take the land away and give the land to a local farmer cooperative, will be another piece of puzzle that the Attendees can fit into the problem. Foreign companies which farm for export and repatriate profit are not allowed in Nicaragua.

Circle of Poison: Drinking a morning cup of coffee or enjoying a luncheon salad, the US consumer may be eating pesticides banned or restricted in the US but legally shipped to the foreign countries.

Acronyms and Terms: Without knowing what these collections of letters mean, or the various activities the group it represents is doing, would not allow the reader to understand the complete meaning of the news about it.

Role Playing. The tractor is non-functional. Meanwhile the plowing needs done, but the farmer has no way to plow.

The farmer is distraught. The wife is crying. The mother is furious with the tractor-salesman, her brother. The money lender is demanding his payment for that month. What is the resolution? The ideal conclusion would be to return the tractor and retrieve the carabao. The tractor will continue to cause problems.

Evaluation: Were the varied concerns well expressed? Where there problems that were not looked at? Whose arguments were effective and whose arguments were not well thought out?

Map Making: It is a positive exercise to really look at and plot one's environment. With this activity, one can see with a critical eye that which has been routine. Outside the church are sitted every morning a couple of begging old women. Who are these beggars? Where did they come from? What did they do before they became beggars? The large house on the hill is the money lender's. Why is the money lender the most prosperous in this area?

UNIT IV, HO# 1.

INDIGENOUS FOODS=BETTER HEALTH, BETTER ECONOMY

WORKSHOP

AGENDA

- 9:00 Have maps (Homework) up on the wall.
- 9:00 - 9:15 Write down on cards ideas from yesterday's discussions (Green Revolution and Circle of Poison) which can be passed on to elementary school pupils.
- 9:00 - 9:45 Issue Paper: Why the Poor Have Many Children
- 9:45 - 10:30 Develop probing questions AGAINST the Issue Paper.
- 10:30 - 12:30 Field Trip: Tobacco Plantation/Curing House.
- 12:30 - 1:30 Picnic Lunch and Networking
- 1:30 - 2:30 Analysis of Attendees' Food Diary.
- 2:30 - 3:00 Philippine Importation of Food.
- 3:00 - 3:30 Two articles on Western food surplus.
- 3:30 - 3:55 Discussion - Map (homework)
- 3:55 - 4:00 HOMEWORK: Oral presentation, Position Paper on assigned article on Smoking. Write a one paragraph synopsis of your presentation. To be collected. Also, read Large Farms vs. Small Farms.

UNIT IV, HO# 2.

WORKSHOP
INSTRUCTIONAL PLAN

TOPICS

Overpopulation
Food Importation
Western Surplus Food (2 articles)

HAND-OUTS

Agenda for Unit IV
Instructional Plan for Unit IV
Hand-outs for Units IV-VI
Why the Poor Have Many Children
Philippine Imports
Mahatma Gandhi
Western Food Surplus (2 articles)

HOMEWORK

Draft of Position Paper on Smoking
Read article on Mahatma Gandhi

SUPPLIES & RESOURCES:

Food Tables
Interchangeable Staple Food Nutritional Contents

ACTIVITIES

Field Trip
Picnic lunch
Analysis of Barrio map
Devil's Advocate to Population Issue

REFERENCES

Danforth, Sen. J. Keeping in Touch, February 17, 1984.
US Congressional Record, February 9, 1984.
FATUS, USDA, January 1985, Washington, DC.
Sachs, I. Gandhi and Development, A European View.
Philippine Food Tables, Ministry of Health, Manila

UNIT IV, HO# 3.

INDIGENOUS FOODS = BETTER HEALTH, BETTER ECONOMY

HAND-OUTS FOR SECOND WEEKEND

UNITS IV-VI (THREE DAYS)

UNIT IV

Agenda for Unit IV
Instructional Plan for Unit IV
Hand-outs for Units IV-VI
Why the Poor Have Many Children
Philippine Food Importation
Western Food Surplus (2 articles)
Mahatma Gandhi article

UNIT V

Agenda for Unit V
Instructional Plan for Unit V
Smoking Articles (3)
Comparative Study of Interchangeable Foods
Farms: Absentee Landlord/Owner Cultivated
Nutritional Analysis of Foods
Philippine Medicinal Plants
Diagram - Respiratory System

UNIT VI

Agenda for Unit VI
Instructional Plan for Unit VI
Nature/Culture
Hunger, According to the Rich Man, Poor Man
The Political Economy of the Banana Crop

UNIT IV, HO# 4.

WHY THE POOR HAVE CHILDREN

Family Planning Programs make people feel guilty about having children. But such guilt has no basis.

Children do not cause poverty. Poverty, caused by powerful people and powerful systems, creates a need for children. To the poor, children are wealth, insurance, care-taker, assets, and hope for a better future. The poor's children, not being part of the consumer society, are more assets than liability. Rural children can care for chickens, ducks and small meat animals. Older children can take care of younger children, fetch water, care for bigger animals, cut hay, transplant seedlings, and work for goods or money. Even in cities, poor adults are underpaid and often unemployed. They need children to help support the family.

A rich man's child will cost parents tens even hundreds of thousands of dollars by the time this child is independent. This child is a drain in resources. The father cannot afford too many of this drain in resources. The poor man's child is not this kind of a drain.

Infant mortality among the poor is high. If a poor couple need four children to help them through life, they must have seven or eight births. By the law of average a few of their infants will die before age five.

Religions may have recognized this. They encouraged large families. It is also possible that religions like big families so there will be more to support the church. In the days of slavery, plantation owners encouraged births among the slaves. Each member of a poor family, sometimes including small children, generates income.

Even in cities, poor adults are underpaid and often unemployed. They need children to help support the family. This need makes Family Planning Programs not very successful because poor people have this strong need for more children as insurance.

There are countries whose populations have increased less than most. Peru is a case in point. Yet, there are many more impoverished people there today than a hundred years ago. Such increase in poverty cannot therefore be blamed on overpopulation. It must have to do with oppression by the elite, i.e. the poor's rightful dues are stolen from them. It must have to do with the basic systemic forces, and national and international economic disorder.

There are countries where the life of the poor has improved over the years. As life becomes better, the emotional need to have more children is no longer very strong. Even without Family Planning Programs, the women decide to have fewer children. Only when there is no great need for children as insurance will families become smaller.

In light of the foregoing, any argument regarding contraceptives or religious prohibitions is moot. Feeling a need for children, the couples will NOT practice family planning. If by saying "Abrakadabra!" they could eliminate pregnancy, they wouldn't say it, because they want children.

UNIT IV, HO# 5.

PHILIPPINE AGRIPRODUCT IMPORTATION FROM THE US,
JANUARY-DECEMBER 1983 AND 1984, US DOLLAR VALUE. PARTIAL
LIST.*

	1983	1984
swine live	\$581,000	\$207,000
poultry live	1,862,000	1,635,000
baby chicks	1,861,000	1,635,000
dairy products	6,764,000	7,144,000
nonfat dry milk	4,428,000	5,528,000
whey fluid or dried	1,828,000	1,458,000
other animal fats, oils	580,000	168,000
wheat	145,448,000	121,601,000
bulgur wheat	709,000	577,000
feed grain products	315,000	6,416,000
grains & feed	199,680,000	174,373,000
other feeds & fodder	4,874,000	3,129,000
oats	14,000	25,000
blended food prod	8,506,000	9,584,000
raisins dried	1,074,000	194,000
fruits canned ex juice	1,069,000	39,000
orange juice	1,674,000	693,000
dried peas	789,000	349,000
hops incl hop ext.	3,299,000	1,189,000
oil seeds & oil prod	20,627,000	84,050,000
oil cake and meal	5,983,000	80,552,000
soybean meal	5,973,000	80,552,000
protein substances	857,000	885,000
tobacco unmg	40,590,000	18,322,000
tobacco burley	23,806,000	13,149,000
tobacco flue cured	15,182,000	3,265,000
other tobacco unmg	1,601,000	1,907,000
cotton ex linter	23,549,000	14,312,000
essential oils	2,643,000	1,599,000
sugar & tropical prod	13,674,000	7,053,000
related sugar prod	859,000	285,000
cocoa	284,000	19,000
chocolate & prep	1,599,000	550,000
tea & mate	292,000	75,000
spices	269,000	189,000
flavoring syrup & ext	9,297,000	5,188,000
rubber crude natural	1,013,000	640,000
fiber ex cotton	0	20,000
other misc veg prod	1,126,000	593,000

*Partial list, both in quantity and in category. There are other listings such as "Other E & SE Asia," "Less Developed Countries," in addition to "Philippines" which means that food items in any of these categories could end up in the Philippines.

Selected non-ag exports to World:

fertilizer	\$2,076,217,000	\$2,705,378,000
potassium	77,182,000	101,943,000
nitrogen	230,872,000	320,816,000
phosphate	1,713,248,000	1,849,921,000
mixed or organic fertilizer	54,915,000	433,198,000
ag chemicals	1,280,030,000	1,496,250,000
fungicides	270,878,000	198,338,000
herbicides	593,538,000	706,759,000
insecticides	381,794,000	418,747,000
other pesticides	133,820,000	171,796,000
farm machinery	1,153,014,000	1,307,403,000
tractor & self-prop mach	542,181,000	511,014,000
other ag machinery & parts	610,833,000	596,389,000
tobacco-mfg	1,185,620,000	1,192,439,000

(Source: FATUS--Foreign Agricultural Trade of the US, US Dept. of Agriculture, Economic Research Services, Washington, DC 20250, Jan-Feb 1985)



SENATOR JACK DANFORTH

UNIT IV
HO # 6

KEEPING IN TOUCH

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For Release the Week of February 17, 1984

FOOD FOR PEACE: AN ECONOMIC WINNER -- A MORAL IMPERATIVE

A farmer from Pollock, Missouri, wrote a letter to me that is excerpted below.

"I am writing this letter after seeing you on the news this morning... It seems there has been a drought [in Africa] and you are quite concerned about the welfare of the citizens of certain African countries. As an American citizen and a registered voter, I feel that the first concern of a Congressman is the people he represents. The second concern is the country as a whole and the welfare of various and assorted Africans is somewhere between slight and non-existent. If you want to worry about the results of a drought, you could have checked out my corn crop. And if you want to give away a few million dollars, check around, there are some farmers who could use some of them..."

Americans have had two reactions to the developing crisis of starvation in Africa. The first: "What can I do to help?" The second: "Let's take care of our problems at home first."

The reaction that "charity begins at home" is perfectly understandable. But I would like to suggest in this case two reasons why such a reaction -- understandable as it is -- should not prevail.

First, the crisis in Africa is fundamentally different from anything we face in America. In Africa, there is death by starvation. There are many places where no rain has fallen for years. There are areas one-half the size of the U.S. where there is no ground cover of any kind. Of the world's 36 poorest nations, 22 are in Africa... countries without roads, without warehouses, without transportation, without crops, without livestock... without hope. When we provide emergency food relief or assistance to increase food production, we do so because America is a nation that cares about human life. Reverence for humankind is a dominant strain in the American soul. We believe deeply in our country and we believe that solving problems such as starvation in Africa is what our country is supposed to stand for.

Second, transfers of food from our enormous surpluses have a positive effect on the entire U.S. economy. It is ironic that the Pollock letter comes from a farmer, because farmers are principal beneficiaries of our Food for Peace program. Under Food for Peace, the government buys farm commodities on the open market and exports the foodstuffs to hungry nations. Food for Peace purchases increase the income of American farmers. They raise commodity prices by providing more demand. Simultaneously, Food for Peace reduces the huge commodity inventories that act as a damper on prices received by farmers. The program increases U.S. exports and reduces our trade deficit. By creating jobs and income, it increases tax revenues to the Treasury and reduces spending for social services and deficiency payments to farmers. This is not speculation.

A recent Congressional Research Service study confirmed all of these positive results that would flow from increasing the Food for Peace program.

The study found that each extra dollar for Food for Peace would mean an increase of \$2.50 in net farm income and \$2 in American exports. The stimulus to the farm economy more than pays for itself with more jobs, reduced outlays, and increased tax revenues.

For Missouri farmers and the U.S. economy, Food for Peace is a good deal.

More important, for America it is a reflection of our "can do" spirit, our problem solving ability, our capacity to produce food, and our system of values.

UNIT IV

CONGRESSIONAL RECORD — SENATE

February 9, 1984

period, the volume of export shipments declined from 162 million metric tons to 145 million metric tons—10.5 percent.

There are a number of reasons for the recent declines in the value and tonnage of U.S. agricultural exports: The worldwide recession, strength of the U.S. dollar, increased debt burdens facing U.S. customers, and the increased use of export subsidies by the European Community and other countries.

In response to this trade dilemma, I am introducing the Food Aid and Export Market Promotion Act, along with Senators Boren, Jensen, and Pryor. The purpose of this legislation is twofold: First, to expand agricultural exports through existing credit and food aid programs; and second, provide the Secretary of Agriculture with additional export credit tools aimed at developing markets for U.S. agricultural exports in countries with economies that are strong enough so that they can start phasing out of Public Law 480, yet not strong enough to move completely to GSM-102.

Our ability to effectively compete in agricultural trade in the decade ahead will greatly depend on our ability to provide more creative financing for potential customers. The export credit initiatives included in this bill will provide the Secretary of Agriculture with the tools necessary to expand U.S. agricultural exports in a number of key markets. The food aid provisions will allow our country to maintain its fine tradition of helping the hungry around the world.

On February 23, I will chair a hearing of the Subcommittee on Foreign Agricultural Policy to consider this bill. It is my hope that these initiatives will receive the solid support of humanitarian organizations as well as agricultural groups. Both have much to gain by its implementation.

With the help of my colleagues, I think this bill can be passed expeditiously. I invite all of you to join as cosponsors in the effort to turn the tide toward increasing agricultural exports.

I ask unanimous consent that a summary of major provisions follow my remarks.

There being no objection, the material was ordered to be printed in the Record, as follows:

FOOD AID AND EXPORT MARKET PROMOTION ACT

SUMMARY OF MAJOR PROVISIONS

Sec. 2. Mandate that \$7 billion of GSM-102 credit guarantees be made available in Fiscal Year 1984. The Administration has approved \$4 billion in guarantees for FY84, compared to \$5.15 billion in FY83.

Under the GSM-102 program, the Commodity Credit Corporation guarantees commercial loans made to finance exports of U.S. agricultural products with repayment periods of 6 months to 3 years.

Sec. 3. Increase the authorization level for Title II of P.L. 480 from \$1.0 to \$1.5 billion. The increased Title II authority would be available to meet increased needs for food assistance. Title II commodities are given as outright food grants to needy nations.

Sec. 4. The authority for overseas commodity donations under Section 416 of the Agricultural Act of 1949 would be expanded to allow donations of any CCC-owned commodities without counting them against P.L. 480 allocations. (Currently, only dairy products can be given away under this authority.)

Sec. 5. The Budget Reconciliation Act of 1982 mandated that between \$175 and \$190 million of CCC funds be used for export promotion in each of the Fiscal Years 1983-1985. Approximately \$70 million remains to be used in FY84.

The bill would direct the Secretary to use at least \$25 million in FY84 and \$50 million in FY85 for the intermediate credit programs (GSM-201 and GSM-301).

GSM-201 is a direct credit program which provides CCC financing for the exportation of breeding livestock with repayment terms of 3-10 years. GSM-301 is a direct credit program for infrastructure development with repayment of 3-10 years.

Section 5 also amends the existing intermediate credit programs to:

(a) Provide the Secretary with the flexibility to set the repayment terms and the interest rate. Currently, the Secretary is required to set repayment terms over a 3-10 year period with interest rates that reflect those of short-term U.S. Treasury notes.

(b) Provide the Secretary with the authority to establish an intermediate credit guarantee program. Under this provision, the CCC would guarantee a commercial loan which calls for repayment within 3-10 years. In addition, the Secretary would be authorized to use CCC funds to buy-down the interest rate offered by the commercial lender.

Sec. 6. Mandate a GAO study to investigate our existing food aid programs. The study must be completed within 120 days of the enactment of the legislation.

The purpose of this study would be to evaluate:

(a) the needs of recipient countries relative to global food aid needs;

(b) the use to which recipients put the food aid once it is received;

(c) the nutritional and economic success of the programs; and

(d) the extent to which the ultimate consumer knows that the aid is coming from the United States and how this information could be provided more effectively. ◊

By Mr. BOSCHWITZ (for himself, Mr. BOREN, Mr. JENSEN, and Mr. PRYOR):

S. 2304. A bill to enhance U.S. food aid, restore competitive position of the United States in agricultural export markets, and for other purposes; to the Committee on Agriculture, Nutrition and Forestry.

FOOD AID AND EXPORT MARKET PROMOTION ACT
 ◊ Mr. BOSCHWITZ. Mr. President, over the past decade the United States has been the world's largest exporter of agricultural products. The United States currently supplies 80 percent of the soybeans, 60 percent of the feed grains, 40 percent of the wheat and cotton, and 20 percent of the tobacco and rice moving into the world trade.

The value of these exports increased from approximately \$7 billion in 1970 to around \$44 billion in fiscal year 1981. These exports have created more than 800,000 domestic jobs in related industries, and have taken production of 2 out of every 5 acres of U.S. cropland. In addition, these exports generate about one-fourth of all farm cash receipts and contributed nearly \$30 billion to our balance of trade at their height in 1981.

Despite the many benefits of international trade in farm products, the United States finds itself currently facing a major agricultural trade dilemma. The gross value of our agricultural exports in fiscal year 1983 was \$34.5 billion, a decline of 21 percent from the 1981 level. Over the same

UNIT IV, HO# 8.

MAHATMA GANDHI

I. Sachs in "Gandhi and Development, a European View," brings to the reader Mahatma Gandhi's words: "I must confess that I do not draw a sharp or any distinction between economics and ethics. Economics that hurt the moral well-being of an individual or a nation are immoral and therefore sinful. Thus the economics that permit one country to prey upon another are immoral...."

Sachs states: Gandhi's insistence on self-help and self-sufficiency as well as on solidarity and interdependence among equals contains in germ the concept of self-reliance in its modern sense of counting on one's own forces, which does not necessarily lead to autarky but implies the capacity for autonomous decision-making and the selective control over external relations.

Gandhi's immediate targets: 1) to promote the dignity of labour by generalizing staple-crop labor, and 2) to give everyone an opportunity to earn a decent livelihood, mostly through agriculture and craft. Gandhi emphasized the need to employ the idle rural labour force in the production of necessities.

Gandhi: "If I could produce all my country's wants by means of the labour of 30,000 people instead of thirty million, I should not mind it, provided that the thirty

million are not rendered idle and unemployed. Heavy industries should remain under state control in order to prevent private monopolies."

(Self-Reliance. J. Galtung et al., eds. Geneva: Institute of Developmental Studies.)

UNIT IV

CONTENT PROCESS

(9:00) Homework: Tack the maps of the barrios on the wall where everybody can look at them during break and the lunch period.

The first 15 minutes will be spent recalling yesterday's Issues and writing down ideas which can be passed on to elementary pupils. Sharing from yesterday's Issues (Green Revolution, Circle of Poison, and Food Intake Diary) give the topic today's perspectives.

(9:45) Overpopulation, or the issue of too many births. Does poverty/insecurity create the need for many (strong-bodied, young, able) children? Or do many children create poverty? The article seems to say that poverty creates a need for children.

(1:30) Analysis of Attendee's Food Intake Diary: This activity is to analyze a one-day food intake diary from each Attendee; everything the person has eaten in a 24-hour period.

(2:30) The Hand-out shows the categories and quantities of staple and other foods the US exports to the Philippines. Education is awareness of the amount of foods imported.

(3:00) The two articles show the activities going on in order to maintain a global market for the Western surplus

grain and other surplus foods. The two articles have been read at home. The activity will be to write 2 question on a card, collect the cards, and pass the cards out again. The questions will be read and a volunteer will answer each question.

(3:30) A few volunteers will talk about their maps. What aspect of map making they enjoyed most.

UNIT IV

ACTIVITY RATIONALE

HW: Maps--having the maps put up did the following:

- 1) The facilitator told the group that the the homework was expected to be done; 2) Have everyone see the other's effort and learn new ideas at creating a map; 3)

Appreciation for the existence of other localities, other barrios near by. In the process of making the map they may have followed roads which they never followed before, or have discovered where certain people live.

Topics for Pupils: Again, as the Attendees think of what it is within the issues that can be taught to elementary school children make them really analyze the issues.

Overpopulation: Attendees will think of arguments to counter this assertion. What does it mean when we say poor children are assets (income) and not liabilities (expense)? What about the Catholic Church's attitude about birth control? What does it mean when we say that poor children are not part of the capitalistic consumer society?

Food Intake Diary: This activity will familiarize the Attendees with the Philippine Nutrient Tables and learn how foods are broken down into nutrients. Food intake diary of several days will show a profile of a person's eating pattern, including nutrients of particular concern. This

training in filling the food diary will show them how to assess the dietary status of ill or convalescing children. The purpose of assessing the food intake is to identify the nutrients judged to be at risk, the cause of the scarcity of these nutrients, and the significance of the findings. The aim is to determine the nutritional content of each food consumed by consulting the Philippine Food Nutrient Tables.

Food Imports: In the Philippines, most people are aware that excessive importation is bad, and import control is good. But when they talk import control, most have the idea that the items of concern are Revlon lipsticks, silk materials, and European wines. It is not common knowledge that the imports that hurt the country most are the basic, poor-people food imports.

Articles on Western need for markets: It is predictable that people will hesitate to ask their own questions. Asking questions is saying, "I am slow in understanding what I read. Spell it out to me." While this feeling would not bother some, it is likely to bother the average Attendee. By writing it down, the questioner's identity is concealed, but the question has been brought up to be answered and understood by all.

UNIT V, HO# 1.

INDIGENOUS FOODS = BETTER HEALTH, BETTER ECONOMY

WORKSHOP

AGENDA

- 9:00 - 10:30 Issue: Smoking. Attendees will make a 10 minute oral presentation of Position Paper.
- 10:30 - 10:45 Exercise. Rest period.
- 10:45 - 11:30 Interview: Absentee Landlord vs. Owner-cultivated Farms
- 11:30 - 12:00 Comparative Nutrient Study of Interchangeable Foods
- 12:00 - 1:30 Lunch and Networking.
- 1:30 - 2:00 Lecture: Path of the Smoke (Respiratory System). Group drawing of life-size model.
- 2:00 - 2:30 Short stroll to gather edible and medicinal flora.
- 2:30 - 3:00 Label and press flora for scrapbook.
- 3:00 - 3:55 Individual Reports on Interview (Absentee Landlord vs. Owner-cultivated. Summary of Gandhi article by volunteer.
- 3:55 - 4:00 HOMEWORK: Read Hunger, According to the Rich Man/Poor Man. Debate.

UNIT V, HO# 2.

WORKSHOP

INSTRUCTIONAL PLAN

TOPICS

Smoking
 Farm: Absentee Landlord or Owner Cultivated?
 Nutritional Analysis of Interchangeable Foods
 Respiratory System
 Edible and Medicinal Flora

HAND-OUTS

Agenda for Unit V
 Instructional Plan for Unit V
 Diagram, Respiratory System
 Smoking Articles (3)
 Nutritional Analysis of Interchangeable Food
 Philippine Medicinal Plants

HOMEWORK

Read Hunger, According to the Rich Man/Poor Man (debate)

MATERIALS

Bond paper
 Tissue paper
 Scissors
 Cellophane tape
 Newsprint for drawing a double life-size respiratory system

ACTIVITIES

Interview
 Exercise
 Oral Presentation
 Analysis of Food Nutrient
 Group Drawing, Respiratory System

REFERENCES

Smoking: U.N. Chakravorty, Multinational Pushers; New Internationalist, Dec. 1982. Second-Hand Smoke, Mass. Dept. of Public Health. Lung Cancer Due to Smoking, Bulletin Today, Jan. 2, 1984.
 Interchangeable Foods, Nutrient Data Bank, UMass.
 Escobar, V. C. Philippine Medicinal Plants. Philippine Panorama, March 1973.

UNIT V

Multinational pushers

Tobacco giants set sights on Third World

CIGARETTES are being purchased secretly from market stalls and street vendors in the developing world for a survey backed by the World Health Organisation. The survey, by the Addiction Research Foundation in Toronto, is prompted by the widespread suspicion that cigarettes sold in the developing world have higher levels of tar, nicotine and carbon monoxide than those in the West.

'We are tasting cigarettes on every continent,' says Roberto Masironi, an official of WHO; 'About 50 brands are involved in this first operation'. The results are expected by late 1982.

'Why the tobacco industry would want to sell cigarettes with these higher levels in developing countries is a matter for speculation,' says Masironi. 'If they are doing so, it might be for one of three reasons - one, deliberately to keep smokers hooked by giving them more nicotine; two, it might simply be cheaper to produce high level tar cigarettes; or three, it might be that they are dumping stocks they can no longer sell in the developed countries because of stricter legislation.'

An analysis of four international brands carried out by the National Cancer Control Centre of the Philippines Department of Health revealed startling facts in 1977. While the same cigarette brands manufactured in the Philippines yielded an average of 31.75 milligrams of tar, in the UK they yielded only 15 milligrams, and in the US, only 17.5 milligrams. The brands tested were Kent, Kool, Marlboro and Chesterfield.



A major battle is shaping up in developing countries between multinational tobacco giants and a small but growing consumer movement over a threatened smoking epidemic, says Charles Morrow, who was until recently WHO's director of information at its headquarters in Geneva. 'It is going to be a battle which far surpasses the infant food controversy in the number of lives it will affect and the dollars at stake.' Third World governments and international organisations like WHO are going to

American Tobacco, Imperial Tobacco, R.J. Reynolds, Philip Morris, the South African controlled Rupert/Rsmbrandt/Rothmans Group, American Brands and Gulf and Western - that control the world market for manufactured cigarettes have begun to feel seriously threatened by the levelling off of smoking in wealthier countries, says Morrow. Per capita consumption of cigarettes amongst adults over 18 years steadily went down in the US from a high of 4,148 in 1973 to about 4,000 in 1978. In the UK, per capita consumption has since 1975 been going down by three to four per cent per year.

According to Morrow: 'Internal correspondence from the multinationals based in the United Kingdom, which was obtained by WHO officials, has shown that industry has adopted a two-pronged strategy to protect their profits. First, they would proclaim their willingness, in developed countries, to go along with voluntary restraints on advertising and promotion while stoutly resisting legislative controls. They would continue to write the rules of the game. Second, they would greatly expand marketing and sales efforts in the Third World, where they are unhampered by bothersome restrictions.' Per capita cigarette consumption in the developing world rose from 539 cigarettes in 1960-64 to 685 in 1972 and is expected to rise rapidly to 830 by 1985.

'But even in wealthy countries,' Morrow points out, 'politicians have found that there is little credit in anti-smoking campaigns. Joseph Califano, popular Secretary of Health, Education and Welfare under President Carter, was widely believed to have been fired because of his single-minded attack on the tobacco companies. Sir George Young, Junior Minister of Health in a recent Thatcher cabinet, was quietly removed during a bitter battle with the UK tobacco industry on toughening up a voluntary code on cigarette marketing.'

In developing countries, as farmers get hooked on to growing tobacco, governments are becoming heavily dependant on tobacco-based revenues, something the industry is always quick to point out. When health warnings were proposed in the Philippines, the tobacco barons there immediately reminded the government that cigarette and tobacco taxes contribute 47 per cent of government revenue.

But more and more societies are beginning to pay the price in terms of health. In ten cities of Latin America smoking was recently held to be responsible for 20 per cent of all fatalities. In East Africa, where lung cancer was a rarity, the disease is now on the rise. In India, the number of smokers suffering from chronic bronchitis is three times that of non-smokers and cancer is also on the rise. Recent US studies show that even non-smokers who live close to smokers can get cancer.

Ujjayant N. Chakravorty CSE

Studies show:

Lung cancer due to smoking

Majority of lung cancer cases in the country have been found to be associated with cigarette smoking, Dr. Priscilla Tablan, director of the Lung Center of the Philippines (LCP), disclosed yesterday.

Twenty-two out of some 2,000 chemicals in tobacco are known or proven carcinogens, including brand-trade secret additives used to lower tar content, leaf fresheners, distinctive flavor agents, and sugars which when burned become carcinogens, she said.

Lung cancer is the most prevalent and most aggressive type of cancer in humans.

Tablan cited studies showing that tobacco smokers are eight to 20 times at risk of developing lung cancer and three times at risk of developing upper respiratory tract cancer than non-smokers.

At the LCP, 364 of the 637 cases of lung diseases admitted from January, 1982 to June, 1983 were diagnosed to be lung cancers.

However, the number is reportedly a conservative figure since lung cancers in the country are very likely undiagnosed, misdiagnosed, underestimated, and confused with pulmonary tuberculosis which still has a relatively high incidence in the Philippines compared to other countries, Tablan said.

Tablan forecast that the country's mortality rate for lung cancers may even increase since the smoking habit is of epidemic proportion among Filipinos.

She noted that the situation will continue as long as the tobacco industry is encouraged by government subsidy and foreign cigarette imports.

Of the lung cancer cases admitted at the LCP, the biggest group were office workers, followed by farmers, housekeepers, drivers, mechanics, conductors, vendors, policemen, businessmen, factory workers, carpenters, cooks, waiters, fishermen, seamen, and animal caretakers.

BULLETIN TODAY, MON., JAN. 2, 1984

UNIT V

Second-Hand Smoke

Smoke from the burning end of a cigar, cigarette or pipe, known as "second-hand smoke", contains thousands of harmful compounds. They include carbon monoxide, hydrogen cyanide, cadmium, ammonia, nitrous oxides, tar and nicotine.

Second-hand smoke contains 50 times more ammonia, five times more carbon monoxide, and twice as much tar as the smoke being inhaled by the smoker. In the seat next to a smoker, the carbon monoxide level reaches almost twice the legal maximum for industry.



Exposure to tobacco smoke can make non-smokers cough, sneeze, and suffer eye irritations. Young children of parents who smoke are more likely to have colds, bronchitis, and pneumonia. Second-hand smoke can trigger an asthma attack in nonsmokers who have asthma.

What You Can Do About It

Nonsmokers (75% of the population) overwhelmingly feel that second-hand smoke is a danger to their health and support restrictions on public smoking. Even 55% of smokers feel their habit is hazardous to others and support such restrictions. Many will stop smoking if asked politely.

In a restaurant, always ask to sit in a non-smoking section. If there is none, ask to move to another table if tobacco smoke is bothering you.

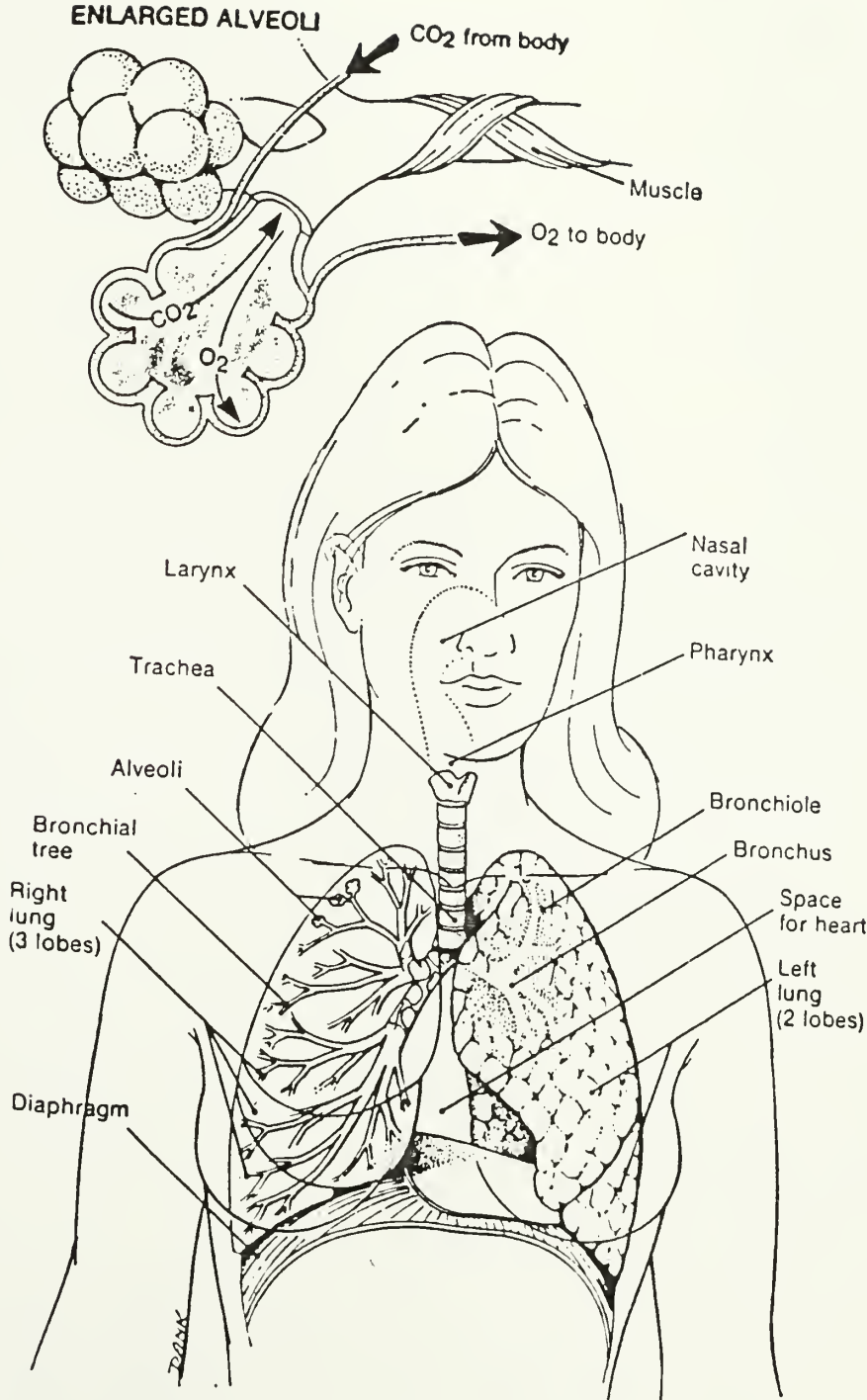
In a car, ask anyone who lights up to stop smoking, or keep a window open.

At work, let your co-workers know that second-hand smoke concerns you, and put a "no smoking please" sign near your desk or work station. Ask your employer to establish a no smoking policy.

In your home, make it a no-smoking area with possible exceptions of the porch or yard. Keep childrens' rooms smoke-free. Let visitors know how you feel about second-hand smoke.

(Source: Mass. Dept. of Public Health and Mass. Hospital Assn.)

UNIT V



UNIT V

Philippine medicinal plants

By VICENTA
MENDOZA-ESCOBAR

IN many technologically advanced countries today, there is a trend towards a "return to nature." There is much interest in ecology. A new appeal for home gardens, not only of ornamental plants but also of vegetables. A preference of chic apartment dwellers to grow house-plants instead of using man-made decorations. A willingness to pay even higher prices for so-called organically grown food with no artificial additives. A keen revival of interest in folk medicine, especially in the use of plants and herbs to alleviate common ailments and to maintain health and vigor.

All these have come about because of the realization that technology's "progress" can also bring new dangers and hazards to health.

In the field of medicine, the advent of the age of the "miracle drugs" like antibiotics and steroids has not been without repercussions as discovered later. Indiscriminate use of antibiotics is now known to upset the body's normal microbial balance and sometimes lead to the development of antibiotic resistant pathogens that are harder to combat. Thus, prudent physicians prefer to hold potent antibiotics in reserve until a greater need for them arises.

According to statistics, even in developed countries, "About 60% of people who fall ill do not go to see a doctor. About 35% never see a doctor when they are ill, and 26% decide on their own initiative what remedies they will buy. Between 41% and 50% of all medicine sold every year are self-prescribed household remedies like aspirins, cough mixtures, throat sprays, laxatives, vitamins, antibiotics and other drugs that can easily be obtained even without prescriptions.

It is said that "Americans spend about a half billion dollars a year for prescription drugs for which there is at present no valid proof of efficacy. Unfor-

tunately, whether a drug is effective or not, it can still cause adverse reactions and not infrequently, does."

It is reported that the incidence of complication in drug therapy is about 10%, and that approximately 5% of patients admitted to general hospitals suffer from serious drug reactions. About one and a half million hospital admissions per year in the United States are necessitated by diseases caused by drugs.

Why are we citing these facts? Because according to statistics and studies made abroad, there would be less serious complications from the dangers of self-medication if only "family cures" and "old wives simples" are not abandoned for chemical formulas that can cause more disturbance to the body's system. In other words, if people who are sick would not see a physician for the proper diagnosis and treatment of their illnesses, it would be preferable if their self-treatment would avail of the plants and herbs that are traditionally associated with folk medicine instead of using powerful drugs that are best administered under the supervision of competent physicians.

As a matter of fact, even physicians are encouraged to use medicinal plants, as they are said to give better results in the long run than some of the synthetic and chemical drugs in use. After all, it is said that unlike synthetics and chemicals, medicines from plants were developed in conjunction with life.

The well-handled use of medicinal plants, like in the case of Red China where the supervised practice of herb doctors was encouraged, can represent a considerable economy of consumption of our country's health services. Especially when



SABILA ALOE VERA, better known as Sabila to many Filipinos, is a well-known cathartic and cure for baldness. It is also used for skin burns, abrasions and irritations.

we consider that most of the constituents of our medicinal household remedies are imported, costly, and sometimes foisted fake to our suffering people.

The Philippines abounds with plants with many medicinal uses. The early Spanish colonists were impressed with the fact that our forefathers "possessed the precious secrets of the curative virtues of many plants and herbs.

Motivated by the desire to help others because they have known the "hardship and despair of being sick and not knowing where to go or what to do..." and also, "to make known the immense richness of this

fertile and delightful land and to encourage others to continue the work..." a number of eminent Spanish friars wrote some of the first published books in the Philippines about our medicinal plants, their habitat, scientific and local names, their uses, descriptions, including beautiful illustrations of the plants. A number of the books though were written with the aim to make it "brief, easy and adequate to help out the needs of the sick and within their capacity to use."

It is said that all the plants



SAMBONG, a common herb here, has medicinal uses too



MEDICINAL plants can easily be grown in backyard gardens.

and herbs in the world are no good if one does not know how to use them. In our rich fields are many plants and herbs that can alleviate many ailments. Do we know these plants? They are ours for the picking.

Dr. Eduardo Ouisumbing lists no less than 858 medicinal plants in his book. Yet, even our most basic medicines are actually 95% imported and only re-packed here. Unless we learn more of our medicinal plants, we shall always be dependent upon importations even for such simple matters as treating a wound or relieving flatulence.

The study of medicinal plants has long fascinated us. Since the Philippine flora is so rich, we have made it a point to limit our studies to certain plants that we consider interesting because they fulfill most of the requirements of the following criteria we have for selection.

1. Only plants of known efficacy are included, preferably those that are listed in Pharmacopoeias, Formularies, Herbals, or have been the subject of scientific investigation and research.

2. Preference is given to plants that are easy to grow and maintain, or common enough so that people could avail of them easier and cheaper than if they have to go out to buy patent medicine for common ailments.

3. Concentration is given to plants used to alleviate common ailments like stomach aches, headaches, colds, coughs, gastroenteritis, diarrhea, fevers, flatulence, constipation, intestinal worm infestations, wounds,

burns, and skin irritations, and other chronic ailments like diabetes, rheumatism, hypertension, etc., which comprises the main target market of the patent medicine trade.

4. The plant must be easy to prepare for use.

5. Plants with ornamental value or are useful as vegetable and fruits are more appreciated.

6. In consideration of some people who might want to grow medicinal plants but are hampered by limited space, preference is also given to plants which can be grown even in flower pots.

7. Plants with potential industrial economic value are given due consideration and further studies.

Thus, from Nature's drugstore, I would like to share with you some of my favorite plants that heal:

Sabala Aloe vera of the *Liliaceae* family is a short-stemmed herb with pale green white-spotted sword-shaped fleshy leaves that are smooth except for weak marginal spines at the margins, and formed in a rosette. Its radial symmetry makes *Aloe vera* an attractive ornamental plant common in the Philippines. It is a perennial herb that lives up to 10 or 12 years in loam soil under full sunlight. Its industrial economic value are given due consideration and further studies.

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The *Ebers Papyrus* written about 1500 B.C. includes *Aloe vera* among its list of remedial agents for different diseases. Dioscorides mentions it in his influential materia medica written in 77 A.D. Today, even with advent of modern drugs, *Aloe vera* still hold its own and is still recognized in several pharmacopoeias.

Aloe, which is the dried juice extracted from the cut leaves of *Sabala* is a well-known cathartic (a medicine used to promote the evacuation of the bowels) that is the basis of many patent medicines abroad. Its dose is 2 to 10 grains (each grain is equivalent to 60 mg.). For most people who might have *Sabala* but have no way of weighing the dried juice, it could be mentioned that the grain weight is said to have originated from the weight of a grain of wheat, which for our purpose, we can approximate by forming the about-to-dry juice to about the shape of a large grain of palay.

The cathartic effects of *Aloe* occur about 8-12 hours after it is taken and it is most effective in chronic constipation which is due to atony (loss of tone) of the lower bowel. However, it should be avoided in cases where there is inflammation of the intestines, in cases of hemorrhoids and during pregnancy. It is useful for amenorrhea (absence of menstruation) as it is an emmenagogue (an agent that stimulates menstrual flow). *Aloe* also promotes the flow of the bile and is used for pains in the kidney. In small doses it serves as a stomachic tonic and is even given for peptic ulcer. In larger doses it is a laxative and in still larger doses it is a purgative.

The radiology department of the University of Pennsylvania found the fresh juice of the *Aloe vera* as more effective in treating radiation burns in patients than any other available preparation. Used in ointment or by direct application of the inner surface of the leaf, the juice is used for dressing x-ray or radium dermatitis especially when ulceration occurs. It is known to increase the rapidity of healing of acute x-ray burns.

Aloe vera has been used for eczematous conditions of the skin in China, India and Tibet. Even Cleopatra is said to have used *Aloe*, probably in much the same way as the Filipinas of yesterday, who used to mix its juice with their *gogo* as a shampoo to induce the healthy growth of hair. The juice of *Aloe vera* is said to prevent the falling of hair and is one of the few plants reputed to cure baldness.

For centuries, the fresh mucilaginous juice of the leaves of *Sabala* has been used for the treatment of burns, abrasions, and other skin irritations. It gives relief from pain and itching, promotes healing and tends to minimize ulceration and scar

formation. It is also useful for bruises and contusions. They are applied directly to injuries and wounds to promote healing. *Aloe vera* is recommended not only for the treatment of deep thermal burns and in radiation burns but also for sunburn.

All in all, *Sabala* amply meets the 7-point criteria we have for selection of medicinal plants to know. It is an attractive ornamental plant that is easy to grow and propagate. Especially when one has small children in the house who could get bruised, wounded or burned it is easier and more effective to use the fresh juice of *Sabala* to relieve the complaint and prevent infection. The efficacy of *Sabala* dates from antiquity to our space age. It has common everyday use and one has to pluck its leaves for immediate application.

Besides it is on record that the Philippines imports a considerable amount of *Aloe* for medicinal use. Why? ... when *Aloe vera* is widely distributed and easily grown in our bountiful land? Yes. Why?—●—

7 022290 A 1.		7 013410 B 1.		7 011340 C 1.	
BROWN SUGAR		BLACKSTRAP MOLASSES		HONEY	
CALORIES	540.850	770.000	698.640	1030.560	
MORO FAT	0.000	0.000	0.000	0.000	
SUCROSE	-0.000	-0.000	89.216	6.441	
VIT-A-RE	0.000	0.000	0.000	0.000	
B6	0.000	0.000	0.000	.068	
VIT-E	0.000	0.000	0.000	0.000	
BIOTIN	0.000	0.000	0.000	0.000	
CALCIUM	123.250	0.000	2243.520	15.950	
ALUMINUM	0.000	0.000	0.000	0.000	
COFFEE	0.000	0.000	0.000	0.000	
SELENIUM	0.000	0.000	0.000	0.000	
PROTEIN	0.000	0.000	0.000	1.017	
FOLY-U FAT	0.000	0.000	0.000	0.000	
OTHER SUGA	0.000	0.000	27.880	253.233	
THIAMIN	.015	0.000	.361	.017	
B12	0.000	0.000	0.000	0.000	
VIT-K	0.000	0.000	0.000	0.000	
SODIUM	43.500	2.000	314.800	16.950	
PHOSPHORUS	27.550	0.000	275.520	20.340	
BARIIUM	0.000	0.000	0.000	0.000	
FLUORINE	0.000	0.000	0.000	0.000	
STRONTIUM	0.000	0.000	0.000	0.000	
TOTAL FAT	0.000	0.000	0.000	0.000	
CHOLESTERO	0.000	0.000	0.000	0.000	
CRUDE FIFE	0.000	0.000	0.000	0.000	
RIBOFLAVIN	.011	0.000	.623	.126	
VIT-C	0.000	0.000	0.000	3.390	
PANTOTHENI	0.000	0.000	0.000	0.000	
POTASSIUM	498.800	6.000	9600.560	175.890	
IODINE	0.000	0.000	0.000	0.000	
COBALT	0.000	0.000	0.000	0.000	
MANGANESE	0.000	0.000	0.000	0.000	
ZINC	.073	.040	21.320	.271	
SAT'D FAT	0.000	0.000	0.000	0.000	
CARBOHYDR	139.780	192.000	180.400	278.997	
VIT-A- IU	0.000	0.000	0.000	0.000	
NIACIN	.220	0.000	6.560	1.017	
VIT-D- IU	0.000	0.000	0.000	0.000	
FOLIC ACID	0.000	0.000	0.000	0.000	
IRON	4.730	.220	52.800	1.695	
COPPER	0.000	0.000	0.000	0.000	
CERBIUM	0.000	0.000	0.000	0.000	
MOL YBETIUM	0.000	0.000	0.000	0.000	

ENTER DATA...

ENTER DATA...

	? 801107 HUMAN MILK	? 801078 WHOLE MILK	? 021500 SOYMILK	801059 1.0 FILLED MILK	? 801089 1. LINFAT MILK
CALORIES	70.000	64.000	33.000	63.000	51.000
MONO FAT	1.660	1.060	0.000	1.780	.560
SUCROSE	0.000	0.000	0.000	0.000	0.000
VIT.A- RE	0.000	0.000	0.000	0.000	0.000
B6	.011	.042	0.000	.040	.040
VIT.E	0.000	0.000	0.000	0.000	0.000
BIOTIN	0.000	0.000	0.000	0.000	0.000
CALCIUM	32.000	119.000	21.000	128.000	128.000
ALUMINUM	0.000	0.000	0.000	0.000	0.000
COFFER	0.000	0.000	0.000	0.000	0.000
SELENIUM	0.000	0.000	0.000	0.000	0.000
PROTEIN	1.030	3.280	3.400	3.330	3.480
POLY-U FAT	.500	.140	0.000	.750	1.070
OTHER SUGA	0.000	4.900	0.000	0.000	4.900
THIAMIN	.014	.038	.080	.030	.040
B12	.045	.356	0.000	.342	.382
VIT.K	0.000	0.000	0.000	0.000	0.000
SODIUM	17.000	49.000	0.000	57.000	52.000
PHOSPHORUS	14.000	93.000	48.000	97.000	100.000
BARIUM	0.000	0.000	0.000	0.000	0.000
FLUORIDE	0.000	0.000	0.000	0.000	0.000
STRONTIUM	0.000	0.000	0.000	0.000	0.000
TOTAL FAT	4.380	3.660	1.500	3.460	.192
CHOLESTERO	14.000	14.000	0.000	2.000	8.000
CRUDE FIBE	0.000	0.000	0.000	0.000	0.000
RIBOFLAVIN	.036	.161	.030	.123	.113
VIT.C	5.000	1.470	0.000	.900	1.000
PANTOTHENI	.223	.313	0.000	.301	.350
POTASSIUM	51.000	151.000	196.000	139.000	162.000
IODINE	0.000	0.000	0.000	0.000	0.000
BORON	0.000	0.000	0.000	0.000	0.000
MANGANESE	0.000	0.000	0.000	0.000	0.000
ZINC	.170	.380	0.000	.360	.400
SAT'D FAT	2.010	2.280	0.000	.770	1.200
CARBOHYDR	6.890	4.650	2.200	4.740	4.970
VIT.A- IU	241.000	138.000	40.000	7.000	244.000
NIACIN	.177	.084	.200	.087	.070
VIT.D- IU	0.000	0.000	0.000	0.000	0.000
FOLIC ACID	.005	.005	.016	.005	.000
IRON	.030	.050	.800	.050	.050
MAGNESIUM	3.000	13.000	0.000	13.000	14.000
CHROMIUM	0.000	0.000	0.000	0.000	0.000
MOLYBDENUM	0.000	0.000	0.000	0.000	0.000
ARGININE	43.013	119.130	276.352	120.946	126.394
HISTIDINE	23.072	89.216	110.432	90.576	94.656
ISOLEUCINE	56.032	197.850	159.936	200.860	209.814
LEUCINE	93.442	321.702	278.528	326.606	341.818
LYSINE	68.062	259.776	245.888	263.736	273.690
TOTAL S AA	40.046	112.832	114.240	114.552	119.712
PHE + TYR	99.045	315.930	355.232	320.746	335.194
THREONINE	45.979	147.594	161.024	150.250	157.618
TRYPTOPHAN	16.974	46.182	46.240	46.886	48.798
VALINE	62.954	219.891	169.728	223.243	230.277

1.00 X 100GRAMS

? TEMPEH A 1.		? 002210 0 1.		? TOFU FIRM A 1.	
TEMPEH FRESH		BEUF CHUCK COOKED		TOFU FIRM	
CALORIES	44.510	CALORIES	60.669	CALORIES	36.288
MONO FAT	0.000	MONO FAT	1.185	MONO FAT	0.000
SUCROSE	0.000	SUCROSE	0.000	SUCROSE	0.000
VIT.A- RE	0.000	VIT.A- RE	0.000	VIT.A- RE	0.000
R6	.235	R6	.100	R6	0.000
VIT.E	0.000	VIT.E	0.000	VIT.E	0.000
RIOTIN	.015	RIOTIN	0.000	RIOTIN	0.000
CALCIUM	40.257	CALCIUM	3.686	CALCIUM	15.139
ALUMINUM	0.000	ALUMINUM	0.000	ALUMINUM	0.000
COFFER	0.000	COFFER	0.000	COFFER	0.000
SELENIUM	0.000	SELENIUM	0.000	SELENIUM	0.000
PROTEIN	5.528	PROTEIN	8.505	PROTEIN	4.054
POLY-U FAT	0.000	POLY-U FAT	.054	POLY-U FAT	0.000
OTHER SUGA	0.000	OTHER SUGA	0.000	OTHER SUGA	0.000
THIAMIN	.079	THIAMIN	.016	THIAMIN	.026
R12	1.106	R12	.341	R12	0.000
VIT.K	0.000	VIT.K	0.000	VIT.K	0.000
SODIUM	0.000	SODIUM	14.884	SODIUM	1.899
PHOSPHORUS	68.040	PHOSPHORUS	45.360	PHOSPHORUS	53.582
BARJUM	0.000	BARJUM	0.000	BARJUM	0.000
FLUORIDE	0.000	FLUORIDE	0.000	FLUORIDE	0.000
STRONTIUM	0.000	STRONTIUM	0.000	STRONTIUM	0.000
TOTAL FAT	2.126	TOTAL FAT	2.693	TOTAL FAT	1.985
CHOLESTERO	0.000	CHOLESTERO	25.799	CHOLESTERO	0.000
CRUDE FIRE	.397	CRUDE FIRE	0.000	CRUDE FIRE	.028
RIBOFLAVIN	.184	RIBOFLAVIN	.065	RIBOFLAVIN	.009
VIT.C	0.000	VIT.C	0.000	VIT.C	.113
PANTOTHENI	.147	PANTOTHENI	0.000	PANTOTHENI	0.000
FOTASSIUM	0.000	FOTASSIUM	68.040	FOTASSIUM	0.000
IODINE*MG	0.000	IODINE*MG	0.000	IODINE*MG	0.000
BORON	0.000	BORON	0.000	BORON	0.000
MANGANESE	0.000	MANGANESE	0.000	MANGANESE	0.000
ZINC	0.000	ZINC	1.114	ZINC	0.000
SAT'D FAT	0.000	SAT'D FAT	1.293	SAT'D FAT	0.000
CARBOHYDR	2.410	CARBOHYDR	0.000	CARBOHYDR	.624
VIT.A- IU	11.907	VIT.A- IU	4.820	VIT.A- IU	0.000
NIACIN	.714	NIACIN	1.304	NIACIN	.028
VIT.D- IU	0.000	VIT.D- IU	0.000	VIT.D- IU	0.000
FOLIC ACID	.028	FOLIC ACID	.001	FOLIC ACID	0.000
IRON	.142	IRON	1.077	IRON	.907
MAGNESIUM	0.000	MAGNESIUM	5.103	MAGNESIUM	51.597
CHROMIUM	0.000	CHROMIUM	0.000	CHROMIUM	0.000
MOLYBDENUM	0.000	MOLYBDENUM	0.000	MOLYBDENUM	0.000

UNIT V, HO# 8

FARMS

ABSENTEE LANDLORD VS. OWNER-CULTIVATED

1. There are two main systems of agriculture in the world. The large "absentee landlord" and the "owner-cultivated" systems.

2. "Absentee" usually means big, either very rich, privately owned, or companies planting cash crops. Cash crops usually means products that are shipped to other countries.

3. The "Owner-cultivated" means smaller parcels from which the livelihood and foods of a small group of people come from. Owner-cultivated means more people work the land, and for reasons of economy, less chemicals are used. It is more efficient because it is less damaging to the soil. The owner is more careful about the land. More people are employed and more people are fed better with this system.

4. The Absentee-landlord could be a foreign company which buys or rents thousands of acres. Foreign plantations with such big holdings by intention or circumstance end up pushing the small farmers off the land. Where will these farmers go? How will they get their food if they don't have good land? How will they earn their money when they have only farming skills?

5. All the other good lands are already occupied. The people have to settle on areas with bad soil and big rocks. When too many people are crowded in these unproductive areas where God never intended people to live on, famine results.

6. In many famines, there were enough food hidden away by food merchants. The food was hidden not too far away from the hungry people. There was only a little amount of food to buy in the stores. The cost of the food went very high. The poor people did not have the money.

7. When there is famine, countries receive food from the West. This charity is called Foreign Food Aid. People receive and learn to eat foreign foods like white flour, a crop not planted in small tropical countries. Eating these imported staple foods leads to a change in the people's eating habits. When the eating habit has been changed, the imported food compete with local foods.

UNIT V

CONTENT PROCESS

(9:00) Smoking: There are three hand-outs on tobacco smoking. The group will be divided into three; each group taking on one of the three articles. Each member of each group is to make a 10 minute oral presentation of the presenter's position on the assigned article, whether agreeing or disagreeing with the statements of the article.

(10:45) Which produces more, the Absentee-landlord farm or the Owner-cultivated farm? The Attendees divide themselves into groups A and B representing the two types of farms. Half of group A will be interviewers, and the other half of group A will be interviewees. All interviewers will give a 7 minute report on the person interviewed.

(11:30) The Massachusetts Nutrient Data Bank print-out makes an easy comparison chart between nutrient in interchangeable foods. This comparison allows the researcher to see which between two interchangeable foods will provide more of a needed nutrient. For instance, wholewheat bread, in addition to its nutritional advantages, provides roughage or fiber. The fiber intake of the average American adult is low at .8 - 3.2 gm of crude fiber per day (Food, Nutrition and Diet Therapy, Krause and Mahan, W.B. Saunders, Philadelphia, 1979). Crude fiber is the fiber

which withstands, and remains, after vigorous processing through acid and alkali and multi-step treatment of the food in the process of packaging. Dietary fiber is the material in food, mostly of plant source, that is not digested by humans.

(1:30) The Respiratory System: There is nothing like following the path of the numerous toxic chemicals through the respiratory system to convince the young nonsmokers of the need not to start the habit.

(2:00) No one will argue against a short stroll, and while at it to identify and collect edible and medicinal plants for the scrapbook.

(2:30) The art of making a scrapbook learned as a child is often lost in the adult. This is a good time to relearn how to make a scrapbook of pressed flowers and leaves.

(3:00) The interviewers this morning will report on the persons interviewed. The interviewer will repeat direct quotes from the interviewed on why he believes the Absentee Landlord (or Owner Cultivator as the case may be) is the better crop producer.

(3:55) Homework. Reminding the group (whether workshop or elementary pupils) of what is expected for the next day is an efficient practice. What this does is it avoids having someone say the next morning, "You didn't tell us you wanted us to read that material...."

UNIT V

ACTIVITY RATIONALE

Smoking: Filipino youth start smoking much earlier than Western youth. The dangers of smoking are not as publicized in the Philippines as it is in the US. For instance, while cigarette smoking advertising is banned on television in the US, it is still not banned in the Philippines.

Article #1, the Multinational Pushers talk about the widespread suspicion that cigarettes sold in the Philippines and other powerless countries have higher levels of tar, nicotine and carbon monoxide than those in the West. When health warnings were proposed in the Philippines, the article claims that the tobacco barons immediately reminded the government that cigarette and tobacco taxes contribute 47 percent of the government revenue. Article #2, Second Hand Smoke talks about nonsmokers exposed to smokers. The nonsmokers cough, sneeze, and suffer eye irritations. Young children of parents who smoke are more likely to have bronchial problems. Article #3 is about smoking and lung cancer. The participants are encouraged to disagree with the article, and by so doing, the rest of the group get to hear the arguments of the other side.

The terminologies Absentee Landlord and Owner Cultivated must be clearly defined. Differentiating these

two farms is important. Each side's concern for ecology, people's welfare, social relationships in the area, etc. should also be considered. Under what category do the huge multinational cash crops come in? This is the core of this lesson.

Who owns the farm? This activity will remind the Attendees that interviewing is another way to learn from others. Interviewing is an activity enjoyed by elementary school children. Interviewing develops a systematic way of thinking for the interviewee. It develops poise and presence of mind for the interviewer.

It is possible that the Attendees, as with many people I have met in the US do not know the sequential effect of carbon monoxide on the circulatory system and the heart. I have not met anyone who had previously heard that the smoker's cough is the chest muscles pushing out the fluid from the lungs. The Attendees may not know certain information given in these readings. Told of these facts, it is feasible that they would pass on the information to the elementary pupils, who in turn might be deterred from taking up the habit of smoking. The Attendees will have a clear idea of the hazards of smoking, the fragility of the alveoli and cilia, carbon monoxide replacing the oxygen, the enormous numbers of toxic chemicals in the smoke. These are enough reasons to pass on warning to their pupils.

The sky is blue, the weather is dry, and the sun is

out, half an hour outdoors is a treat. It is also a good opportunity to show others one's ability to identify edible and medicinal plants. Different people acknowledge different plants' curing abilities, depending on what their grandparents told them. When ten people go out and bring back the same plant claiming to treat different things, this is education for the listeners. This is what we hope to hear.

The finished scrapbook will remind all those present that there is much out there that elementary school children can put into a scrapbook including drawings of friends and relatives (in lieu of photographs which are not always available), sketches of rooms, buildings, insects, plants, all done as cut-outs, and framed on larger leaves before pasting on scrapbook.

This activity will include other ideas and other arguments on the issue of which farm owner produces better food to eat, which takes better care of the environment, atmosphere, soil, which farming system is suitable to the circumstances of the area or cause more poverty for others.

The issue of fiber in the diet and other less discussed food topics such as it is being studied more and more by food scientists. The drastic changes in the Philippine diet as indigenous foods are replaced by imported processed foods is being studied to determine any rise in noninfective diseases of the digestive system, cancer,

hyperlipoproteinemia and diabetes. Most of the evidence is epidemiological comparing disease incidence in countries with high dietary fiber intake with the incidence of these diseases in countries where the fiber intake is low, but where a number of other factors are also present.

UNIT VI, HO# 1

INDIGENOUS FOODS = BETTER HEALTH, BETTER ECONOMY

WORKSHOP

AGENDA

10:00 - 11:00 Debate: On the board in one column, Poor Man's Reasons for Hunger. In another column, the Rich Man's Reasons.

11:00 - 11:15 Lecture: The nature of the Banana Industry; the Culture of the Banana Planters.

11:15 - 12:00 Wrap-up. What in all these can be passed on to the elementary school pupil? Question Box.

12:00 - 1:00 Picnic Lunch

1:00 - 2:30 Field Trip: Banana-exporting Plantation.

2:30 - 3:00 Goodbyes.

UNIT VI, HO# 2

WORKSHOP

INSTRUCTIONAL PLAN

TOPICS

Causes of Hunger
Cash Crop
Nature/Culture

HAND-OUTS

Agenda for Unit VI
Instructional Plan for Unit VI
Hunger, According to the Rich Man, Poor Man
Political Economy of Banana Industry
Nature/Culture, according to Paulo Freire.

ACTIVITIES

Debate
Field Trip

REFERENCES

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Brown, C. (1984) Literacy in Thirty Hours in Northeast Brazil. Chicago: Alternative Schools Network.

UNIT VI, HO# 3.

CAUSES OF FAMINE

ACCORDING TO THE RICH, ACCORDING TO THE POOR

The rich man says:

- 1) The world is overpopulated. The world needs Family Planning. There are not enough farms, food, and other material things to go around.
- 2) The poor are lazy, ignorant, and do not know how to help themselves.
- 3) The poor should start farming Western style, called the Green Revolution, for much bigger yields.
- 4) The rich people say that the poor should find new water sources which will bring better yield.
- 5) The rich people agree that it is a good idea for the poor to borrow money from the World Bank, International Monetary Fund (IMF) and modern technology, and find Foreign Aid so the poor can improve themselves.
- 6) The rich blame nature for famines. The rich say that there has not been enough rain which is why there is famine.
- 7) The rich people tells us that in the last few years, the deserts have been spreading, moving to where people are.
- 8) The rich say that some countries have such bad weather that too little food grows.

The poor man says:

- 1) Enclosures cause fat animals and thin people. There are too many fenced-in land keeping the poor people out. Africa has a lot more land per person than Europe. The Philippines has more space per capita than the US. Peru has about the same number of people today as a hundred years ago. But Africa, the Philippines and Peru have very high poverty and malnutrition today. So overpopulation is not the problem.
- 2) There will be food for everyone if farmers were left alone to plant food for the community. Food becomes scarce if the farm is given to multinationals and planted with export products alone. Eating foods that are not native to the country, even if they are cheap, will make the community and farmers poor.
- 3) The Green Revolution means planting high yield seeds. This seeds were created by scientists paid by Western countries. For these seeds to grow, the farmers need lots of water, perfect weather and lots of expensive, imported chemicals (fertilizers, pesticides, herbicides, rodenticides, etc.)
- 4) Farmers need extra water only if they plant the Green Revolution seeds. The old seeds do well without extra water.
- 5) Studies show that the neocolonies which borrow money from World Bank and IMF sink deeper into economic problems.

- 6) There is enough rain for traditional seeds. The high breed, Green Revolution seeds always need excessive water.
- 7) Owner-cultivated lands are more efficient producers of food than large farms that use too much modern outputs.
- 8) Plenty of good food will grow if people will plant the native foods of their area. Native foods which the local people have eaten for centuries grow best and cause few farming problems. Native foods need little or no chemicals to grow.
- 9) The deserts are not spreading to where the people are. The people are being made to move to deserts because their fertile land is needed for cash crops.

FOOD AS A HUMAN RIGHT: THE CASE AGAINST BANANA PLANTATIONS IN THE PHILIPPINES

Randolf S. David

In the name of "development," peasants throughout the Third World have been convinced to turn their small plots over to agribusiness for use in producing cash crops for the world market. This paper concerns one tragic example of this process—the banana export industry in the Philippines. Formerly self-provisioning small farmers have been drawn into a system controlled by three transnational corporations (United Brands, Del Monte, and Castle & Cooke) and plunged into a cycle of perpetual indebtedness and exploitation. In such situations, food has become an endangered need.

"Food as a Human Right" is an unusual way of approaching the problem of food. For food is normally regarded as a basic human need, and from this perspective, people and governments are expected to naturally attune their productive capabilities to its satisfaction. To assert it as a right sensitizes us to certain realities that are otherwise not evoked when food is merely described as a basic need. These realities might include the following: (a) that the need for food of some people is being denied; (b) that important resources for growing food are being diverted into other activities; and (c) that a and b are systematic consequences of social structures that are often taken for granted as natural and correct ways of organizing life.

To put it briefly, I suggest that the assertion of a right to food is a forceful way of alerting us to the fact that in many parts of the world today, food has become an endangered need.

The threat to food has been most tragically experienced by small peasant communities, easily the most numerous in the Third World, who grew their own basic food requirements. In the name of development, their national governments encouraged the utilization of their small fertile plots by agribusiness corporations to produce cash crops that were in demand in the world market. They were assured that the sooner they were drawn into the cash economy, the better for them and the whole country. Domestic food, they were told, was henceforth going to be provided more efficiently by modern corporate entities that had the managerial expertise, capital, and technical know-how needed to grow the whole country's basic necessities. In the case of the Philippines, self-sufficiency in rice was indeed accomplished in this manner. The corporate farms that produced rice were not more efficient than the traditional

This paper is based on information collected in the course of a study of the role of transnational corporations in the Philippine banana export industry, undertaken by the Third World Studies Center from 1979 to 1981.

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small farms, but since they covered additional lands and used more capital per unit of land, they turned out massive quantities of the cereal. The tragedy is that the high cost of producing it and the low purchasing power of displaced peasants kept the rice out of the reach of those who needed it most.

In this paper, I look at the development of the banana export industry in the Philippines, and try to illustrate the process by which formerly self-provisioning small farmers were drawn into a system controlled by agribusiness, and how this system functioned to keep them in a cycle of perpetual indebtedness.

THE PHILIPPINE BANANA INDUSTRY

Filipinos started to grow bananas for export in 1967, primarily in response to the liberalization of the tariff on this fruit in the Japanese market. From an initial major shipment of 357,783 kgs in 1968, banana exports rose to 23,320,000 kgs the following year when the first plantations became fully operational. From 1969 to 1975, the industry registered an average annual increase of 533.12 percent. Its phenomenal growth made it, in 1975, the Philippines' no. 6 foreign currency earner. Its dependence on the Japanese market, in which its share in 1978 rose to 88.1 percent, has been the hallmark of the industry since its inception. Faced with the saturation of the Japanese market, Philippine bananas are presently being diverted to destinations in the Middle East, but this has provided only limited relief because of the total closure of the Iranian market in 1979. Nonetheless, for 1979 the country exported 845,174.1 MT with a book value of US \$95.5 M.

The banana plantations now occupy over 25,000 hectares of Mindanao's most fertile and typhoon-free lands. They are concentrated in two principal sites: the Davao del Norte area and General Santos City in South Cotabato. The labor force in these plantations has been placed at 29,000 workers, but this is probably a low figure, in view of the fact that a number of casual workers hired by labor contractors are not reported by some companies as their own employees.

TRANSNATIONAL CORPORATIONS IN THE INDUSTRY

The same transnational corporations (TNCs) who gave birth and nurtured the so-called "banana republics" of Central America control the industry in the Philippines. These are United Brands (formerly United Fruit), Del Monte, and Castle & Cooke. They have been joined by a Japanese corporation, Sumitomo, which has put up its own plantation in joint venture with Filipino investors. United Brands has a working arrangement with only one very big corporate grower, TADECO, which occupies the largest contiguous area of banana land. Del Monte, on the other hand, has nine associate corporate producers, each occupying anywhere from a few hundred to over a thousand hectares. Castle & Cooke is unique in the sense that it obtains the bulk of its Philippine bananas from 377 small contract growers, each owning anywhere from less than one hectare to 116 hectares. In addition, it is supplied by three corporate growers who are all in one way or another affiliated with Castle & Cooke's local subsidiary, STANFILCO. There are a few so-called "independent" producers who export their own bananas, but these growers are at the mercy of the TNCs, two of

whom allow the so-called independent corporate growers to load their fruit on the same boat they (the TNCs) chartered for their own fruit. Of course, at any time they may simply refuse to share their boats with them.

All three TNCs pay free on board (f.o.b.) prices for their suppliers' bananas, with letters of credit opened in Hong Kong. The Hong Kong office then brings them to the Japanese market without the fruit actually touching the Hong Kong port. In Japan, Philippine bananas are handled by subsidiaries of the same TNCs that shipped them.

The mad rush to consolidate lands for the purpose of growing export Cavendish bananas began in the late 1960s and continued up to the early 1970s. The first ones to try the new crop were, as expected, the businessmen who already controlled a few hundred to a thousand hectares. These were the same groups that had earlier gone into the growing of hemp, a product which was fast being replaced by synthetic fibers in the international market.

United Brands—TADECO

TADECO was one of these groups. Occupying 1,024 hectares of land adjacent to the Davao Penal Colony reservation, it quickly expanded its land area by concluding a nominal joint venture partnership with the Bureau of Prisons, an arrangement that allowed it to lease more than 3,000 hectares of prison lands at the rate of only ₱250 per hectare per year. As part of the deal, TADECO offered to hire 800 prisoners in the farms as a way of contributing to the rehabilitation aims of the penal colony. Some of these lands taken over by TADECO, however, had been part of the farms being tilled by Ata tribesmen, one of the many cultural communities in Mindanao. Since TADECO moved into all the low-lying lands, these tribal groups were further pushed into the less accessible uplands. As the corporation expanded its holdings through the 1970s, even the Christian communities occupying the adjacent lowlands, such as Barrio Tibungcol, were forced to move out. It would be naive to talk about the lawful rights of settlers in instances like this, for in the first place, what the settlers were confronting was the presence of heavily armed private armies. In the second place, the lands involved were public reservations to which obviously the actual tillers possessed no titles.

Del Monte

While Del Monte has been in the pineapple business in the Philippines since 1926, it appeared on the banana scene only in the 1970s. Its technique was to enter into contract with a few Filipino corporate growers who wasted no time in consolidating lands for banana production. The usual approach was to conduct soil surveys to determine the suitability of the land regardless of whether such lands were already planted to other crops. When a site had been chosen, agents and canvassers were sent in teams to persuade, cajole, entice, or mildly coerce existing occupants of the land to give up their farms. If some lands were discovered in the process to be untitled, no matter if they were settled and cultivated, force was the only language used. In general, lease was preferred to purchase because it required a smaller capital outlay. Moreover, while most small owner-cultivators attached a sentimental value

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to ownership, since these lands were mainly secured as homesteads, their resistance was quickly subdued by offers of several years of advanced lump sum rental. This money found varied uses. For some landowners of tenanted lands, the money was used to pay off the tenants so that they would voluntarily renounce their claims to the land under the Land Reform Law. For the smaller landholders, the money was often used to buy farm lots in other areas; at other times, it was simply squandered in unnecessary consumer items. But the greatest tragedy was that of the peasants who were simply evicted because someone else had titled these lands in his name. In ordinary times, a peasant family would have been able to feed its members without ever worrying about land rights and titles. The 70s, however, were a period of boom for export bananas, and every businessman who wanted a piece of the action was in the market for lands that could be leased, bought, or simply grabbed.

Castle & Cooke

The Castle & Cooke group introduced a new element in this quest for banana lands. Through its affiliate corporate growers, the company first offered lease contracts to the farmers. Farmers who refused to lease were invited to become contract growers for the company, with the latter advancing all the seeds and capital and guaranteeing the purchase of all the bananas harvested from the grower's farm. The grower's contributions were to be the use of his land and the labor required in running the farm. The company pledged to secure the loans necessary for the development and conversion of the lands for banana cultivation. The majority of Castle & Cooke's 377 contract growers used to till their own lands to grow staple crops like rice and corn, and vegetables. Today they must buy these from the market.

IMPACT ON THE RICE FARMS OUTSIDE THE PLANTATIONS

In those areas that were designated as suitable for the growing of bananas, there were a few stubborn peasants who resisted the modernism that the banana plantations represented. Unmindful of the initial blessings that the new crop seemed to bring to its recent converts, these few farmers clung to their usual food crops, not desiring anything more than to be left alone. Before long, however, they realized that the plantations' existence in their midst affected them in very concrete ways. In the General Santos area, for example, the entry of the banana plantation meant that water for irrigation had to be shared with an operation several times their size. The company had spent some money to improve the irrigation canals, and in their view, this gave them the right to regulate the flow of water according to the requirements of the plantation. Accordingly, the company installed a device to control the flow of the water. This action of the company enraged the farmers in the surrounding fields, and taking the matter into their own hands, they decided one day to simply destroy and pull out this wicked mechanism with the help of several carabaos. Today, the water flows freely into both banana and rice farms, and the twisted irrigation trap door stands as an eloquent testimony to a few peasants' determination to remain autonomous and to freely use the resources of their environment.

There is one area though in which the non-banana farmers have not been as successful in protecting themselves from the adverse impact of the banana plantations.

Banana farms employ a variety of powerful pesticides to protect the plants from insect infestation. Ordinary farmers do not have the resources to apply the same massive doses of pesticides. Consequently, they believe that they are losing the pesticide war and the consequence of this is that insects and other pests that cannot penetrate the chemical insulation of the banana farms take refuge instead in their own rice, corn, or vegetable farms. No scientific studies have been undertaken on the extent and nature of this problem, but the fact remains that the ordinary farmer commonsensically, and perhaps justly, ascribes the increased infestation of his farm to the presence of the neighboring banana plantation.

TRANSNATIONALS AND THE SMALL GROWERS

Relations between the TNCs and their local growers were blissful during the first five years of operation of the industry, but began to turn sour toward the second half of the 1970s when the acquisition price that the TNCs paid for Philippine bananas could not keep up with the rising cost of production.

For a large number of small growers, a point has been reached where harvest proceeds are no longer sufficient to even pay for the ever-rising charges for material inputs. With the addition of the new labor charges to their accounts, they have found themselves plunged deeper into debt.

In 1979, Castle & Cooke's small contract growers in the Davao area alone had a total debt to the company of ₱ 11,565,000 (US \$1,542,000). This debt is spread over 1,641 hectares, thus showing an average debt of ₱ 7,048 per hectare. The 1,641 hectares of "indebted land" represents 97 percent of the total area in Davao occupied by Castle & Cooke's small partners.

How are such huge debts incurred? First of all, the moment a farmer signs a grower contract, he immediately spends for the conversion or development of the land for banana cultivation. Among other things, this entails digging deep drainage canals across his field. In 1970 this operation cost about 3,000 pesos; in 1980 this had reportedly gone up to 12,000 pesos. The money is advanced by the company and is recorded as the grower's first debit entry. While waiting for his plants to bear fruit, he is sustained by a weekly cash flow also advanced by the company. These cash advances are all to be charged against future earnings.

The company unilaterally sets the purchase price of the growers' fruit, but its officials claim that when the market is good, they also, without being asked, simply raise the price. In 1980, for a 12-kg carton of bananas, Castle & Cooke paid its small partners ₱ 6.01 (US \$.80). From this amount, however, the small growers get only ₱ 1.50 (US \$.20). The remaining amount of ₱ 4.51 is automatically retained by the company to cover materials charges. Price increases, however, became infrequent as the Japanese market showed signs of saturation toward the end of the 1970s. Yet the price of material inputs, coupled with increasing labor charges, kept on rising. Irrigation charges too kept on growing. In addition, after ten years of continuous planting of the same crop, the lands began yielding inferior fruit and smaller quantities, both of which are definite signs of exhaustion and soil depletion. Consequently, soil amendments—the massive infusion of specific soil nutrients—had to be undertaken, and these too were passed on as costs to the already desperate growers.

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In certain periods, therefore, the production expenses are so big that they far exceed the earnings from harvested stems. Nonetheless, the weekly cash flow representing the grower's subsistence money must keep coming. This is entered in the grower's account under the category of "financial assistance," again a euphemism for a loan. To compound the grower's problem, the fantastically high rate of domestic inflation has so eroded the purchasing power of the peso that even the weekly cash flow can no longer adequately feed his family. At times the despair that results from this situation drives some growers to adopt certain coping mechanisms that may provide them momentary relief but which only seal their bondage to the company. One of the practices resorted to by some growers entails requesting materials from the company ostensibly to be used or applied in their farm. In actual fact, these same materials are resold to corporate growers in the surrounding plantations at half the price the company charges them. In this manner, they are able to generate cash with which to buy their daily needs. "They steal from themselves," the Costa Rican manager of Castle & Cooke told us, shaking his head when we inquired about this practice.

The small grower's debt is like a chain that binds him securely to his TNC "partner." Is there a way out for him? The contract that a small grower signs with Castle & Cooke has a normal maturity of ten years. Many of the growers first signed between 1969 and 1970. In 1979 and 1980 our researchers quietly watched whether they would renew this onerous partnership that had plunged them into debt. Without exception, Castle & Cooke obtained the renewals. The reasons the growers gave were varied. A number expressed satisfaction with the existing terms, though they pleaded for an increase in purchase price. But many said they renewed because, with their large debts, they had no other option. The contract stipulates that if a grower has outstanding obligations to the Company, he must settle these first before he can withdraw from the "partnership." If the grower decides to stop being a grower, the company acquires the right to appoint an administrator to run the farm until the debt is fully paid. In short, the grower must leave his farm. Another grower who had managed to pay back his negative "balance" renewed his contract because, he said, it would take a lot of trouble and money to restore the land to its previous state so that it may be planted to rice or corn again. Moreover, he added poignantly, "After ten years in a banana farm, I am not sure I still know how to cultivate a rice farm."

CRISIS IN THE INDUSTRY

With over 25,000 hectares under cultivation and fully operational, Philippine banana growers are facing a crisis of overproduction. To avert the collapse of the Japan market, Japanese importers and distributors, in the past, occasionally ordered chop-down operations (the killing of banana plants before they actually bear fruit) for which they paid indemnities. In this manner, they were able to regulate the flow of the fruit into the market in order to protect prices. Such a practice always struck the farmers and the people in the surrounding communities as strangely wasteful and irrational. But they had no reason to complain, because the Japanese always paid for this seemingly senseless destruction of their plants.

In mid-1979, however, the persistently bad market for bananas in Japan compelled the Japanese importer-distributor groups to completely withdraw from the contracts that they had with the TNC shipper. This event forced the TNCs to directly handle the distribution of their fruits in the Japanese market. Without the insulation previously provided by the Japanese distributor groups, the TNCs must now undertake the task of regulating production if they are to avert big losses. Some efforts are currently being taken toward this direction. Castle & Cooke's Annual Cropping Program (ACP) is an example. It essentially entails planting only one crop to program it to come out only during those four months of March, April, May, and June when Japanese prices for bananas are high. This means that banana plants of a certain age have to be chopped down regularly so that no fruit is harvested during the lean months. Moreover, the ACP obviously requires increasing integration of operations. Observers within the industry say this will fully seal the TNCs' control of the Philippine banana industry.

The ones hardest hit by the current slump in the industry are the so-called independents, the corporate growers who sell their fruit directly into the Japanese market. Compared to the TNCs, they have an extremely limited capacity to absorb losses while awaiting a better market. One of these corporations, in fact, has completely folded up—Desidal Farms. The owners have declared insolvency, and there are reports that they have been unable to pay some of their workers' remaining wages. Whether true or not, the sudden closure of the plantation has certainly left about a thousand workers and their dependents without any source of income. The Desidal owners have offered the over 1,000-hectare plantation for sale to the owners of the adjacent plantation, none other than the successful Antonio Floirendo of the United Brands-TADECO group. The latter has expressed interest in the land, but only after it has been cleared of people. In other words, no workers and no tenants. It has been reported that Floirendo wants to use the land for the production of palm oil, the new sensational cash crop that is now causing excitement among Mindanao's agribusinessmen.

The Desidal owners have not been able to make a sale because they did not anticipate the stubbornness and determination of about 85 tenant families, many of whom also used to work in the banana farms, who have been planting rice and corn in some portions of the plantation. They have refused to leave their farms and their homes despite the harassment to which they have been subjected. Five of their houses were recently burned or padlocked by hired demolition teams, but the farmers and their families remained on their farms. They have petitioned the government to award the lands they have tilled to them by virtue of the provisions of the Land Reform Law. The stalemate remains unresolved, but the cause of the 85 tenant families has received wide support from militant social action groups.

Today those Filipino families symbolize for all similarly situated peasants in the Third World the righteously indignant assertion of the right to food and the right to live against the insanity of a system which grows food that people cannot eat, pays them to chop down plants on which they have invested their labors, and imposes on them a mode of life which has stripped them of their autonomy and humanity.

UNIT VI

CONTENT PROCESS

(10:00) Causes of Hunger: According to the Rich Man, According to the Poor Man. The group will divide into two through the usual 1... 2... count-off. All #1's (Poor Man) will counter the arguments of the Rich Man in the Issue Paper. All #2's (Rich Man) will counter the arguments of the Poor Man. Each debater will have 7 minutes for his/her presentation to the group. Part of that time can be spent discrediting the argument of the last speaker and part presenting his/her own defense.

(11:00) The Political Economy of the Philippine Banana Plantation: The two points of the lecture are 1) the economic state of banana planters in the Philippines, and 2) the ownership of these banana plantations by US companies such as Castle & Cooke, Standard Fruit and Steamship, United Brand, etc.

In describing Paulo Freire's literacy process in Northeast Brazil, Cynthia Brown (Literacy in 30 Hours, Alternative Schools Network, Chicago) writes of the nonliterate's struggles that they had no awareness of whether or how they could change their lives in any way. They resisted being told they had problems. They believed that the conditions of their lives were due to God's will or to fate. In order to change this passive attitudes Freire

introduced the anthropological concept of culture, that is, the distinction between nature and culture. Freire believed that discussing this distinction would lead nonliterate to the discover that they are makers of culture as much as literate people are, that aspects of their lives are man-made and therefore subject to change. As such, they are taught that the clay pots they make are as much culture as the work of a great sculptor.

(11:30) Wrap-up. Were there enough ideas picked up from this workshop which can be passed on to elementary school children? Which of these activities are applicable to Attendees' elementary classes:

Large Group Discussion

Small Group Discussion

Introducing to a group

Exercise

Creation and Analysis of Flow Chart

Creation of Cling-board

Writing of Position (my-opinion) Papers

Role Playing

Issue (what's-going-on) Paper Writing

Abstract writing

Puzzle making

Field trips

Social Consciousness (not educational nor recreational)

Field Trips

Map making

Role of Devil's Advocate

Interviews

Oral Presentation

Group Lifesize Drawing

Debate

(1:00) Where a banana plantation is not close by, other cash crop plantations would be--cassava, pineapple, tobacco, sugar cane, etc. Any of these plantations would be a social consciousness trip. These plantations are usually fenced in with several layers of wire. The important thing when on field trips like this is not to be limited in what are shown. A tour is wasted if all one sees are the shiny equipment and modern machinery and offices. It is important to be allowed to have a bit of conversation with the rank and file employees, and to see them in their normal worksite. If the plantation is a live-in, request to see the living quarters.

UNIT VI

ACTIVITY RATIONALE

Debate: This activity should present other arguments for both side; arguments which were not provided by the reading. It may also get a bit sensitive since most of those present will be inclined to defend the side of the Poor Man. Such exercise in elementary classrooms is beneficial in that it encourages the individuals to intellectualize an argument rather than be dictated by his own biases and interests.

Debate is most applicable for elementary school pupils. Young students can be encouraged to get involved in disputes without losing their perspective. The training of questioning an opposing point of view is good exercise both for adults and students.

The issue of hunger was chosen for this last day because hunger is the ultimate result of every oppression and exploitation. What should be noted in this debate is that a rich man (who knows nothing about hunger and deprivation) gives arguments which are diametrically opposed to what the victims themselves are saying. An analogy of this is the Introduction to this dissertation where the personification of a colonial urges his victim to read up on how to improve himself.

Lecture: As mentioned early on, some topics in this workshop are introduced as lecture to give the Attendees a break from a physical or creative activity. During lecture, they sit, relaxed (hopefully) and just listen. "Lecture" is used for want of a better term; it is a misnomer since what the facilitator does is give narrations.

Banana Culture. From the little that nature provides them, banana planters develop a culture:

- o Banana trunk--used a liquid container; as water pipe to carry a trickle of water from the side of a hill to a more accessible area for collection.

- o Banana leaves--wrapper, liquid container, rain shed and roofing.

- o Rib strands--string, woven into cloth

- o dry leaves--for polishing and shining wooden items especially the floor.

- o Banana heart leaves--wrapper, food and liquid container, disposable dish.

Field Trip. Oppression is evident everywhere one turns in a multinational cash crop plantation. One issue will be mentioned here. The farmers are in constant need of cash to cover family, personal and other expenditures, repair of home, sickness, death. The company gives emergency loans to cover urgent necessities. Through the years the farmers avail themselves of these loans for basic needs that their compensations do not cover. As they incur

more loans, they become committed to renew their contracts.

What one should look for in tours like this is blatant oppression of low level employees, specifically women. Even assuming that the visitors are not allowed to see sites requested for, the mere fact that it was necessary to conceal, for instance, the living quarters of the women give them the realization that the conditions are something to be ashamed of and cannot be shown to outsiders. Ask to see the employees' restrooms. Here, one must know what to look for. If the room is in a fairly sanitary condition, then it is fine. But if the room is dirty, one must not give attention to the filth. What one must look for are the provisions for cleaning the room. Are there soap, brushes, scrub-rugs, running water? If none of the means to clean the room up are provided by the company, then employees cannot be held responsible for the unsanitary condition of the room.

The past six days' learnings can be tied together with a brief review of the issues taken. A thorough analysis of each of the Hand-outs lead to a common issue: The land must not be taken away from the farmer; conversely, the farmer must not be driven away from good land. Having accomplished this, the farmer must be allowed to feed the population. Food raised by foreign farmers must not compete with local farmers. Local farmers must also feed local meat animals. This means retaining indigenous species of meat animals.

Western high breed pigs, Western high breed chickens and cattles require Western feed which is imported.

Governments, not Draught: A farmer has been working his land for 20 years. With the help of his buffalo and children, they eat enough and make a living out of his efforts. A 3-day typhoon hits his area and floods his farms. Sad, but not cause for starvation. His farming grandfather and father were subjected to these natural shocks, but they recovered. This natural calamity will not cause starvation, as the world now envisions starvation. Conclusion, this farmer will suffer some loss but will recover because typhoons such as this does not hit everyday of the year.

Several years later, inability to compete with imported grain forces this farmer to sell his farm. He is offered a fair price by a multinational plantation. He knows that he's one of the last to hold out, and the pressure for him to sell will increase. He sells, and takes his money and family to the city. Conclusion, this farmer will most likely become impoverished due to inability to find a job in the city. His starvation has begun.

Another farmer is forced to leave his locality because of political upheaval. He moves to the other side of the mountain where there are more rocks and the terrain is inhospitable to farming. In addition, he is now farther away from the towns. Marketing his crops become problematical. The starvation of this farmer has begun.

The last activity of the afternoon are the goodbyes.

END OF WORKSHOP

CONCLUSION

"Ang puhuna'y hindi dapat makinabang nang higit sa paggawa, ni nang hati, ni nang labis pa sa halaga ng mga kasangkapan at gamit sa pagpapagawa. Na ang dapat lamang pakinabangan ng maypuhunan ay ang halaga ng kanyang paggawa rin, at hindi ang tubo sa mga himagal ng mga nagpapaupa."*

(Lope K. Santos, 1906)

*"Capital must not profit more than labor, not half the profit of labor, not even the excess beyond the value of equipment and manufacture. Capital's earning must only be commensurate to the effort that the capitalists themselves expended. Capital must not claim the yield from the exploitation of labor."

The oppressed are getting desperate. Their voices are getting louder and their vigor increasing. They are not even frightened by the sophisticated weaponry of the oppressors and neocolonizers, and the blatant realities of the Karen Silkwoods, Steve Hormanns, Salvador Allendes and Benigno Aquinos.

On page 27, I narrated how my greatgrandmother together with other women handled an oppressor a hundred years ago. Had she done the same to a neocolonizer today, would she have lived long enough to tell the tale? Jan Myrdal in his article in the Saturday Review of August 13,

1965 said, "In the concrete world in which we live we all know which is the main conflict. The few are rich, the many are poor... the majority is downtrodden, trampled upon, exploited. And this majority is becoming conscious. It is questioning the whole structure of the world society." In the Philippines, the only salvation of the poorest, agriculture, is in the hands of the oppressors and neocolonials. To this day, even marginal lands are being grabbed away from the poor by the same interests. As a result, too little arable land is left with too many farmers. And that which the farmers can plant for a profit, will have to compete with the billion-dollar West agricultural products. The rest of the good parcels are fenced-in, growing food for foreigners and cattle for the wealthy. There are too many fenced-in land with fat cattle and thin people.

Limited land is increasingly becoming a fact of life in the Oppressed Countries, a concept North Americans are unable to fathom. North America's history revolves around unlimited land. North American history can be written without once mentioning the words "land reform." The land was there in unlimited supply once it could be taken from the Indians (Dunmar, 1975). Later, the missing element, labor, was provided by imported slaves. Still later, billions of dollars in repatriated profit from colonies and neocolonies provided a progressively increasing flow of

capital. This was the path followed by North America. Asia, Africa and South America never had these input.

From motives of profit and prestige, loans and aid have been made on condition that the Oppressed Countries buy from the Powerful Countries highly efficient machines and factories which can do nothing but intensify the prevailing bankruptcy and chaos, the hardest blow of which is reserved for the poverty-stricken, \$1.30-a-day laborers.

Poverty is what makes the Filipinos sell their ballots for a bag of groceries. At the polling places, corrupt candidates hand out bags of groceries and the men or women with no food for their children collect their bag of groceries. One exchanges what one has for what one needs. When Massachusetts Senator Edward Kennedy joined the bill to export US non-approved chemicals undoubtedly to Oppressed Countries, a bill labeled "obnoxious" by liberal consumer groups, he needed something, and he gave what he had for what he needed. This is no different than the poor Filipino exchanging his vote for a bag of groceries. Exchanging something one has for something one needs. This is the existing pattern of economic and political disorder.

Some resort to violence and terrorism to express their desperation over this disorder. They feel a seething hatred against this exploitation of the disenfranchised, two-thirds of the global population. When hijacking terrorists pick only on colonials to torment or murder,

these passengers are the martyrs for the oil companies' excessive profit. When Western embassies are attacked, it's a way of complaining against the \$1.30-a-day wage imposed by the West. When a Peace Corps volunteer is shot in the head while fishing, he is a martyr of the ongoing attempt to undermine a sovereign nation and to instill fear among its leaders. When a hotel full of Western retired teachers is set on fire, these tourists are martyrs of the United Fruit's immoral activities.

The oppressed will find a way to retaliate in the only way they know. The sacrificial altar will overflow with martyrs so that the Core may have filet mignon everyday, private jets, heated toilet seats, and unlimited power.

Is it worth it? Would we in the West suffer that much were we to doubled their \$1.30 a day? Would we be hurting if we didn't underprice the two-meal-a-day farmers? Is it moral to make them dependent on foods they cannot produce? Do we need to take all their profits away from them?

Terrorism which works both ways must be eliminated. Two wrongs--Core terrorism and Periphery terrorism-- will lead to the martyrdom for all.

There is another way, and this way is education. Paulo Freire said, "It is only the oppressed, who by freeing themselves, can free the oppressor." It is unlikely that the oppressor would wake up one day and say, "I am taking too much away from them." It is therefore up to the

oppressed to complain that "They are taking too much away from me." There is gross injustice in colonizer/ colonized (Core/ Periphery) relationships. To depolarize this no-win situation of terrorism versus terrorism, Jose Rizal a hundred years ago suggested education. Fifty years ago, Lope K. Santos and others like him suggested education. What is this education that many including these two Filipino nonviolent, ideologue-thinkers and crusader-writers mean? The education they meant is the ability to understand a problem and to implement the grassroot solution.

If imported flour is depleting the national treasury and depriving native staple farmers, each four-year old can help by eating, every other day, a sweet potato for breakfast instead of an imported pandesal. This way, the two billion dollar flour merchant will survive and the local sweet potato farmer will also survive.

APPENDIX

APPENDIX A

NUTRIENT COMPARISONS BETWEEN INTERCHANGEABLE FOODS

People eat to satisfy their hunger, not to fulfill their nutrient requirements, a UMass nutrition professor lectured. Oppressed Country people, the main concern of this paper, become ill and in time die due to unfilled nutrient needs. The average person becomes very confused by conflicting nutrition principles and theories. They are further confused by the flow of written and spoken words on the subject by experts, self-proclaimed or otherwise, who spend as much time discrediting each other. As a result, one often hears the words, "Don't talk to me about nutrition."

Method and Analysis

The Nutrient Data Bank is an excellent resource, an efficient teaching instrument that presents to the layperson a simple way of determining which among a selection of interchangeable foods is "better for my needs."

Included in this Appendix as a small sampling are print-outs of interchangeable foods. Page 322 lists the nutrient contents of human, whole (cow), soy, filled and low-fat milks. Calcium is a nutrient of particular concern in Oppressed Countries, and the low calcium content of soymilk compared to whole cow's milk gives the dairy promoters a good

argument against the inexpensive soymilk. However, protein which is the most scarce of nutrients among this population is present in soymilk at high levels, and can be increased depending on the concentration in the preparation.

How then to supplement the calcium of soymilk? Page 323 shows the nutrient contents of various sweeteners. Very evident in this table is the high calcium content of black molasses. Molasses is not considered food for humans in the Philippines and other Oppressed Countries. One seldom read about the value of molasses. Although cheap and abundant as a by-product of the lucrative rum industry, molasses is mostly fed to animals, horses specifically. There appears to be a need for a Molasses Lobby as there is a Dairy Lobby. A combination of soymilk and molasses in a day's diet appear to provide added quantities of the needed nutrients, such as the elusive calcium. How to convince the mothers to feed their children horse food such as molasses may be where education comes in. This kind of education will have to be forceful enough to couterbalance the full-page ads of imported baby formula. Just as free Russian caviar can change a dislike to a liking, and just as a liking for the light, white spongy bread was developed, so can a liking for soymilk and molasses by the undernourished (people who don't have enough to eat.)

Page 324 gives an at-a-glance nutrient comparison

between white bread and other starches. Whole wheat bread is practically unknown in the Philippines. And on the rare occasion that the average Filipino is exposed to whole wheat bread or other dark, rougher wheat bread, s/he would rather politely turn it down. Filipinos who come and visit in the US bemoan the fact that their Filipino-American hosts eat what one called "this awful dark bread which gags." Almost all visiting Filipinos in America take an immediate trip to the supermarket to get for themselves light, Wonder-style white bread. "Bread" in the Philippines means the white, light Wonder bread.

Of all the legumes, soybeans has the highest protein content. Whenever a processed food food is labeled "high protein" it is safe to assume that the protein is of soybean source. This includes most baby formula.

Pages 325 and 326 gives the nutrient contents of oils and protein sources. The vitamins B6 and B12 in soy tempeh is interesting to note since many nutrition books indicate that plant foods lack the B-vitamins.

These comparisons simplifies non-nutritionists' understanding of food nutrients.

ENTER DATA...

ENTER DATA...

? 801107

? 801078

? 021500

801059 1.0

? 801080 1.

HUMAN MILK

WHOLE MILK

SOYMILK FILLED MILK

-LOWFAT MILK-

CALORIES	70.000	64.000	33.000	CALORIES	63.000	51.000
MONO FAT	1.660	1.060	0.000	MONO FAT	1.780	.560
SUCROSE	0.000	0.000	0.000	SUCROSE	0.000	0.000
VIT.A- RE	0.000	0.000	0.000	VIT.A- RE	0.000	0.000
B6	.011	.042	0.000	B6	.040	.040
VIT.E	0.000	0.000	0.000	VIT.E	0.000	0.000
BIOTIN	0.000	0.000	0.000	BIOTIN	0.000	0.000
CALCIUM	32.000	119.000	21.000	CALCIUM	128.000	128.000
ALUMINUM	0.000	0.000	0.000	ALUMINUM	0.000	0.000
COPPER	0.000	0.000	0.000	COPPER	0.000	0.000
SELENIUM	0.000	0.000	0.000	SELENIUM	0.000	0.000
PROTEIN	1.030	3.280	3.400	PROTEIN	3.330	3.480
POLY-U FAT	.500	.140	0.000	POLY-U FAT	.750	.070
OTHER SUGA	0.000	4.900	0.000	OTHER SUGA	0.000	4.900
THIAMIN	.014	.038	.080	THIAMIN	.030	.040
B12	.045	.356	0.000	B12	.342	.382
VIT.K	0.000	0.000	0.000	VIT.K	0.000	0.000
SODIUM	17.000	49.000	0.000	SODIUM	57.060	52.000
PHOSPHORUS	14.000	93.000	48.000	PHOSPHORUS	97.000	100.000
BARIIUM	0.000	0.000	0.000	BARIIUM	0.000	0.000
FLUORIDE	0.000	0.000	0.000	FLUORIDE	0.000	0.000
STRONTIUM	0.000	0.000	0.000	STRONTIUM	0.000	0.000
TOTAL FAT	4.380	3.660	1.500	TOTAL FAT	3.460	.192
CHOLESTERO	14.000	14.000	0.000	CHOLESTERO	2.000	48.000
CRUDE FIBE	0.000	0.000	0.000	CRUDE FIBE	0.000	0.000
RIBOFLAVIN	.036	.161	.030	RIBOFLAVIN	.123	.123
VIT.C	5.000	1.470	0.000	VIT.C	.900	1.900
PANTOTHENI	.223	.313	0.000	PANTOTHENI	.301	.330
POTASSIUM	51.000	151.000	196.000	POTASSIUM	139.000	162.000
IODINE	0.000	0.000	0.000	IODINE, MCB	0.000	0.000
BORON	0.000	0.000	0.000	BORON	0.000	0.000
MANGANESE	0.000	0.000	0.000	MANGANESE	0.000	0.000
ZINC	.170	.380	0.000	ZINC	.360	.400
SAT'D FAT	2.010	2.280	0.000	SAT'D FAT	.770	1.200
CARBOHYDR	6.890	4.650	2.200	CARBOHYDR	4.740	4.970
VIT.A- IU	241.000	138.000	40.000	VIT.A- IU	7.000	204.000
NIACIN	.177	.084	.200	NIACIN	.087	.090
VIT.D- IU	0.000	0.000	0.000	VIT.D- IU	0.000	41.000
FOLIC ACID	.005	.005	.016	FOLIC ACID	.005	.005
IRON	.030	.050	.800	IRON	.050	.050
MAGNESIUM	3.000	13.000	0.000	MAGNESIUM	13.000	14.000
CHROMIUM	0.000	0.000	0.000	CHROMIUM	0.000	0.000
MOLYBDENUM	0.000	0.000	0.000	MOLYBDENUM	0.000	0.000
ARGININE	43.013	119.130	276.352	ARGININE	120.946	126.394
HISTIDINE	23.072	89.216	110.432	HISTIDINE	90.576	94.656
ISOLEUCINE	56.032	197.850	159.936	ISOLEUCINE	200.866	209.914
LEUCINE	93.442	321.702	278.528	LEUCINE	326.406	341.318
LYSINE	68.062	259.776	245.888	LYSINE	263.736	279.010
TOTAL S AA	40.046	112.832	114.240	TOTAL S AA	114.552	119.712
PHE + TYR	99.045	315.930	355.232	PHE + TYR	320.746	335.494
THREONINE	45.979	147.994	161.024	THREONINE	150.250	157.018
TRYPTOPHAN	16.974	46.182	46.240	TRYPTOPHAN	46.886	48.798
VALINE	62.954	219.891	169.728	VALINE	223.243	233.274

1.00 X 100GRAMS

? 022290 A 1.		? 022300 A 1.		? 013410 B 1.		? 011340 C 1.	
BROWN SUGAR		GRANULATED SUGAR		BLACKSTRAP MOLASSES		HONEY	
CALORIES	540.850	770.000	698.640	1030.560			
MONO FAT	0.000	0.000	0.000	0.000			
SUCROSE	0.000	0.000	89.216	6.441			
VIT. A- RE	0.000	0.000	0.000	0.000			
R6	0.000	0.000	0.000	0.068			
VIT. E	0.000	0.000	0.000	0.000			
BIOTIN	0.000	0.000	0.000	0.000			
CALCIUM	123.250	0.000	2243.520	16.950			
ALUMINUM	0.000	0.000	0.000	0.000			
COPPER	0.000	0.000	0.000	0.000			
SELENIUM	0.000	0.000	0.000	0.000			
PROTEIN	0.000	0.000	0.000	0.000			
POLY-U FAT	0.000	0.000	0.000	1.017			
OTHER SUGA	0.000	0.000	0.000	0.000			
THIAMIN	.015	0.000	27.880	253.233			
B12	0.000	0.000	.361	.017			
VIT. K	0.000	0.000	0.000	0.000			
SODIUM	43.500	2.000	0.000	0.000			
PHOSPHORUS	27.550	0.000	314.880	16.950			
BARIIUM	0.000	0.000	275.520	20.340			
FLUORINE	0.000	0.000	0.000	0.000			
STRONTIUM	0.000	0.000	0.000	0.000			
TOTAL FAT	0.000	0.000	0.000	0.000			
CHOLESTERO	0.000	0.000	0.000	0.000			
CRUDE FIBE	0.000	0.000	0.000	0.000			
RIBOFLAVIN	.041	0.000	0.000	0.000			
VIT. C	0.000	0.000	.523	.136			
PANTOTHENI	0.000	0.000	0.000	3.390			
POTASSIUM	498.800	6.000	0.000	0.000			
IODINE	0.000	0.000	9600.540	172.890			
KURON	0.000	0.000	0.000	0.000			
MANGANESE	0.000	0.000	0.000	0.000			
ZINC	.073	.040	0.000	0.000			
SAT'D FAT	0.000	0.000	21.320	.271			
CARBOHYDR	139.780	199.000	180.400	278.997			
VIT. A- IU	0.000	0.000	0.000	0.000			
NIACIN	.290	0.000	6.560	1.017			
VIT. D- IU	0.000	0.000	0.000	0.000			
FOLIC ACID	0.000	0.000	0.000	0.000			
IRON	4.230	.200	52.808	1.695			
MAGNESIUM	0.000	0.000	0.000	0.000			
CHROMIUM	0.000	0.000	0.000	0.000			
MOLYBDENUM	0.000	0.000	0.000	0.000			

7 018702 A 1.		7 008451 A 2.		7 004460 C 1.		7 022491 A 113.9 GRAMS	
COOKED BROWN RICE		BOILED KERNEL CORN		FRENCH BREAD		BAKED SWEETPOTATO	
CALORIES	232.050	CALORIES	273.900	CALORIES	42.000	CALORIES	160.571
MONO FAT	0.000	MONO FAT	0.000	MONO FAT	.201	MONO FAT	0.000
SUCROSE	0.000	SUCROSE	0.000	SUCROSE	.312	SUCROSE	8.199
VIT.A- RE	0.000	VIT.A- RE	0.000	VIT.A- RE	0.000	VIT.A- RE	0.000
B6	0.000	B6	0.000	B6	.008	B6	0.000
VIT.E	0.000	VIT.E	0.000	VIT.E	0.000	VIT.E	0.000
BIOTIN	0.000	BIOTIN	0.000	BIOTIN	0.000	BIOTIN	0.000
CALCIUM	23.400	CALCIUM	9.900	CALCIUM	16.500	CALCIUM	45.552
ALUMINIUM	0.000	ALUMINIUM	0.000	ALUMINIUM	0.000	ALUMINIUM	0.000
COFFER	.195	COFFER	0.000	COFFER	.218	COFFER	0.000
SELENIUM	0.000	SELENIUM	0.000	SELENIUM	0.000	SELENIUM	0.000
PROTEIN	4.875	PROTEIN	10.560	PROTEIN	1.425	PROTEIN	2.391
FOLY-U FAT	0.000	FOLY-U FAT	0.000	FOLY-U FAT	.123	FOLY-U FAT	0.000
OTHER SUGA	0.000	OTHER SUGA	0.000	OTHER SUGA	.342	OTHER SUGA	16.513
THIAMIN	.176	THIAMIN	.363	THIAMIN	.069	THIAMIN	.102
B12	0.000	B12	0.000	B12	0.000	B12	0.000
VIT.K	0.000	VIT.K	0.000	VIT.K	0.000	VIT.K	0.000
SODIUM	0.000	SODIUM	0.000	SODIUM	82.650	SODIUM	13.666
PHOSPHORUS	142.350	PHOSPHORUS	293.700	PHOSPHORUS	12.150	PHOSPHORUS	66.050
BARIUM	0.000	BARIUM	0.000	BARIUM	0.000	BARIUM	0.000
FLUORIDE	0.000	FLUORIDE	0.000	FLUORIDE	0.000	FLUORIDE	0.000
STRONTIUM	0.000	STRONTIUM	0.000	STRONTIUM	0.000	STRONTIUM	0.000
TOTAL FAT	1.170	TOTAL FAT	3.300	TOTAL FAT	.582	TOTAL FAT	.569
CHOLESTERO	0.000	CHOLESTERO	0.000	CHOLESTERO	.450	CHOLESTERO	0.000
CRUDE FIRE	.585	CRUDE FIRE	2.310	CRUDE FIRE	.029	CRUDE FIRE	1.025
RIROFLAVIN	.039	RIROFLAVIN	.330	RIROFLAVIN	.053	RIROFLAVIN	.080
VIT.C	0.000	VIT.C	23.100	VIT.C	0.000	VIT.C	25.054
PANTOTHENI	0.000	PANTOTHENI	0.000	PANTOTHENI	.054	PANTOTHENI	0.000
POTASSIUM	136.500	POTASSIUM	544.500	POTASSIUM	12.900	POTASSIUM	341.640
IODINE,MCG	0.000	IODINE,MCG	0.000	IODINE,MCG	0.000	IODINE,MCG	0.000
BORON	0.000	BORON	0.000	BORON	0.000	BORON	0.000
MANGANESE	0.000	MANGANESE	0.000	MANGANESE	0.000	MANGANESE	0.000
ZINC	.585	ZINC	1.155	ZINC	.095	ZINC	.797
SAT'D FAT	0.000	SAT'D FAT	0.000	SAT'D FAT	.099	SAT'D FAT	0.000
CARBOHYDR	49.610	CARBOHYDR	62.040	CARBOHYDR	7.590	CARBOHYDR	37.011
VIT.A- IU	0.000	VIT.A- IU	1320.000	VIT.A- IU	0.000	VIT.A- IU	9224.280
NIACIN	.820	NIACIN	4.290	NIACIN	.602	NIACIN	.797
VIT.D- IU	0.000	VIT.D- IU	0.000	VIT.D- IU	0.000	VIT.D- IU	0.000
FOLIC ACID	.002	FOLIC ACID	.059	FOLIC ACID	.006	FOLIC ACID	.046
IRON	.410	IRON	1.980	IRON	.462	IRON	1.025
MAGNESIUM	0.000	MAGNESIUM	141.900	MAGNESIUM	3.000	MAGNESIUM	38.719
CHROMIUM	0.000	CHROMIUM	0.000	CHROMIUM	0.000	CHROMIUM	0.000
MOLYBDENUM	0.000	MOLYBDENUM	0.000	MOLYBDENUM	0.000	MOLYBDENUM	0.000

ENTER DATA...

	804044 B ? 804538 B	804042 B ? 804047 B ? 801001	804047 B ? 801001	804047 B ? 801001
?	012410 B 1			
	LARD	PEANUT OIL	COCONUT OIL	SUNFLOWER OIL
	1849.100	1909.440	884.000	717.000
	SOYBEAN OIL			
	1927.120			
	CORN OIL			
	1927.120			
CALORIES	1849.100	1909.440	884.000	717.000
MONO FAT	94.300	50.794	5.800	23.430
SUCROSE	0.000	0.000	0.000	0.000
VIT-A- RE	0.000	0.000	0.000	0.000
B6	.041	0.000	0.000	0.000
VIT-E	0.000	35.752	0.000	.003
BIOTIN	0.000	0.000	.600	2.400
CALCIUM	0.000	.08	0.000	0.000
ALUMINUM	0.000	0.000	0.000	24.000
COPPER	0.000	0.000	0.000	0.000
SELENIUM	0.000	0.000	0.000	0.000
PROTEIN	0.000	0.000	0.000	0.000
POLY-U FAT	20.500	126.222	0.000	.850
OTHER SUGA	0.000	0.000	1.800	3.010
THIAMIN	0.000	0.000	0.000	0.000
B12	0.000	0.000	0.000	.005
VIT-K	0.000	0.000	0.000	0.000
SODIUM	0.000	0.000	0.000	0.000
PHOSPHORUS	0.000	0.000	0.000	826.000
BARIU	0.000	0.000	.090	23.000
FLUORIDE	0.000	0.000	0.000	0.000
STRONTIUM	0.000	0.000	0.000	0.000
TOTAL FAT	205.000	218.000	100.000	81.110
CHOLESTERO	194.750	0.000	100.000	219.000
CRUDE FIBE	0.000	0.000	0.000	0.000
RIBOFLAVIN	0.000	0.000	0.000	.034
VIT-C	0.000	0.000	0.000	0.000
PANTOTHENI	0.000	0.000	0.000	0.000
POTASSIUM	0.000	.545	0.000	26.000
IODINE	0.000	0.000	0.000	0.000
IRON	0.000	0.000	0.000	0.000
MANGANESE	0.000	0.000	0.000	0.000
ZINC	.410	0.000	0.000	0.000
SAT'D FAT	17.900	31.392	36.504	50.490
CARBOHYDR	0.000	0.000	0.000	.060
VIT-A- IU	0.000	0.000	0.000	3058.000
NIACIN	0.000	0.000	0.000	.042
VIT-D- IU	0.000	0.000	0.000	92.000
FOLIC ACID	0.000	0.000	0.000	.003
IRON	0.000	.034	.065	.160
MAGNESIUM	0.000	.065	0.000	2.000
CHROMIUM	0.000	0.000	0.000	0.000
MOLYBDENUM	0.000	0.000	0.000	0.000

? TEMPEH A 1.

? 002210 D 1.

? TEMPEH A 1.

TEMPEH FRESH	BEUF CHUCK COOKED	TOFU FIRM
CALORIES	60.669	36.288
MONO FAT	1.185	0.000
SUCROSE	0.000	0.000
VIT.A- RE	0.000	0.000
B6	.235	0.000
VIT.E	0.000	0.000
BIOTIN	0.000	0.000
CALCIUM	40.257	15.139
ALUMINUM	0.000	0.000
COFFER	0.000	0.000
SELENIUM	0.000	0.000
PROTEIN	5.528	4.054
POLY-U FAT	0.000	0.000
OTHER SUGA	0.000	0.000
THIAMIN	.079	.026
B12	1.106	0.000
VIT.K	0.000	0.000
SODIUM	0.000	1.899
PHOSPHORUS	68.040	53.582
BARIIUM	0.000	0.000
FLUORIDE	0.000	0.000
STRONTIUM	0.000	0.000
TOTAL FAT	2.126	1.985
CHOLESTERO	0.000	0.000
CRUDE FIBE	.397	.028
RIBOFLAVIN	.184	.009
VIT.C	0.000	.113
PANTOTHENI	.147	0.000
POTASSIUM	0.000	0.000
IODINE,MCG	0.000	0.000
BORON	0.000	0.000
MANGANESE	0.000	0.000
ZINC	0.000	0.000
SAT'D FAT	0.000	0.000
CARBOHYDR	2.410	.624
VIT.A- IU	11.907	0.000
NIACIN	.714	.028
VIT.D- IU	0.000	0.000
FOLIC ACID	.028	0.000
IRON	.142	.907
MAGNESIUM	0.000	51.597
CHROMIUM	0.000	0.000
MOLYBDENUM	0.000	0.000

APPENDIX B

PHILIPPINE ECONOMIC STATISTICS

The Philippines is located along the southeastern rim of Asia, forming a land chain between the Pacific Ocean on the east and the South China Sea on the west. The islands, comprising approximately 7000 with about 400 inhabited, have for neighbors Japan to the north, the Indochinese continent to the west and Indonesia to the south. The total land area is 301,000 square kilometers with 6835 km of coastline stretching 435 km north to south (National MPC, 1974).

The country ranks 33rd in the world in nationwide density of population and 29th in the world in density of population in agricultural areas (369 per sq km). The average density per square kilometer is 165. The population is 52.1 million (1983), 63.2% rural, with an annual growth rate of 2.7% (World Bank 1982), down from 3.2% in 1980. The age structure percentages are 16.8% below 4, 28% from 5 to 14, 52.5% from 15 to 64, 3% over 65 years. The capital is Manila, and 15 other smaller towns in its periphery merge to form Metropolitan Manila, with a population of more than 5 million. Its people are largely Catholic (85%). A politically significant Muslim minority is concentrated on the south coast which is adjacent to the

Muslim Indonesian islands (Philippine DR, 1981).

The Encyclopedia of Third World (1982) considers the Philippines one of 39 lower middle income countries of the world with a free market economy dominated by the private sector. Another indicator of the people's economic condition is the GNP per capita, which is \$510, which in world rank puts the Philippines at 81. The total GNP is \$23.25 billion, with an annual growth rate of 6.5%.

On the Physical Quality of Life index, the Encyclopedia of the Third World (1982) gave the country a rating of 72 (1982). The US is rated 95, telling the reader that life in the Philippines on the average is 75% as good as life in the US. Conflicting with this claim are the following figures: 16% of the population live in absolute poverty, based on average wage rate of one major earner. As to income distribution, the bottom 20% received 5.5% of the national income; the top 5% received 28.8%.

There is little reliable information to this research on agrarian reform statistics. Succession of leaders pass acts and decrees either alleviating tenant misery or rationalizing huge land ownership patterns. A presidential decree of 1972, undertook to transfer ownership of land averaging 3.27 hectares (8 acres) to a reported half of the country's 900,000 landless peasants and tenants (National EDA, 1981).

Calorie consumption per capita is 2083, 36% of the US

Recommended Dietary Allowance (daily nutrient need). This is standard for developing countries. In areas within the Philippines where poverty is greater, there is malnutrition, which means the people may have enough calories but are not getting the right nutrients. Another way of saying this is that people are eating enough of foods low in needed nutrients. Life expectancy is 61.9 years, high for an underdeveloped country. Infant mortality is 62.1 per thousand births. Most of the above figures indicate that a large proportion of the population has a low income.

Labor force distribution (1982) from age 15 is as follows: agriculture, forestry and fishing, 52.7%; mining and quarrying, .4%; manufacturing, 10.9%; electricity, gas and water, 0.3%; construction, 3.2%; wholesale and retail trade, 12.1%; transport, storage and communication, 3.6%; services, 16.7%; other activities not adequately described, .3%. No figures on minimum or average wage are available (Europa Yearbook, 1984).

The Philippines' share of the United Nations budget is 0.18%. It is a member of 15 UN organizations and 18 other international organizations (National MPC, 1974).

Foreign investment in 1981 amounted to \$399 million creating a total investment from previous years of \$1.9 billion, distributed as follows: manufacturing, 49.2%; mining, 19.6%; bank and other financial institutions, 17%; commerce, 5.9%; services, 4.1%; public utility, 1.7%;

construction, 1.2%; agriculture, fishery, and forestry, 1.3%, others, .03%. As of the date of Philippine Development, 1981, \$1.6 billion have already been inwardly remitted, with the US accounting for 53.9 percent, followed by Japan with 14.7 percent, Hongkong, 6%; United Kingdom, 4.2%; and Canada, 2.8% (Center for SA, 1982).

Earnings from exports in 1981 was \$5.72 billion a decrease of 1.1% over the year before. These are the exports by major commodity groups in 1980-81, in percentages: coconut products, 23%; sugar products, 21%; forest products, 15%; mineral products (copper, gold and chromite ore), 29%; pineapple, 2%; and others, 4%. coconut, sugar and forest products are vulnerable to fluctuating prices on the world market and to adverse weather and shortages at home. Exports made up 24.6% of the \$23.25 billion GNP of the country.

Imports from the US amounted to 22.6% of the total, followed by Japan, 18.5%; Middle East countries, 20.9%; Asian countries. The volume of imports in 1980 amounted to \$7.95 billion broken down by commodity groups as follows: capital goods, 24%; raw material, 36%; mineral fuels and lubricants, 31%; consumer goods, 8%. The country's external transactions registered a deficit of \$560 million in 1981, higher than the 1980 deficit of \$381 million. This is attributed to imports, and decline in export prices. In an

attempt to ease the deficit, the currency was devalued by 7.3% against the US dollar in June 1983, and by a further 21.4% in October (USDA, 1983).

Total enrollment for the school year 1981-82 reached 12.8 million, 2.5% higher than SY 1980-81. The enrollment breakdown for this period is as follows: 8.7 million in elementary (first to seventh grade), 2.8 million in secondary, and 1.3 million in college. The percentage increases from the previous year are 2.9%, 1.0% and 3.8% respectively (National EDA, 1981). Literacy rate is 89.5% (1981) for ten years and over, with a .7% increase from the previous year.

Despite sustained internal migration toward the cities, approximately two-thirds of all Filipinos live in rural areas. The Philippines, although a pluralistic society with over 50 ethnic groups and as many significant dialects (the national language, Pilipino, used in the national bilingual elementary education program, is spoken by three-quarters of the population) has a very strong sense of national unity, stemming from a common cultural and racial history. There is much internal migration resulting in homogeneity.

The references give no figure on income average. This writer knows from her annual visits to the rural Philippines that an unskilled worker earns 30 pesos (US\$1.50) for a 10-12 hour day and it costs twice this amount to purchase

barest essentials. As with most Oppressed Countries, other members, including children, supplement the main income.

The 1972 presidential decree on land distribution has made little headway in agricultural production. The new landowners are still planting nonstaples instead of the staple crops. In addition to the need to cultivate staple crops, a storage, collection, and marketing program has to be planned on a nationwide basis, such as being implemented by the US Department of Agriculture. A national agency has to oversee the interest of the small farmers in the Philippines, just as a national agency oversees the interest of the small farmers in the US. Until these 3-acre farmers are assisted in producing, storing, and marketing of staple crops, poverty in the rural areas will prevail (UNICEF, 1984).

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