

© The United Nations University, 1980
Printed in Japan

ISBN 92-808-0163-5
ISSN 0379-5764

HSDRGPID-49/UNUP-163

**THE HUNGER PROBLEMATIQUE AND
A CRITIQUE OF RESEARCH**

Susan George

Convenor and Rapporteur of the Food
Study Group
UN University GPID Project
42, rue du Cherche Midi
F - 75006, Paris, France



CONTENTS

Preface	1
I. The Hunger Problématique	4
II. Some Conceptual Issues and Obstacles	13
III. Some Elements of a Progressive Approach to Research	21
IV. Creativity and Development: Revitalizing the UN University (Pierre Spitz)	34
Annex 1: The Food Study Group of the UN University GPID Project	42
Annex 2: GPID/UNU Food Study Group Participants	69
Notes	71

This paper is an outcome of the GPID Food Study Group II Meeting, Geneva, 8-10 July 1979; with Susan George as rapporteur for the group.

Geneva, March 1980

Johan Galtung

It is being circulated in a pre-publication form to elicit comments from readers and generate dialogue on the subject at this stage of the research.

PREFACE

The Food Study Group (FSG) of the Goals, Processes, and Indicators of Development (GPID) project of the United Nations University was first convened by the leader of the GPID project, Johan Galtung, in February 1979. This initial meeting produced an Issues Paper as an input to the dialogue between the UN University's Human and Social Development Programme and its World Hunger Programme held at Massachusetts Institute of Technology in March. Subsequently, another FSG meeting was held in Geneva in July with the objective of deepening the perspective on research begun in the Issues Paper. The present report attempts a synthesis of the Group's work on these three occasions.

The FSG is conceived as a loose network of researchers (most of whom also consider themselves social activists) from industrialized and developing countries (approximately half the members from each). One of the Group's aims is to broaden the network; another is to keep meetings to manageable and fruitful size: for these reasons (and because of financial constraints) not all members have attended each meeting, and only four have been present at all three (Susan George, rapporteur, Rahmat Qureshi, Pierre Spitz, Ponna Wignaraja; see the annexes for a list of participants).

The Group sees its audience as threefold. First, its own members — not out of self-centredness but because it recognizes that one condition for doing good research is the knowledge that one's work is needed and appreciated. Third World colleagues stress that academic or State institutions often ignore, discount, or suppress their better — and more controversial — findings. When this occurs, they rarely have access to alternative forums, publications, etc., like those

generally open to intellectuals from industrialized countries. The FSG can provide one such forum, however limited. Secondly, since the Group owes its existence to the UN University, it hopes that its reflections may contribute in some way to the programmes of that institution. It decided, however, that it should not concern itself with the possible future institutionalization of its work nor try to adapt to existing frameworks, but rather proceed from a "clean slate" attitude while adhering to the objectives stated in the Charter of the UN University. In the Group's view, the most important ultimate audience for its work should be the now-powerless people who are the prime victims of poverty and hunger. A basic objective is to direct "development" research — its own and that of others — into channels which will be the most relevant to the needs of such people, fine-tuning such work by assimilating their inputs as progress is made. Other goals should be subordinated to this one; strategies and tactics selected as a function of their contribution to this end.

The members of the FSG are fully conscious of their privileged status as members of an intellectual élite paid, on the whole, to concern themselves with "development" in a world characterized by the growing power of transnational corporate capitalism, repressive, centralized State bureaucracies, military régimes, etc. The Group therefore has no illusions; faced with such odds, that intellectuals can turn the tide, but does believe that they can at times make specific contributions to social forces struggling to improve their position vis-à-vis the wielders of local, national, and international power.

As a summary of the Group's work to date, this report incorporates sections of the Issues Paper, particularly for defining the "hunger problématique." It then looks at some implications of this problématique for research and some obstacles to relevant food/development scholarship before suggesting elements that should be part of a progressive research programme. Pierre Spitz offers a critique of the instruments of scholarship. Finally, a programmatic diagram is suggested which could, in turn, be a basis for education and training programmes. Current activities of some FRG members (particu-

larly research designs and suggestions for projects) are supplied in Annex I as examples of desirable directions for scholarship.

The Food Study Group wishes to express its thanks to George Aseniero of the GPID staff in Geneva for his time and efforts in helping with material arrangements and, above all, to the UN University for making its meetings possible. It hopes that this collective reflection may contribute to the UN University's future work.

I. THE HUNGER PROBLEMATIQUE

Susan George

A. Dimensions and Rationale of the Food Problem

The food problem has many dimensions, but in the context of an economy of consumption it can be visualized as a sliding scale with clinically defined overconsumption at the top and physiological starvation at the bottom, with varying degrees of qualitative and quantitative adequacy and inadequacy between them. Such gradations correspond roughly to socio-economic categories and especially to income levels. The only serious food problem in today's world is, however, that of the hunger of millions of people who do not get enough to eat to satisfy their minimum needs.¹

Hunger exists not only because of the maldistribution of food itself but also because of highly skewed income distribution which precludes the purchase of adequate amounts of food. Maldistribution of income is, in turn, a function of maldistribution of wealth and of a private ownership system which imposes no upper limit on individual or corporate control of the means of production — including those of food production — nor on the amount of wealth which can be accumulated. In contrast, the lower limit, that of zero ownership or even sub-zero ownership (e.g., in the case of chronic indebtedness) is only too clearly defined.

Hunger is also a function of the misappropriation of human and physical resources. Capitalist entrepreneurs are not in the business of providing employment nor of satisfying the needs of society as a whole, but are guided solely by the profit motive. In capitalist economies, income distribution determines not only consumption but

consumption patterns. In other words, the system's priorities will encourage the production of foodstuffs and other goods which yield the highest profits and which are therefore geared to satisfying the needs (or the whims) of those who can pay. Such priorities will also, obviously, determine the use-patterns of human and physical resources. A perverse resource/use-pattern will correspond to a perverse income/consumption pattern in which market, i.e., monetary, demand will direct the flows of raw materials, including foods, and finished goods.

It is therefore altogether logical that countries in which a high percentage of the population suffers from hunger and malnutrition should often be the same ones that supply traditional or perishable cash crops to affluent purchasers, generally in the northern hemisphere but also to Third World élites. People without purchasing power are placed, ipso facto, outside the market and exert no influence whatever over what it will provide.

Arguments stressing the existence of enough food in the world to furnish each of the planet's inhabitants with a daily diet of over 3,000 calories are striking but may tend to obscure the fact that no country on earth, including the richest, has yet reached the outer limits of what its population (given sufficient income) can consume in terms of value, not numerical calories. Wealthy consumers often enjoy regimens of 8,000 to 10,000 calories per day if the large proportion of animal-based products in their diets is calculated in grain-equivalent terms.

It remains to be seen whether a system entirely based on profits and purchasing power will continue to provide some food for the indigent in order to forestall major upheavals which could endanger its overall hegemony. Food aid plays a vital role here, as do free, or subsidized food-distribution schemes. The palliative aspects of food distribution under capitalist conditions will depend on the balance of forces within each particular national community and upon the rank and importance of particular nations in the international system (e.g., the major beneficiaries of food aid). Whatever the level of aid to the

destitute, it constitutes neither a permanent nor a structural solution to the persistence of hunger.

B. Classic Development Strategies and Control over Food Systems

In the past quarter-century, huge transfers of capital and technology have led to the extension of perverse resource-use and resource-enjoyment patterns in the Third World, where the present and probable future food situation must be examined in the context of expanding capitalist control. The tendency of western development planners and of Third World nationals trained in their methods has been to take a piecemeal approach towards hunger alleviation. Thus, instead of seeing the food problem as a function of a chain, or system which begins with inputs (physical as well as intangible, e.g., research and credit), proceeds through food production per se, and continues through the storage, processing, and distribution phases before reaching the final consumer, planners have tended to focus on one or another isolated aspect of the system. The now discredited "Green Revolution" was a strategy concentrating on inputs, the current vogue is for "Post-Harvest Technology"; both exhibit narrowness and a technocratic approach.

Strategies for particular countries are, furthermore, generally viewed as operating behind closed frontiers, without reference to international market forces or to interventions by agents representing food systems external to the one of the country concerned. To hope that such strategies will succeed — whether they focus on inputs, on increased production, reduction of post-harvest losses, provision of specific nutrients, or on any other segment of the food system chain — is utopian in so far as the central issue of the whole food system has not been confronted: the issue of control.

The question "Who is in control?" may be answered with examples chosen at random from any point along the food system chain; one might begin at the beginning with seeds. Seeds can be selected for maximum yield (given suitable and costly inputs) or for maximum reliability under

stringent climatic conditions. They may lend themselves to easy self-reproduction or may deteriorate from year to year (e.g., hybrid corn); they may be geared to plants containing maximum nutritional value or, as in some developed countries, to the needs of mechanical harvesters. If peasants controlled current research and reproduction of seeds, it is likely that they would ask for, and get, such characteristics as reliability rather than maximum yield, reproductibility rather than deterioration, and high energy/nutritional value. Because seed research and reproduction have been largely under the control of industrialized countries, such characteristics have not generally been sought.

Control over one aspect of the food system implies its extension to others: again, the choice of seeds determines not only the inputs required but also "appropriate" storage and processing techniques.

One highly significant aspect of this issue of control is that exercised by rural oligarchies over poorer peasants: in village after village, a tiny local power élite holds sway over credit, marketing, access to water and other essential services, employment (including that of family members), not to mention the use of the land itself under a variety of more or less extortionate tenancy and sharecropping arrangements. Such power has now been widely recognized; even governments which have done little or nothing to redress the balance pay lip-service to the concept of greater equality and realize that top-heavy power structures act as a "political constraint" on food production.

C. The Role of Industrialized Countries' Food Systems in the Hunger Problématique

A less widely acknowledged aspect is the increasing degree of control that developed country food systems exert over those of the Third World. The expansion of markets for Green Revolution inputs and other equipment or processes is only a part of the picture. The orientation

of Third World agriculture is itself increasingly determined by outsiders who can provide cash markets for various kinds of produce. Many crops formerly produced in the temperate zones for temperate-zone customers are now more cheaply grown in tropical countries. Traditional cash crops have been joined by exports of luxury foods — many of them perishables — and animal foodstuffs.

The penetration of indigenous Third World food systems is largely, though by no means exclusively, carried out by transnational agribusiness corporations. These companies generally no longer wish to exercise direct control over Third World land, but gain a stronger hold over activities. Operations entailing risk, like farming itself, are left to the LDCs and their peasantries, while more profitable operations such as processing, marketing and the provision of inputs, credit, or management skills are carried out by foreign corporate interests. The latter have also recently shown a strong interest in providing storage facilities, an area hitherto largely under the control of families, villages, or local authorities.

D. The Transfer of a Dominant Model

When industrialized countries intervene in the food systems of Third World nations, they are not merely providing separate items and techniques, nor even a "package" of techniques. With the help of their foundations, their universities, their corporations, and their banks, they are transferring a dominant model, which, over time, will tend to become unique as it blots out and absorbs the rich variety of peasant practices.

This model originated in the West, particularly in the United States, where prevailing conditions included plentiful land and relatively little labour for food production. It was therefore economically (although no longer ecologically) a rational response to the constraints of a well-defined geographical and social situation. The goal of this model is to obtain the maximum output per person, not per

unit of land. The conditions which gave rise to this model are wholly untypical of the LDCs, where, on the contrary, the provision of productive employment to large masses of rural people remains a major unmet priority. Because the dominant model contributes to the breakdown of traditional agriculture and to the dispossession of hundreds of thousands of peasants, it can only compound unemployment, while contributing very little, if anything, to increased food production. In any event, incremental production will be even more unfairly distributed by the very fact of unemployment and consequent lack of purchasing power.

Although the promotion of the dominant model can frequently be directly traced to interventions on the part of particular western governments, international organizations have also played a crucial role. They have at best treated the human and social objectives of development in a rhetorical way and have not allowed this rhetoric to interfere with their basic support for the western agricultural model in the LDCs. In spite of all declarations to the contrary, they have fostered the emergence and diffusion of high-technology, capital-intensive farming.

E. Socio-economic Effects of the Dominant Model in the LDCs

The adoption, in whole or in part, of the dominant model by LDC governments, encouraged by international organizations and frequently under pressure from transnational corporation and "aid" partners, has led to a series of disastrous consequences. The gravest among them is the accelerating dissolution of self-provisioning agriculture both as a major element in peasant farming and as a subsistence base of the poorer rural strata — the prime victims of hunger. Some of the other consequences are as follows:

- Relations of production and exchange, formerly oriented more directly to the maintenance of family livelihoods, become commercialized.

- Competition between peasants and entrepreneurial farms for the use of good quality land increases in direct response to higher demand for both food and export crops.

- The environment suffers as increasing numbers of families try to extract a livelihood from land that is diminishing in area and deteriorating in quality because of the over-use and improper husbandry they are obliged to practise for immediate survival.

- Agricultural "modernization" strikes women particularly hard. They are among the first to be eliminated when commercialized farming overtakes self-provisioning, as the consecutive Indian censuses of 1961 and 1971 clearly illustrate. During that decade, two-thirds of all female cultivators ceased activity, while the number of female agricultural labourers increased by 50 per cent.

- Food "imperialism" accompanies the introduction of the dominant model. The "baby-foods scandal" provides a flagrant example, but other foods have received less attention. Some, like bread or soft drinks, may gain great prestige. Although the dominant model may promote commercial pseudo-variety (as in US-style supermarkets), true cultural variety inherent in the production, preparation, and consumption of a broad spectrum of foods is markedly declining. This decline is accompanied by the deterioration of nutritional levels. Commercial promotion of western processed foods downgrades not only local diets per se but also the symbolic value of traditional foods perceived, by comparison, as culturally inferior. Third World élites may take the lead in such consumption and are then imitated by their less privileged compatriots.

- Food aid plays a vital role in the introduction of new dietary habits. It can also create a bias towards foreign solutions of local problems: whereas nutritionists in Mysore State had developed suitable high protein foods from local raw materials, their formula was rejected in favour of the corn-soya-milk blend provided by the US PL 480 Food Aid Programme.

- Countries whose "export-led" agricultural strategies cause them to emphasize the supply of foreign markets, and to forsake their peasantries attempting to produce food for local consumption, grow increasingly dependent on massive cereal imports, tying them both economically and politically to privileged suppliers, more often than not the United States.

- Outside interventions and transfers of technology tend to reproduce the high-capital, low-labour-intensive characteristics of industrialized countries' food systems. This necessarily increases the cost of food, which must remunerate invested capital (e.g., centralized storage adds an estimated 20 per cent to the cost of grains sold in LDCs, according to an FAO expert). This, of course, places food beyond the reach of poor consumers and contributes to eliminating peasants who cannot compete in wholly mercantitized food systems.

F. The Rapid Decline of Self-Provisioning

However deleterious these consequences of the introduction of the dominant model (the above list is far from complete) it must be stressed that the most serious among them is the marked decline of self-provisioning agriculture.

The drama of this process of decay lies in the fact that the "umbilical" attachment of people to the land at the level of the family or kin-group is, with all its insecurities and natural hazards, the food system that has maintained mankind during most of its history. In the market-oriented developing countries, trends are encouraged that inevitably confirm or accelerate the decline of self-provisioning before other forms of economic activity are able to offer alternative means of livelihood to the displaced peasantry. As a consequence, marginalization and proletarianization are proceeding inevitably in Asia, Africa, and Latin America, though at differing speeds and in different ways.

The full significance of this transformation is not entirely comprehended, but it seems to imply deterioration in the nourishment of the already poor as they are obliged to purchase food in unfavourable conditions from the market; massive migration to urban centres and a much higher level of

conflict, disorder and repression. The removal of productive assets from women through new forms of division of labour in agricultural production may often result in a serious reduction of food provided to rural families.²

The actual producers of food – the overwhelmingly rural majorities of the Third World – are being progressively divested of their control over what they shall produce, by what methods, and of the resulting harvest. Imitation of the western high-technology model and continued subservience to the needs of outside food systems cannot be expected to eliminate hunger – only to make it worse. The relevant questions in the "hunger problématique" have become: "Who controls the surplus?" "Who has the power to define what constitutes the 'surplus' at the expense of the starving and malnourished?"³

II. SOME CONCEPTUAL ISSUES AND OBSTACLES

In the light of the above, what are some of the issues and obstacles that must be faced by individuals and institutions seeking to help transform this problématique through the use of the instruments of scholarship?

A. New Slogans Versus Old Realities

There seems now to be near-universal recognition, at least at the rhetorical level, that "growth models" and once-popular "technological fixes" have not worked. Policies favouring capital-intensive, import-substitution industrial development have led to neglect of agriculture as a whole, and, within the agricultural sector, the wealthiest and most "progressive" producers have received attention at the expense of small peasants and landless labourers. As we have stressed, these groups have become increasingly unable to produce enough or to buy enough food to meet their minimum needs. Such statements may now be regarded as truisms, but this does not mean that development agents and agencies are acting on their implications.

The proven ineffectiveness of liberal solutions for the pressing problems of the Third World has not even been accompanied by a genuine conceptual change of heart. Old slogans ("GNP growth," "trickle down," "take-off," etc.) wear out and are discarded, yet their replacements look suspiciously similar behind new facades. Concepts which may have been innovative when formulated by Third World leaders are de-radicalized by the development Establishment, or this Establishment simply forges its own new "appropriate terminology." Two potentially

radical concepts currently undergoing this watering-down process are the New International Economic Order and Basic Needs.⁴

So long as this Establishment maintains the conceptual initiative and is able to impose its own terms of reference, it will hold an important tool for entrenching the status quo. Progressive scholars must attempt to regain the initiative in this area (some elements that could contribute to this goal are given in sections III and IV).

B. Technical Solutions versus Politics

Although one now sees numerous references to the "political will necessary" for carrying out the bland recommendations of international conferences, in practice development expertise generally confines itself to technical questions supposedly amenable to technical solutions. The all-important political dimensions in any real development (which always implies gains for some and losses for others) is left out.

The "development intelligentsia" also treads carefully even where technical issues are concerned, avoiding meaningful examination of the social and political context in which they are placed. In designing projects, implementing scientific discoveries (e.g., Green Revolution seed varieties) or planning changes in technology, it usually ignores the following postulates which ought to be obvious to any neutral observer:

1. A project (scientific discovery, technological innovation, etc.) benefiting the least favoured classes will not be acceptable to the dominant classes unless their interests are also substantially served.
2. A project . . . which benefits only the poor will be ignored, sabotaged, or otherwise suppressed by the powerful insofar as possible.
3. A project . . . which serves the interests of the dominant classes while doing positive harm to the poor will still be put into

practice and if necessary maintained by violence so long as no basic change in the balance of political and social forces takes place.⁵

Development experts design programmes they claim will "reach" the poor while offering no guarantees to that effect. The implementation of projects in which the poor stand to benefit may succeed so long as the area is saturated with capital and so long as these projects are administered over small areas by dedicated personnel having no particular interests to defend. It is, however, unrealistic to suppose that beyond the pilot stage, market forces will not intervene and that the wealthier and more powerful elements of society will not appropriate whatever technical and financial benefits the project was designed to create.

C. Systematic Adjustments versus Structural Change

Most research presently carried out by development agencies is concerned with "face-lifting" operations, not structural change, and starts from the premise that the present world system, given a few compromises, can be made to work for everyone, as it is claimed to have worked for everyone in the now-developed countries.

The FSG does not believe systemic adjustments (e.g., the inclusion of more people in Green Revolution-type strategies), even if they occur, will change the status of the masses of hungry people more than marginally. Thus we cannot advocate research basically committed to "tinkering" with present structures. This is a waste of time if one's goals are really to benefit those who presently lack all control over the circumstances of their lives. Aside from what we consider the false premises and the self-serving nature of such scholarship, we might also point out that those seeking systemic adjustments rarely if ever consult the poor and powerless people their research is nominally designed to serve. Top-down research design and project implementation is still the rule.

We also take note that successful systemic adjustments in the past (successful, that is, in staving off acute social conflict) have to a large degree created conditions that make improvement in the status of the poorest members of society virtually impossible. One example submitted to the Group (by D.D. Narula) is that of the very limited land reform in India, which nonetheless extended rural control from 1 to 2 per cent of the landholders to 18 to 19 per cent today. It will be far more difficult to dislodge this recently created class than the previous feudal one without profound and painful social change.

Much research sponsored by major donors is also directed toward helping people to make do with less rather than aiding them to obtain more. Efforts are directed to "getting the most from" an environment already depleted by the greed of national or international interests which have reduced the quantity and quality of resources available to the poor. Little work is devoted to strategies for regaining even those rights that theoretically belong to the most deprived, much less for demanding new ones.

How should one approach research basically concerned with such stop-gaps? There are delicate moral problems involved here: one cannot avoid the problems of immediate survival facing the poor today, nor discount the possibility of perhaps saving a few lives through palliative measures that may help the powerless temporarily and in limited ways. Thus we would not state categorically that one should not engage in alleviating, wherever possible, the miserable conditions of the hungry. But this sort of work is, like it or not, on the level of "systems tinkering" and basically accepts the status quo. It should not therefore be a priority for those who hope to do relevant work against the mainstream.

D. Conflict with the Dominant Research Establishment

As in other areas of human affairs, the area of research is a terrain for conflict — at least when anything of importance is at stake. When

there is general agreement on what constitutes the proper province of scholarly objectives and activities, one may assume that those who have an interest in maintaining the existing balance of power do not feel themselves threatened. Progressive scholars should thus welcome conflict as an admission that their work is doing powerless people some good, or might aid them in the future. This is a serious responsibility and places upon such researchers the burden of being more rigorous than their detractors and opponents while at the same time avowing and defending their "value-loaded" approach.

The most immediate conflicts for progressive intellectuals and institutions will occur with the dominant research Establishment which will quite naturally seek to maintain and increase its control over scholars and scholarship.

This Establishment has a number of ways of ensuring its hegemony. One of the simplest and most effective, as a number of Third World FSG members have brought out, is merely to occupy the terrain. Western foundations, universities, aid agencies, etc., appear in force in country X and immediately enlist the cooperation of all, or nearly all, the available scientific manpower, expertise, laboratories, and institutions available. In most Third World countries, indigenous scientific capacity is underfunded to begin with, so it is materially feasible to put whatever capacity exists to work on spurious projects — or even on projects that quite candidly serve the needs of donor countries (as is the case with US "Food for Peace" counterpart funds spent on agricultural or "market development" research carried out in aid-recipient countries by indigenous scientists).

Any project proposed independently and designed to be of real assistance to the poorest and least influential groups, or one which might lead to a change in existing social relations, is, in effect, placed in direct competition with handsomely funded programmes which generally appeal to governments as much as they do to large and powerful donors. As one of our members says, speaking of the obstacles encountered in trying to start a small project targeted to the poorest

people in a country heavily populated by development experts, "I found the patterns of allocation of resources and grants strongly biased towards these well-established and dominant research institutions whose main objective seems to be confined to their own reproduction and development. In this respect the role of international agencies was determinant." If by some freak occurrence an innovative project does get underway, according to this same participant, "it becomes the focus of attention of international donors and observers visiting the country, receives a lot of publicity and diverts attention from the real (overall development prospects) in that country." Such innovations, if they cease to be invisible to planners, take on an alibi status; in both cases they can be made to serve the system's needs. It is unwise for a local scientist to protest such an orientation of the scientific capacity of his country: "The only two scientists who contested the way in which research was undertaken in the major . . . institution were fired from their assignments."

Another member points out that a position in the international research Establishment is richly rewarded — the highest priority for Third World intellectuals apparently being at present expert status with the World Bank. This is also why they strive to obtain diplomas from prestigious western institutions — these are much more highly rewarded than degrees from Third World universities.

A third member analyses the social realities of research carried out in underdeveloped countries as follows.

Most funds for research come from outside the country (from industrialized-country sources) so it is understandable that the objectives, the methodologies, and the terms of reference also be dictated from the outside. Some work by Ph.D. candidates is done for established professors with their own theories to defend. Younger scholars must conform to the professors' guidelines if they want to find a job in academia later on. Scholarship may also serve to support the foregone conclusions of decision-makers or of the international development-planners who so frequently dictate the choices of national planners.

Scholars are virtually told what their findings are expected to be. Such work obtains recognition for the intellectual in government and/or academic circles, whereas independent, progressive researchers are rarely promoted. It is no wonder that their number is infinitesimally small compared to the numbers of "yes men" (and "yes women"). The near-total irrelevance of most social science curricula to the value systems, perspectives, or historical evolution of Third World peoples has also been stressed by Group members. (Pierre Spitz's contribution will take up these issues below.)

E. The Dominant Research Model: Prestige without Accountability

We have attempted to show how the dominant western agricultural model is being propagated in the Third World with harmful consequences. (The same could be said for other areas — e.g., health care, industrial development under the aegis of transnational corporations, etc.) That there is also a dominant model in research, accepted and admired by most Third World intellectuals and seen as prestigious by their governments, cannot be overstressed.

This prestige is not fortuitous. The dominant research Establishment is actually engaged in two kinds of work. The first is empirical and operational and hews very close to reality because it is concerned with a more efficient manipulation and management of that reality. The audience for which it is prepared is a limited one; much of this work is confidential and restricted to the commissioning agency. It must, in fact, be largely confidential because of its adherence to reality, because most reality is oppression.

The second kind of work is more closely related to ensuring this model's dominance through the production and dissemination of an ideology destined for the broadest possible audience, spread by a variety of media and institutions, including universities. The practitioners of the first kind of scholarship should have no difficulty identifying the interests they are serving: they share these

interests to the degree they are rewarded by them. Scholars in the second group may not always understand the role they are playing. If so, they are themselves victims of the dominant ideology — naive but not dishonest; if not, then cynical or motivated by gain. Both kinds of work may, of course, be done at different times by the same persons.

Almost all research is geared either to production or to social control and is carried out for institutions (e.g., transnational corporations, leading foundations, lending agencies like the IBRD) which exercise power without any mitigating accountability. "Production" in this context means production of goods and services which are wanted and can be paid for by consumers with purchasing power. This aim automatically precludes research and development addressed to satisfying the needs of those who live in poverty. The bodies which impose these goals on present research are answerable to no one — except a hand-picked board — and the FSG considers it fruitless to ask, or to expect, them to change their aims. They are not to be persuaded, but rather confronted and exposed.

That members of the power structures are willing to devote substantial resources to research indicates that the latter is not a luxury good but an important input to control: it helps to strengthen the power of those who exercise it while simultaneously contributing to thickening the ideological smokescreen behind which this power is exercised.

III. SOME ELEMENTS OF A PROGRESSIVE APPROACH TO RESEARCH

A. Research on Research

One immediately necessary task for progressive scholarship is to confront the dominant research Establishment on its own ground. The sheer weight of resources devoted to spurious or irrelevant projects in the Third World ensures that the enormous body of work turned out will have a wide influence. (One may, for example, recall the success of the "overpopulation-is-the-cause-of-hunger" school.) The FSG's refusal to condone or participate in this kind of scholarship thus carries an important corollary: we see it as one obligation of intellectuals to carry out "research on research" if they hope to undermine the dominant model's influence and compete for its audience in both developed and underdeveloped countries. It is important to examine what Establishment research covers and why particular projects (and, of course, particular countries) are of special interest to bilateral and multilateral funders at particular times. It should be a relatively easy task to ascertain which social groups stand to benefit from the choice of certain projects over others. (See also section IV for another aspect of research on research.)

B. Studying the Powerful

Related to this target (examining power by examining its uses of the instruments of scholarship) is the importance of studying the dominant social and political forces both spatially and temporally. The FSG believes that the reasons for poverty and hunger are not to be found mainly within the class of the poor and hungry but in their relation-

ships with the rest of society (from the local to the national to the international level). The most important focus for research on poverty, which itself causes hunger, can be summarized in the single word "power": power as it is expressed in social classes and through the institutions that serve them at every level.

In The Crisis of Democracy the Trilateral Commission castigated "value-oriented intellectuals" who "devote themselves to the derogation of leadership, the challenging of authority and the unmasking and delegitimation of established institutions" including those responsible for "the indoctrination of the young."⁶

We would assert that intellectuals should not only be value-oriented but indeed devote themselves to just those tasks decried by the Trilateral Commission. This can be achieved in different ways at different levels.

As Pierre Spitz points out, there is a hierarchy in research (which is not to imply that one kind has more intrinsic worth than another): (1) factual or empirical work, in which the researcher's values naturally determine the topics pursued and the facts sought; (2) research designed to verify a hypothesis clearly defined at the outset and in which facts serve this aim; (3) epistemological research concerned with the very concepts and paradigms that underlie research and the tools it uses. At each of these levels, dichotomies (and conflicts) between the dominant and the dominated classes are, or should be, apparent. One of the tasks of research is to unmask the interests involved at every level — interests which will also determine the clientele for, and the uses made of, research. We do not wish to give the impression that research can be separated from its applications, particularly from its role in the creation of a dominant ideology and its dissemination through the mass media or educational and training institutions. Such categories as "education" and "training" are subsumed under "research" in this report.

C. Multidisciplinary Studies

There has been a general recognition, at least in the progressive scholarly community, that single-discipline research for rural development is not the road to success. Although single-discipline work still prevails in the far greater part of scholarly output, there are numerous signs that a multidisciplinary approach is becoming fashionable. This itself will not constitute a panacea. If the disciplines, whatever their nature and number, still revolve around the old paradigms and tackle the wrong problems (or the right problems in the wrong ways) they might easily do more harm than the previously more limited approach. Multidisciplinary work could, however, become an important instrument if it were to take on the issue of power as it expresses itself at the global, regional/national, and local levels.

D. Creating and Using New Stocks of Knowledge and Innovative Methodologies

Beneath the "growth model" that dominated development thinking for so many fruitless years lay the assumption that there was a unique stock of knowledge (science and technology), that this was the exclusive preserve of the industrialized countries, and that it needed to be transferred along with capital if Third World nations were ever to "bridge the gap." But a concept of human development cannot mean "western" or "élitist." Does anyone really believe that insight is so asymmetrically distributed that billions of men and women deeply engaged in food production, preparation, distribution, and consumption know nothing at all, whereas a few selected researchers (nutritionists, social scientists, agronomists, et al.) know everything? Thus stated, most would agree that there must exist huge stocks of knowledge beyond the confines of "official" science and technology, but that they have gone largely uncollected, untapped, and unmobilized. There may be, in fact, four separate stocks of knowledge, two of which are as yet largely uncreated:

1. Western, positivist, mechanistic science and technology;

2. traditional, empirical, operational stocks of knowledge, stored by peasants and closely adapted to survival skills within the constraints of a wide variety of environments;
3. knowledge which might come from interaction between (1) and (2), if only self-satisfied "experts" can be persuaded to listen and learn, and peasants, so long disdained, can be persuaded they have something to teach;
4. knowledge which might come from the significant demand in many developed countries for a simpler, more humane life-style.

New nature/human/technology "mixes" are needed, including many that have not been imagined yet, but which might be part of that "Third Science" stemming from a real dialogue between North and South, peasants and experts. This would necessarily imply sharing decision-making power as well as knowledge; as mass consciousness increased, élites would find their power diminishing.⁷

Methodologies of the social sciences in particular (but also of nutrition) developed during the late nineteenth and early twentieth centuries in an urban, industrial, masculine, western context. They are thus more apt to be good at defining — and answering — questions posed by urban, industrial, masculine western societies. Research has not only treated people like objects, but has suffered from environment-blindness, sex-blindness and age-blindness. Nutritional science, for example, knows relatively little about traditional mixes and sequences of foods making maximum use of the environment. When it does take an interest in such matters, it is often to discover that western inroads are destroying dietary practices with a sound scientific basis (e.g., food combinations ensuring optimum balance of amino acids). The invisibility of women in most development-planning can only be corrected when women themselves take an active part in the planning process. Something is known about infants and children under five (unfortunately, mortality statistics form a large part of this knowledge) but very little work has been done on old people. Third World people may have lower life expectancies, but they also age more quickly. In fragile food systems, children and old people suffer

disproportionately; just as they, along with women, are the first to be eliminated from productive work when control shifts from local communities to outside forces.

People have their own ways of stocking information, but these are rarely the ways that figure on social scientists' questionnaires. If peasants are asked, for example, how large a yield they produced, or how much they spent on cloth last year, or even how large their plot of ground is, they may have difficulty answering, but this does not mean they are stupid. Their measurement and information system merely uses other criteria: e.g., the "quantity price," or amount that can be bought with one unit of currency at different times of the year; or the "commodity basket" of purchases that are approximately the same every week or month; or the number of months they and their families were able to live off their own harvest without having recourse to purchased food. Questions asked inside the peoples' terms of reference will receive useful answers.

Surveyors who have rarely ever been hungry themselves can perhaps not be expected to realize immediately that annual data about food intake would seem strange indeed to peasants and their families whose problem is survival tomorrow, next week, and next month, especially during the lean season. Surveys could, however, very usefully look at fluctuations rather than averages for various socio-economic groups. A survey of a village one month before and one month after harvest would give entirely different results.⁸ This would mean that projects would have to last longer and that the "people's methodology" would have to be adopted in order to learn something worth knowing.

E. The "Objects" of Research Must Become Its Subjects

Those for whom progressive research is purportedly being done — the poor and hungry — must be consulted about their needs and helped by the researcher to define those needs. We believe that the worst-off know very well why they are poor, at least on the immediate local

level, and that this knowledge represents one starting point for improving their status. This can only come about through various forms of organization in which the researcher should take as active a role as is warranted by the expressed desire of the community in question. We are not sure there are any serious thinkers who still believe in scholarly neutrality, but, if so, we would like to paraphrase Orwell and point out that "all researchers are neutral, but they are more neutral towards some social groups than towards others."

It is here that the problem of the accountability of the researcher should be posed. Intellectuals working at the "micro" or community level should be accountable to that community, and the worth of their work determined by the degree of relevance to its felt needs. (Scholars concerned with "macro" level issues might well be judged, on the other hand, by the degree of controversy and confrontation their work gives rise to.)

Real development is incompatible with methodologies which envisage only the collection of data by an "objective, impartial" scholar using a pre-designed survey questionnaire. There must also exist a commitment on the researcher's part actively to foster social change in the desirable direction. The intellectual must feel a sense of identity with the situation and, perhaps most difficult, must accept to be changed by the research process; as of course the researched will also change if there has been real interaction. "Participatory" or "dialogic" research emphasises the holistic approach, i.e., for food problems the researcher would enter into a dialogue with the people about life in the community as a whole, because food, nutrition, health, etc., are not viewed separately but as parts of life. The people's identification of the problem, their assessment of the obstacles to solving it, and their proposals for doing so in spite of the obstacles should form the total process leading to meaningful action. Interaction between "expert" and people should upgrade traditional knowledge as well as create new knowledge to be integrated into community practice.

The important point is that any research project is itself a part of the power structure: a progressive project should thus be concerned either with (1) denouncing with factual proof present power arrangements and their harmful effects on the poor — or at least showing the gap between rhetoric and reality in the way power speaks about itself (the "discourse") or (2) strengthening the capacity of the poor to organize and free themselves from oppression. It is likely that most projects would not be able fully to combine these two aspects, and that one person would not be able to do both kinds of work, but both are important. An unresolved problem is how to establish fruitful collaboration and continuing contact between scholars engaged in type (1) or (2) so that their work becomes mutually reinforcing. A progressive research/educational institution could play a very important role in facilitating and maintaining such contacts. It might be particularly helpful to groups in the Third World to be able to make their needs known to scholars in the developed countries where access to documentation on the power centres is easier.

F. Research Outside the Dominant Food-System Model

We have attempted to make clear the concept of a food system and to suggest that there are large systems, or cycles, spanning countries, continents, or the whole globe which are gaining, in importance, while small food cycles — self-provisioning on a family, community, or regional level — are declining. This is perhaps an inexorable and irreversible movement; we cannot say. We believe, however, that it is the duty of the researcher and the development-planner to protect, to strengthen, and to enhance the smaller cycles in all possible ways; to resist the encroachment of the large ones which are leading to increased hunger in the world.

It is particularly urgent that scientific research outside the dominant agricultural model be undertaken without delay. Without wishing to appear apocalyptic, we would still like to point out that a new world food crisis may be looming which could make the crisis of 1972-74 seem

pale by comparison. The World Food Conference of 1974 predicted that the developing countries would be importing around 85 million tons of food in 1985. By 1978-79, the figure had already gone beyond 70 million tons (as compared to 50 million tons in 1976-77). After several years of abundance in the late 1970s, the stocks of the major grain exporters (particularly the United States) were being intentionally drawn down with the result that a bushel of US wheat which sold for \$3.12 in late August of 1978 is worth \$4.43 at this writing (November 1979), and had gone as high as \$4.60 in July before the first new harvests came in. The food dependency of most importing countries is increasing, not declining, and the failure of governments to conclude a new International Wheat Agreement in February 1979 is another ominous sign. Most observers believe that developed countries will continue to devote even greater amounts of grain to feeding animals in their own countries, thus further limiting available supplies.

The equilibrium of international food markets, with their reliance on the US and to a lesser extent a handful of smaller exporters such as Canada, is so precarious that any relatively minor shock — climatic or commercial — could set off a disproportionate market reaction for which the Third World would have to pay. Outsized purchases by a major importer such as the Soviet Union or China; blight, or failure of the monsoon in Asia; a drop in US production; any or all could trigger an uncontrollable upward spiral in prices as speculation took hold. Food aid cannot be expected to palliate such conditions: the historical record shows that aid decreases as commercial purchases increase in the context of tight markets.

Only those countries deemed politically vital would continue to receive a significant supply of food aid in a period of scarcity. To these disquieting factors must be added the increasing reliance of Third World food systems, imitating the dominant system, on energy-dependent inputs like fuels, fertilizers, and other petroleum-based chemicals. This comes at a time when even increased OPEC-country aid cannot compensate for their mounting costs, particularly since western

transnational corporations largely control the marketing of these products.

Many Third World governments seem to be living in a sort of fool's paradise, lulled by several years of good weather and resultant good harvests — and perhaps by a belief in the benevolence of their traditional aid partners and suppliers of major food grains. The present food system, with its reliance on high-energy, high-technology inputs, is growing more vulnerable daily, to the point that it is not unrealistic to speak of an eventual systemic breakdown.

If systems breakdowns do occur (and, to many of us, this outcome appears to be only a matter of time) then we will long for the days when a different kind of complexity — biological, not industrial — made our farming systems more resilient and disaster-resistant.⁹

The higher the level of complex industrial technology in a given system, the more fragile and less capable of withstanding crisis it becomes. From this point of view, the systems in the industrialized countries are the most exposed to breakdown, whereas in the Third World there is still time to preserve and to improve the traditional farming practices which have provided the basis for human survival through several millennia. This, however, with rare exceptions is not being done.

On the contrary — not surprisingly given the intellectual prestige and financial backing of the dominant model in both agriculture and research — most resources are being devoted to fine-tuning the dominant model itself to fit a greater variety of local conditions. Adolfo Mascarenhas reports, for example, that in Tanzania there is an area where peasants are capable of identifying and cultivating 24 different varieties of rice. Yet there is no Tanzanian (much less outside) research team monitoring their practices with the aim of understanding them in a more codifiable and "scientific" way. On the other hand, research grants are being awarded for work on imported varieties of hybrid rice.

One encouraging example of research outside the dominant agronomic model which has come to our attention is the work being done by a team at Heidelberg University. This group takes an "archaeological" approach to land-use practices of traditional farmers (e.g., the Kikuyu farmers in the Kilimanjaro region of Kenya) in order to understand the functional principles involved. The Kikuyu system is multi-faceted, and includes various tree crops, bushes, standing crops, and "weeds" (which play a positive protective role); a system characterized by high species diversity, stability, and complexity able to withstand the particular hazards of the local environment. The Kikuyu peasants exhibit great skill in arranging the species so that they interact with one another; they have also perfected anti-erosion and waste-using techniques demonstrating a high level of scientific sophistication. Some of the lessons learned in Kenya have subsequently been used by this Heidelberg team in designing a minimum-physical-inputs system for farm improvement in Rwanda. They have also developed a similar approach in Mexico, using Mayan cultivation practices as a starting point.

In the context of a traditional system, generally a very efficient user of energy, it is entirely possible to integrate technological elements from outside the original system at fairly low cost. This can be desirable so long as it is the farmers themselves who determine what new technologies are opportune and so long as they retain control over the system as a whole. Thus we are not advocating a museum-conservation approach to traditional systems, however good, nor a goal of simply replicating them, but rather a creative blending of local expertise with western scientific knowledge.

Or, as UNRISD has put it,

We do not suggest . . . that modern production techniques should be rejected as such or that self-provisioning agriculture must be maintained or restored as a necessary basis for food systems and rural livelihood. What is suggested, however, is that the transition to higher levels of technology, increased capitalization and further economies of scale can only be achieved by means of firm and carefully prepared policies and programmes with the active participation of the different social groups concerned, and that much of the know-

ledge essential to the adequate preparation and execution of such policies is not available. In addition, the political will for such programmes and policies can hardly be expected to appear spontaneously in social structures that provide poor peasant groups with little power or influence. The worst danger is the precipitate uprooting and marginalization of rural majorities and nomadic fringe groups before alternative sources of livelihood are available to them.

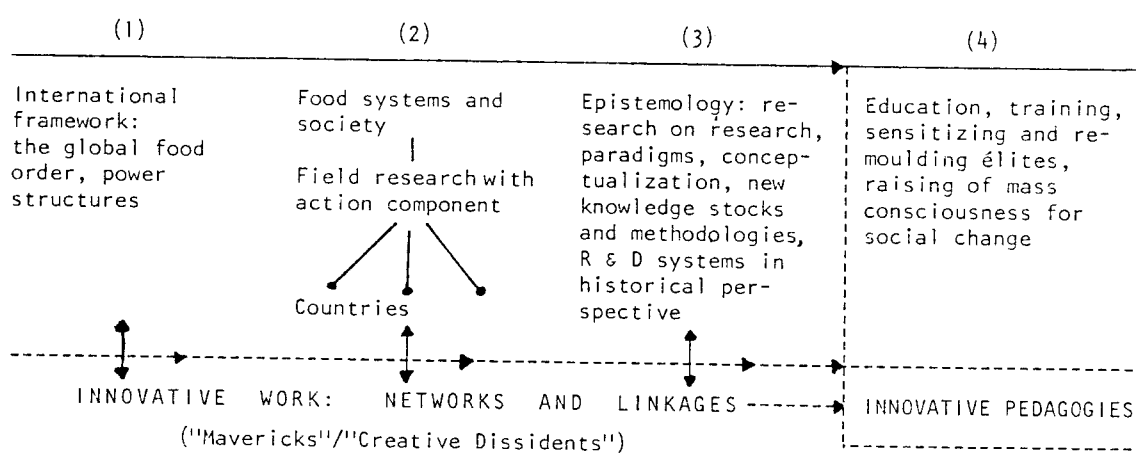
Research beyond the confines of the dominant agricultural model could reduce such dangers to the degree that it strengthened traditional food systems, thus making the communities practising them more resistant to outside pressures. The knowledge that lies behind traditional systems is not always readily accessible to outsiders and can only be acquired through co-operation with peasant practitioners — easier said than done, especially for westerners.

G. Supporting "Mavericks"

The Food Study Group has concluded that a major responsibility incumbent on institutions consciously directing their work against mainstream research and aspiring to help solve the food/hunger problem is to support people the meeting called "fools" but who might also be termed "mavericks." The original Mr. Maverick was an engineer in frontier Texas who owned cattle but refused to brand them. The word is now applied not only to animals but to people who refuse to be branded and to join the herd — "an unorthodox and undisciplined person" for the Oxford Dictionary. One might also call them "creative dissidents" but whatever the name given them, they should find an important place in future research. Because the Group's discussion on this point was largely prompted by a series of observations by Pierre Spitz, he will elaborate in section IV, which follows the Summary and Conclusions hereunder.

Summary and Conclusions

As a résumé of the above considerations, the review team for this report (Susan George, Pierre Spitz, Ponna Wignaraja) submits the following diagram, which provides the framework for a research programme on food and hunger.



Commentary:

1. We have been sufficiently specific on this point: research should be undertaken on the impact of global power structures at national and local levels in underdeveloped countries. Policies of particular actors (e.g., transnational corporations, multilateral agencies, industrialized states, etc.) should be examined to ascertain their effects on food/hunger in the Third World.

2. UNRISD is presently examining food systems mostly at the national level. Some interagency co-operation already exists (e.g., between UNRISD and the UN University or UNICEF) for this project; it should be strengthened so that UNRISD can incorporate findings from component (1), as above, in its analysis. Any number of participatory research programmes could fit into the Food Systems and Society framework whose object is not merely to collect data but to initiate social change. This should include work on upgrading and conserving traditional

farming systems. For a brief description of the project, see Annex 1, page 64.

3. In addition to our preceding observations concerning research on research, the use of new knowledge stocks and methodologies, etc., this component is clarified by Pierre Spitz immediately below. We have tried to show the "mavericks" or "creative dissidents" spanning all the components while contributing to their evolution. This epistemological component is not some sort of "philosophical window-dressing" but a vital contribution to the regaining of what we have called the "conceptual initiative." Until the terms of reference can be changed, research and development programmes will remain in the usual technocratic ruts.

4. The final component is seen as a function of the first three. Assuming governments and other élites want to contribute to solving the food/hunger problem, they will need not only data on the interests which presently prevent this, but also a decolonized conceptual approach that relativizes and delegitimizes the dominant model(s) in any number of disciplines. Such a decolonized approach should be transmitted through educational and training institutions which should help people to recapture and liberate their own creativity — as individuals and as nations. Although this report has concentrated more on the theoretical elements of a hunger problématique, research critique and proposals for change, we believe that most of our observations apply to education and training as well. In other words, there are dominant models in curricula, pedagogical methods, etc.; these models are instituted and maintained by particular classes whose interests they serve; there are also mavericks working outside these models who need support. One form of support is the provision of alternative curricular tools. Participatory research is a form of education which raises mass consciousness, just as the exposure of present repressive power structures is one necessary step toward freeing creativity.

IV. CREATIVITY AND DEVELOPMENT: REVITALIZING THE UN UNIVERSITY

Pierre Spitz

Article 1, paragraph 2, of the United Nations University Charter states:

The University shall devote its work to research into the pressing global problems of human survival, development and welfare that are the concern of the United Nations and its agencies, with due attention to the social sciences and the humanities as well as natural sciences, pure and applied.

With the exception of a few projects located in the Human and Social Development Programme, the activities of the UN University are mainly concerned with the kind of research which is taking place, or could take place, in many institutions of the world at international and national levels. In view of its limited resources, it is unlikely that the UN University will add anything of major significance to what is being done, or could be done, elsewhere.

There is, however, another orientation which could enable the UN University to make a unique contribution in view of its global character and its autonomy, and by virtue of its being a member of the United Nations family.

I submit that the UN University should conduct research on the conditions of production and development of knowledge, both in social sciences and in natural sciences, and on the relationships between social sciences and natural sciences. The conditions of production of knowledge are of a cultural, epistemological, political, and socio-economic nature. The study of the relationships between social sciences and natural sciences calls for an interdisciplinary approach¹⁰ and fruitful confrontation of different paradigms within a holistic systemic approach. The objective of such research is to release the

potential creativity which exists in all countries, cultures, societies, and social groups but is most often frozen by the pernicious influence of the present international order in the poorer countries. The release of creativity in both natural and social sciences is essential in order to generate endogenous solutions to the most urgent problems facing these countries and their most deprived social groups. This proposal is made on the following considerations.

1. Modern science derives its prestige from its contribution to economic growth in the now-industrialized countries and from its apparent effectiveness in an increasing control of nature. It should, however, be pointed out that:

1.1. Scientific and technical developments are dialectically linked with growth in a very complex manner. As Joseph Needham puts it, in a modest way,

The failure of China to give rise to distinctively modern science while having been in many ways ahead of Europe for some fourteen previous centuries is going to take some explaining.¹¹

1.2. Many cultures and societies have contributed to modern science, as can be seen by the study of, for instance, Chinese, Indian, and Islamic sciences. Joseph Needham uses the image of

. . . the ancient and medieval sciences of all the peoples and cultures as rivers flowing into the ocean of modern science. . . . Undoubtedly, among the sciences, the point of fusion varies, the bar where the river unites at last with the sea. In astronomy and mathematics it took but a short time, in the seventeenth century; in botany and chemistry the process was much slower, not being complete until now, and in medicine it has not happened yet. Modern science is not standing still, and who can say how far the molecular biology, the chemistry or the physics of the future will have to adopt conceptions much more organicist than the atomic and the mechanistic which have so far prevailed? Who knows what further developments of the psychosomatic conception in medicine future advances may necessitate? In all such ways the thought complex of traditional Chinese science may yet have a much greater part to play in the final state of all science than might be admitted if science today was all science will ever be.¹²

1.3. From astronomy and mathematics to medicine, unifying paradigms have taken more and more time to mature. This idea of a gradient of increasing complexity can be applied to the social sciences which lie between natural sciences, in which experimental validation is to some extent possible, and art, where the idea of progress is absurd.¹³ Social sciences have developed in the western world in response to specific problems. But they are still far from attaining a universality which would allow them to be applied with the same relevance to different societies and to different periods of time. In their pre-paradigmatic stage, however, they derive such legitimacy from their connection with the economic growth of the western world that, to take an example, agricultural economics developed in relation to the needs of North American farming are applied to the rural economies of poor countries which have an entirely different system (incomplete monetization, central importance of self-provisioning, seasonality and inter-annual fluctuations, non-separation of the farm and of the family economy, etc.). These apparently sophisticated analyses, legitimized by their apparent scientific method, are relevant only for rich farmers whose "modernization" makes them more akin to their lowa colleagues than to the poor peasants, victims of these western-inspired agricultural development projects which strengthen the rich and weaken the poor.

1.4. The role of social sciences in inspiring and legitimizing economic and social decisions is particularly dramatic in poor countries on the agricultural and food scene. While agricultural production is a system of a very great complexity and flexibility, rigid models are chosen, because they have been successful in the now-industrialized countries. In these countries scientific developments have taken place in very specific areas of plant and animal production, while entire areas of research have been neglected because they did not seem profitable given the general development model and specific price and profit structures — soil biology, and particularly microbiology, inter-varietal and inter-species relationships, etc. In the agricultural research of the tropical countries, patterned after this western research, the same areas have been neglected when they should

have had the highest priority. (Numerous examples of how social sciences legitimize orientations of research in natural sciences can be given.)

1.5. Even if the relationship of science to growth was univocal, growth could not be attributed to science alone: colonization of new lands and plundering of countries contributed to the economic growth of a few countries and increased the gap between them and the rest of the world.

Even in the now-industrialized countries, this economic growth is viewed more and more as unsound for some social groups and because of its long-term implications for energy and raw materials availability, environment, etc. The control of nature is not as triumphant as it appears but is limited to some elements of the environment for a limited period of time. The limits are set not by science but by profit considerations of the dominant social groups.

2. Those who hold that modern sciences are able, through a simple geographical transfer and acclimatation, to remedy the destructive effects on other societies of the growth of the now-industrialized countries in which these modern sciences have developed, in an exponential way during the present century, overlook the above-mentioned specific conditions of this development (very different from the ones faced today by poor countries) and the fact that each country or region has its own specific set of questions. They have, in short, a universalist view of science as neutral knowledge, derived from a conception of science strongly dominated by ideas derived from late nineteenth-century western positivism.

Although this position was questioned by quite a few philosophers of science, starting in the late 1950s, the decision makers in scientific research of poor countries still continue, by and large, working along this implicit line of thought. The main characteristic of this position is the conception that, science being objective and neutral, the cultural and social conditions under which knowledge is created

are completely irrelevant to scientific developments as such. This view that all that is needed is more financial resources was clearly demonstrated during the 1979 UNCSTED Conference in which no reference was made to the "context of discovery."

Such universalist views are convenient to maintain insofar as they strengthen the domination by rich countries of poorer ones, by the masters of their followers and disciples, by one social class of other classes. Thus, the followers — countries or scientists — who behave according to the norms set by the masters are rewarded: for the countries through economic and military "aid and protection," for the scientists through the complex international system of research and travel grants, publications in scientific journals, contributions to international congresses, and consultancies.

The international system of rewards for those who conform to the norm bypasses those who are deviant, because the latter threaten the status quo. They are also those who are potentially creative, precisely because they break away from the existing rules.

3. In view of what has been said above, the problem of whether or not science (or the sciences) is "objective" and "neutral" is far from being a purely academic question. Its study concerns not only a historically based epistemological analysis but also an equally strong component coming from the sociology of knowledge. It is also directly linked with one of the central issues related to "development": cultural dependency.

The potentially creative deviants — supported by no one — should be encouraged by the UN University. In addition the University should aim at sensitizing all scientists to the relativity of knowledge, to the historical, social, economic, and cultural circumstances of the creation of knowledge, to the often erratic way of its production, and to its "dark side" (the hermetic and alchemic inspirations of Newton), erased from the linear, clean, rationalized, cumulative, and dominant history of sciences. Research on research should aim at demonstrating

that to define what is the specific set of questions that is relevant and important to each specific situation is the first task of scientific investigation. Scientists from poor countries very often avoid formulating these questions by going to work in rich countries.

It is hoped that, through this process of sensitization, the self-confidence of scientists of the Third World, both in natural sciences and in social sciences, will be increased in such a way that their creativity will be fully released and they will be able to formulate within the particular cultural, social, and economic circumstances of their own societies the relevant questions which might lead to finding better paths of action.

4. It is proposed that the UN University becomes a "seat of learning" (or research centre) in matters related to conceptual frameworks and methods in science and technology (both the natural and the social sciences) with particular reference to:
 - a. The epistemological and historical bases (both explicit and implicit) of current scientific practices, and alternatives thereto.
 - b. The evolution of science within the context of historically changing patterns in socio-economic structures.
 - c. The interactions between the so-called "basic sciences" and technological developments throughout history.
 - d. The assumed objectivity of scientific knowledge and the ideological elements in the development of the particular sciences.
 - e. The interactions between natural sciences and social sciences.
 - f. The status, role, and validity of vernacular knowledge versus "official" science and the ways and means to release people's creativity.
 - g. The implications of the preceding studies for the analysis of:
 - problems of scientific and technological dependency in the modern world,
 - the possibility of independent scientific and technological policies in developing countries,
 - alternative approaches in the education of future scientists and technologists, and

-- appropriate methodologies to approach the actual problems of "development."

5. The above suggestions are not intended to be either mutually independent or comprehensive. They are merely indicative of the kind of studies to be undertaken. UNRISD, for instance, could help the UN University to develop the activities outlined above by first organizing seminars and research around the problems of the interdisciplinary method encountered in the systems approach of the food issue. A possible name for these activities is: Creativity and Development.

These activities could contribute to shaping in a very specific manner the educational role of the University, which is now both weak and conventional at the same time (e.g., training of fellows in nutrition). The report on the UN University's meeting on education for development (IDS, Sussex University, 12-25 September 1979) states:

If development, as was stressed by several participants, is defined as a process leading to the release of the creative energies of all social groups, development is education, education is development. In that case the identification of the obstacles to the release of creative potential is of the utmost importance if the UN University wants to initiate a useful programme on education for development.

At the international level "modern science in its present form is based on paradigms generated in western societies, and its basic values, models, and exemplars are therefore naturally western . . . [The] dissatisfaction with western-centred paradigms encourages the creation of new scientific trends in the non-western countries. Scientists of different disciplines and cultures try to create paradigms more relevant to their socio-cultural realities. They try to rediscover the non-western endogenous scientific traditions to use them as a source of inspiration in paradigm-building."¹⁴

The international scientific community is, however, organized in such a way that it is extremely difficult for scientists at the periphery to release their own creativity: to publish papers recognized as scientific by the international community, to be invited to international congresses and conferences, to be part of the scene and not left out in isolation, means a strengthening of the tendency to conform to the norm and an impairment of real creativity. This tendency is reinforced by the weakness of the R & D system in the Third World.

The UN University is in a position to play a unique role in revealing the nature of these above-mentioned obstacles, in particular by a critical analysis of the historical conditions of production of existing knowledge. Such historical and epistemological research should help scientists at the periphery to better resist the tendency to conform to the norms of the centre and therefore to be more self-confident in their own creativity. The UN University should therefore play very actively the role described by K. Mushakoji as a "chaotic role"¹⁵ breaking the polarization of the intellectual community. It was pointed out that it is an equally important task to take stock of the people's knowledge: "The rich reservoir of popular wisdom is the best antidote against the bi-polar fixation of scientific paradigms. The encounter between the analytical logic of science and the holistic, synthetic logic of popular wisdom -- especially in the non-western world -- is bound to break the cosmos of contemporary normal science and bring an element of creative chaos into the inter-paradigmatic dialogue."¹⁶

. . . In acting as a catalyst and organizing activities in the field of education along the lines suggested, the UN University can have another time frame than the usual five- or ten-year planning period. The quantum jump that is needed to implement a really innovative programme requires, as stated above, a long-term process of identifying and overcoming the obstacles to the release of collective creativity.

If the UN University takes up the research activities outlined above, it will make, in my opinion, a unique contribution to research and education and will acquire, with an increased visibility and usefulness, a personality of its own, which is so far lacking. This will be in accordance with its being called a university, enjoying autonomy and academic freedom within the United Nations system.

ANNEX 1: THE FOOD STUDY GROUP OF THE UN UNIVERSITY GPID PROJECT

SARTAJ AZIZ participated in the FSG as a practitioner (first at FAO, then at the World Food Council, now at the International Fund for Agricultural Development - IFAD) and as such had become aware of many gaps in available research. One of the most glaring and particularly relevant to the ongoing work at IFAD is in the development of a methodology for designing projects that will benefit the poorest and most marginal social groups, something traditional agencies have been unable or unwilling to do.

There is a chance that IFAD will move closer to solving this problem, if only because it is the first large financial development institution in which the Third World countries have an important voice in the decision-making process (two-thirds of the voting power). The existence of IFAD is in itself a significant political fact in that most of the industrialized countries would have preferred that the funds now available to it were channelled through existing institutions such as the World Bank. A structure significantly different from that of the traditional agencies means that IFAD can carry out projects in countries which do not receive attention from other donors, e.g., Viet Nam. IFAD's focus is on poor groups in poor countries, and it is currently developing a set of criteria for project acceptance. It rejects any projects whose cost per hectare is so high as to be non-replicable and those where the "expert" content in man-years virtually precludes continuance after the departure of the foreigners. As Aziz puts it,

Projects implemented with a large number of foreign experts . . . lead to a large increase in recurrent costs which few developing countries can afford on a continuing basis. Rural

institutions managed by the local population, assisted by a few civil servants, will not only keep recurrent costs down, but will give a greater sense of participation of the people themselves.¹⁷

IFAD recognizes that whenever projects are designed around a physical content (e.g., increased water availability, improved marketing structures, etc.) the new services will be pre-empted by larger farmers with the result that poorer groups will find themselves worse off than before. One of the agency's major problems is that people who understand how to design non-pre-emptable projects are few and far between. Another, more serious problem is that it is impossible to reach the target group if the people composing it are not organized — which usually implies that they must be helped to organize. Such people live in disadvantaged areas and cannot initially absorb too many new inputs — without organization, the money simply will not reach them.

In an attempt to obviate these difficulties, IFAD has chosen to begin its lending programme in a limited number of "small and manageable" countries on each continent: Sri Lanka, Nepal; Mali, Somalia, Botswana; Honduras, Bolivia. Studies in these countries are now being carried out by multidisciplinary research teams. Credit based on collective security, locally managed, will be an important element of some projects; IFAD is trying to set up non-traditional institutions for handling new credit schemes. In the same way, small fishermen (in Sri Lanka) will be helped through credit to upgrade their own technologies; in Somalia mixed farming-fishing projects are planned. The aim of IFAD is to design strategies for poor groups rather than projects. It is the target group that conditions the strategy — not a project defined around some physical resource such as a river. Such projects, unlike traditional ones, do not lend themselves to "rate-of-return" accounting, which IFAD considers irrelevant to real development. Accounting will rather measure effects on the target group's income: a possible negative effect will disqualify a project.

As for research priorities, Aziz sees a need for training more people capable of designing such projects and strategies. He also encourages

work on a system of grain reserve holding among Third World countries which cannot individually withstand the onslaught of the major exporters. It is vital that we go "beyond the limited concept of an 'internationally co-ordinated system of national reserves' towards a system of internationally controlled security reserves." This should be coupled with policies for greater food self-sufficiency in developing countries. Number one priority should be the landless, chronically malnourished, who constitute in some cases 30 per cent of the population of the poorest countries (at least 750 million people). Among the mechanisms which could ensure increased help to such groups and which deserve further study are taxes on luxury items in the developed countries, to be transferred to a "food fund" for agricultural development or to institutions such as IFAD. Aziz believes that "If a sufficient number of developed countries would accept this suggestion, OPEC countries might also be persuaded to earmark a part of the future increase in petroleum prices for this purpose." The watchword for agencies dispensing these funds should be to give to countries which are themselves committed to "helping the poorest segments of their population through policies of agrarian reform and rural development."

Discussion of Aziz's Contribution to the FSG

Ponna Wignaraja asked if IFAD should not have its own research arm and if this would not help to prevent negative results of projects which, under the present structure, could only be measured when a project was already underway. Pierre Spitz also felt that IFAD's pre-investment research was too thin. Aziz replied that IFAD's Board limited the agency's mission to project lending and that the only activities financed were those leading directly to projects; but that it might be possible to fund research on the design of projects for the rural poor, or on how to monitor them. Many projects are being designed over a long period of time before implementation (up to 18 months).

Lim Teck Ghee feared that IFAD had not sufficiently divorced itself from the old "foreign expert" syndrome even if this expertise is now more enlightened and progressive, and wondered what the component of

local participation was. If too low or nonexistent, would not IFAD projects undermine self-reliance just as much as more traditional undertakings? Aziz replied that it was obviously not sufficient to give a check to the government, although IFAD's funds must necessarily transit through governments: the target group had to be identified, its capacity to absorb improvements assessed, and the group must then choose its own priorities.

On the whole, the FSG noted that IFAD is at least attempting to break new ground, although it necessarily operates under some of the constraints common to large funding agencies working through governments.

JOSEPH COLLINS is co-founder of the Institute for Food and Development Policy in San Francisco, whose work consists in discrediting popular myths about world hunger as well as the myth-makers who promote them. Following the publication of Food First: Beyond the Myth of Scarcity, one continuing focus of Collins and his colleagues has been the gap that exists between rhetoric and reality, theory and practice in major development institutions. Research at the IFDP is aimed not only at demolishing myths but at being of positive use to social-action groups which are attempting to organize around the issue of world hunger; the Institute thus also concentrates on the harmful impact of the United States' food system as well. In order to improve the research/education capacity of other groups, the IFDP has published a Resource Guide which is partly a bibliography but also a point-by-point outline following the Food First analysis, presenting the causes of hunger and the avenues towards food security.

The IFDP has published a number of other studies and pamphlets. Some of their targets include:

- Monetarist economics and the "market" as an allocator of food resources, illustrated by the case of Chile (Agrarian Reform and Counter-reform in Chile).
- The oft-cited cases of some capitalist-dependent countries which are considered to have eliminated hunger (case studies of Korea

- and Taiwan by IFDP Fellows in the field, forthcoming).
- The idea that some countries, e.g., Bangladesh, are hopeless cases and candidates for "triage" (Needless Hunger: Voices from a Bangladesh Village).
 - The idea that more development assistance is the way to eliminate hunger (Seven Myths of Aid).

Besides publishing research by its own Fellows, the IFDP tries to reach a wide audience by working with radio and television, publishing short articles in mass-circulation papers or magazines, and accepting speaking engagements. A recent example is its co-operation with a television network in exposing the activities of Castle and Cooke in Honduras. It has also produced a "Food First" slide show and will shortly publish a discussion of various specific action strategies in the handbook What Can We Do?

Travel by various Fellows to all parts of the world has put the IFDP in contact with Third World action groups working to end hunger in their countries. An informal network of such groups is being built and Institute publications are regularly translated and used by such groups.

From these activities, it will be evident that the IFDP's concern is to make research directly available as a basis for action. That it has been successful is attested by the fact that a major multilateral funding agency has apparently formed an "anti-IFDP task-force" — a development the Institute sees as an admission of its impact, as well as an indication that it should continue along the same lines.

Among future IFDP projects are a long-term study of "Food First" countries: "a critical study of the successes and difficulties of countries and groups working for food security. This project will focus particularly on how popular initiative and democratic local decision making can be combined with regional and national planning." Countries to be studied include China, Mozambique, Angola, Guinea-Bissau, Laos, India, Sri Lanka, North Korea, Jamaica, Cuba, Viet Nam,

Dominica, Somalia, Tanzania, the Soviet Union, and Eastern Europe.

Collins believes that a priority task in the United States and other industrialized countries is to break down the popular and near-automatic approval of aid as it is proposed by the major lending agencies. In any event, concentration on "aid" tends to mask the far greater impact government policies have as a whole on Third World countries. A set of critical tools should be developed for helping people to ask aid agencies the right questions. Well-meaning church groups and humanists tend to have "knee-jerk" reactions when aid agencies couch their appeals for funds in the right language, and must be helped to cut through this language. These critical tools could become a formal training programme for the disbursing officers of charitable agencies. He also sees a need for much more critical evaluation of food-aid agencies in the field (CARE, ICS, etc.); on projects of the regional Development Banks; on the general impact of food aid and on the specific activities of specific TNCs in the production and marketing of specific Third World crops.

LOUIS-FRANCOIS FLERI's paper for the MIT meeting, "A Preliminary Response to the Issues Paper of the GPID Food Study Group," criticized the Issues Paper for paying insufficient attention to problems of demography, nutrition per se, especially of children under five, health as an aspect of the food and nutrition system, and the ecology of food/nutrition dynamics. From this viewpoint, the July meeting was no better and left these questions largely undiscussed. The group did, however, attempt to come to terms with the questions he posed in the section entitled "The Politics of Research," i.e., "What is research? Who does it? Who commissions it? For what? To serve whose purposes and interests?" Some answers to these questions have already been laid out. Fléri also observes in his paper that "Training [cannot] really be separated from the existing stock of knowledge and the research which shaped it. Therefore, training which is the medium for disseminating the existing stock of knowledge is itself not an independent, value-free activity and [can] serve any ideology."

Fléri also puts the basic dilemma succinctly when he asks "How does research enter into reality?" given that nearly all research is part of a "closed system." In this system, the commissioners and the users of scholarship are the same people — i.e., those who are, like the state or private enterprise, able to finance programmes which serve their interests — while research is never commissioned directly by those who are supposedly to be its beneficiaries. The closed system also implies that access to findings is limited and that the commissioners keep control over intermediary channels of dissemination, e.g., training, technical assistance, technology transfer. He is thus wary of the institutionalization in any large body of research, "however well conceived, having learned from experience how projects can be reduced, diluted, or deflected from their original purpose when it comes to putting them into practice."

In a letter to the convenor, Fléri remarks that

the best way to enter into reality is simply to go there. To participate in that reality, i.e., to understand it, is much more difficult. The famous "dialogue" between the "expert" and the village community is now fashionable in international circles; this "dialogue" . . . though it will soon be institutionalized in new-look seminars and conferences is inaudible in the little-visited countryside of underdeveloped countries. And yet it must be encouraged by the only means that has proved effective: political mobilization of the people. This is quite a different matter and seems to me totally beyond the scope of institutions like the UN University.

In his paper "Research and Development Process: Relevance to Rural Health Studies in Asia" (UNAPDI, Bangkok, mimeo, 1978), Fléri contrasts the "paratroopers" approach to research, i.e., when the city team descends in force upon a village; and the "anthropological" approach. With the first method, there are bound to be distortions in supposedly "objective" measurements. Specifically, he notes of one study carried out in Bangladesh,

Either the villagers would see in the [study] a possibility to improve their lot and would tend to exaggerate their poverty in order to maximize gifts that might ensue, or they would feel hurt in their pride that a team of "urban white collars"

would come into their house and inquire about their daily "intake" and, out of sheer dignity, they would put up a bright front so as to give the best possible impression about the wholesomeness of their diet.

From this and other studies, he concludes that "The basic, classic principle of 'neutral' observation leaving the investigation field 'unperturbed' is clearly self-defeating." The only studies which yield pertinent and dependable results are those that last at least a year (so as to take into account seasonal variations) and which determine the relations of power between classes and the factors that condition them (e.g., in Bangladesh the pressures of the rich through giving or withholding employment, credit, mortgages, etc.; and the vertical structures which influence relations of power: the state, local politics, co-operative systems, the official credit system, distribution of inputs, etc.).

The number of studies of health and nutrition that encompass the socio-economic dimensions of the problem is distressingly small. One comparative study of two Mexican villages showed that the morbidity rate was significantly higher in the more "developed" village — i.e., the one that had passed from a subsistence economy to a monetary, cash-cropping economy where formerly self-provisioning peasants had become wage workers. Morbidity could also be clearly correlated with the position occupied in the socio-economic hierarchy. But most health/nutrition studies do not examine class/power relations and thus guarantee distorted results.

Fléri suggests work on the "nutritional translation" of processes at work in the larger food system: e.g., studies of changes in diet patterns over the last 20 years or so.

Such an exercise could help to illustrate how socio-economic processes have eliminated locally available and necessary nutrient intakes . . . and how they have affected and changed the food culture and practices of the country under study.

Social scientists and nutritionists working together could build a set of indicators for new goals and processes of development, in nutritional terms. Why should not a counter-methodology of national accounting be presented in nutritional

terms (or in energy/conversion terms) as an alternative to the classical framework of indicators? The exercise would not be a rhetorical one. It could throw light on the nutritional aspects of development and serve as an empirical basis for the integration of nutrition in general planning. It could also pave the way for a theory of malnutrition and underdevelopment.

It might also be useful to make an inventory of relevant participatory research carried out in the food/poverty problématique which could be disseminated as a handbook (and perhaps put into the hands of decision makers).

SUSAN GEORGE is convenor and rapporteur of the Food Study Group. Such tasks are obviously not meant to be undertaken by women, for in French a "rapporteur" is someone who prepares a report, whereas in the feminine a "rapporteuse" is a tale-bearer, usually malicious. In the light of this linguistic information, she wishes to express her particular thanks to the FSG for its confidence in her.

George's home institution, the Institute for Policy Studies/Trans-national Institute (Washington, D.C., and Amsterdam) hopes to develop over the next three or four years, under her direction, a research project on the United States' food system and its interface with the food systems of selected countries; the latter part of the project is in co-operation with UNRISD's Food Systems and Society Project (see UNRISD in this annex).

The methodology will be specifically geared to the concerns of social activist "food groups" in the US who are trying to make the US food system more responsive to the needs of both farmers and consumers and less in thrall to agribusiness. The Third World component of the study will attempt to detail the various interventions of American economic and political actors in foreign food systems and their generally successful efforts to orient these systems towards the satisfaction of US needs — either as markets for industrial products and processes or as suppliers of agricultural raw materials and processed foods. It is

hoped that social and political activists in these countries will also be able to use the data developed for their own purposes; the requirements of these groups, insofar as they can be known, should contribute to designating the topics chosen for research. This project is still in the design stage, but has been provisionally approved by IPS/TNI.

She suggested that training institutions might concentrate on training a corps of evaluators capable of judging projects presented to Third World countries by bilateral or multilateral development agencies, transnational corporations, etc. At present, most projects are presented as finished packages and accepted by governments which do not always possess the necessary critical apparatus for faulting them. A trained corps should possess the technical tools necessary for confronting on their own ground project designers who claim they will "reach" the poor. They should be particularly armed with a set of criteria which would guarantee greater participation and social justice — or serve as a basis for rejecting the project altogether.

George also suggested research on the reasons small farmers in poor countries may choose to cultivate cash crops over food crops. Outside of the necessity to pay taxes and purchase essentials, some recent work has shown that the farmer who realizes he has no chance, given his limited land, of becoming self-provisioning year-round gambles on a good price for a cash crop in hopes that the proceeds may enable him to buy enough food to make it through the year. Curves for cash-crop vs. food-crop land allocation are U-shaped, with as high a proportion of cash-crop allocation among the smallest farmers as among the largest. Farmers who have the wherewithal to be self-provisioning tend to plant fewer cash crops, at least in the small sample that has been studied. More work could be done on this question as well as investigation into the guarantees ("tiding-over" credit or similar insurance schemes) that could be given small farmers in order to bias their economic decisions more heavily towards feeding themselves and their families, in the context of national food self-reliance policies.

A major project, which could only be carried out by an institution

committed to a long-term funding effort, would be the establishment of a research clearing-house to process requests from both First and Third World scholars and social activists and eventually determine priority areas for co-operation between them. Third World groups often need to know how their countries fit into larger structures (e.g., Malaysian or Thai smallholders could benefit from knowledge of the major rubber companies' current strategies), whereas groups trying to mould public opinion in developed countries in more positive directions need facts about the real impact of particular World Bank or transnational corporation projects in the Third World. A clearing-house, according to requests received, could commission small, ad hoc projects on both sides, while at the same time developing a network of progressive "like-minded" researchers. This would be a step towards solving the dilemma that confronts the FSG and similar groups, i.e., usefully linking macro- and micro-levels of scholarship.

LIM TECK GHEE was one of the few FSG participants who, although associated with a university, spends much of his time working with grass-roots groups. He particularly stressed that in a research situation, the people should generate their own data. The use of western methodology and questionnaires leads to falsification and distortion, whereas, when people understand the usefulness of a project, they will produce data of high quality. Such participation in research, besides enabling people to state their problems in a more forceful way, could also act as a catalyst in conscientizing and organizing people to confront the structures which stand in the way of their development.

He also emphasized that funding agencies and academic institutions should abandon their top-down approach and aid peoples' action/research projects. An all-too-rare case in point was the Asian Regional Small Fishermen's Workshop sponsored by the Asian Cultural Forum on Development (ACFOD) with which Lim works, aided also by other NGOs and the FAO. At this workshop, held in May 1978, ten small fishermen from five Asian countries were able to meet for a week,

identify common problems, and draft a manifesto. The participants had been selected by their own communities during the preparatory process which was organized by local ACFOD branches and went on for several months. They were accompanied by local ACFOD representatives, who also helped as interpreters, using FAO's translation equipment. The total cost was a paltry \$6,000; one tangible result is that they have been able, at least temporarily, to halt the implementation of the FAO/CIDA South China Sea Fisheries Programme which all the participants saw as immensely destructive to the interests and livelihood of small Asian fishermen. They are being marginalized even faster than small peasants by the encroachments of high-technology, capital-intensive fishing enterprises exploiting their traditional waters. The average age of the ACFOD workshop participants was 44, their average educational level grade IV and their expertise was drawn from an average 24 years' fishing experience. A lack of formal education did not prevent their manifesto on "Aquarian Reform" (also containing recommendations for governments) from reflecting a deep knowledge of economic and social trends which they have gained from bitter experience.

All the FSG participants agreed that research and training institutions should seek to imitate this kind of work, allowing representatives of jeopardized groups such as small farmers, pastoralists, or fishermen to meet together nationally or regionally to plan for their own survival. This would, of course, threaten the hegemony of expertise, authority, and sovereignty exercised by the official development Establishment — another good reason for supporting such work. "Conventional international workshops have been meetings of bureaucrats and technocrats on small farmers or fishermen. This workshop was a meeting of small fishermen themselves on — among many other things — their own bureaucrats and technocrats."¹⁸

Lim is particularly concerned at the constraints placed on grass-roots workers in countries where the government discourages any kind of meaningful political activity and tries to keep its own monopoly over development initiatives. He suggests a review of the "political spaces" that exist even in repressive countries' structures: in some

countries, for example, it might be possible to work through social organizations which can reach farmers, fishermen, housewives, school-children, and students, etc. These kinds of organizations used as an entry point for conscientization might be a useful modus operandi for other researchers trying to work at the grass-roots level in other countries.

Free trade zones are another area which should attract research attention. They are a recent and important phenomenon, especially in Asia. Among other harmful effects, they may disrupt family relations because most of their employees are women (whose husbands may be unemployed). Another participant pointed out that free trade zones mostly employ young girls between 15 and 25 years old. They come from the rural areas and must, especially in the burgeoning electronics industry, work long hours (e.g., 2,800 per year in Korea as opposed to a legal limit of 1,800 in Western Europe) using microscopes. After eight or ten years, they are worn out and are dismissed to return to the rural areas, making room for a new wave of exploitable young women. In other words, the peasantry in poor Asian countries is furnishing the labour army and paying all its costs for foreign industry, outside of a brief productive period.

PAPA KANE spent 12 years as Director of the Ecole d'Economie Appliquée in Senegal, where his role was to train "change-agents." Their role, in turn, is to help the population develop its own capacity to produce food and to become more efficient in satisfying food and other needs. Between 1963 and 1978, 600 professionals were trained, and an essential part of their education was to spend several months each year with a peasant family (in a different region from the student's own home) in order to learn firsthand the problems they encounter. Kane has recently become director of all adult education in Senegal where he intends to stress education in and for the rural sector and contacts with other African training institutions. Here again, on-site training will be stressed (the ILO is supporting this programme).

He stressed, however, that this work all takes place in a broader context which is one of a country desperate for foreign exchange and which consequently devotes more than half its arable land to ground-nuts. A number of cash-cropping schemes have been imposed on peasants who have reacted either with active or with passive resistance. Perhaps the best a training programme can achieve is to enable peasants to deal with government planners and local bureaucrats on a better-informed and more equal footing.

Similarly, Kane felt that IFAD has not recognized that governments will not let their own citizens touch socially sensitive areas (e.g., peasant organizations for satisfying their own needs, not the government's) much less outsiders. Thus Aziz's goal of "organizing the target group" before dispensing money through the government seemed to him unrealistic. The same holds true for industrialized countries' non-governmental organizations which hope to by-pass the local bureaucracy. Thus a realistic assessment of government constraints is a necessary prelude to any project design.

In Third World countries, adult education and training institutions (including the one directed by Kane) are concerned with minorities — sometimes very small ones: e.g., in Senegal, only about 200,000 people out of a population of 5.5 million hold a salaried job in the public or the private sector. Thus one of the tasks of an adult training programme is to question its own role in the society in order to make itself more sensitive to the needs of the overall population.

Kane noted that in the earliest post-colonial phase the dominant educational system of the industrialized countries tended to select the brightest students in the Third World for training in the US, France, or England. The most famous example is perhaps the Indonesian "Berkeley Boys" (later joined by the "Chicago Boys" in Chile and other Latin American countries). This strategy has been so successful that it is no longer necessary to go to the expense of large training programmes inside the rich countries. Third World universities are "now producing Berkeley Boys themselves." The main problem is to

determine who is in a position to decide what the educational system will be and see if some of these persons might become vectors of change. In no historical process have intellectuals ever been the sole agents of change, but one should not neglect their role in promoting evolution -- or even revolution -- since no society is static.

(The FSG regrets that there is not only a dominant model in agriculture and research but also a dominant language in which to discuss them, spoken by practitioners and dissidents alike. Papa Kane's full participation in the meeting was somewhat hampered because he does not feel comfortable expressing himself in English. One task for English-speaking scholars, besides research, is to learn other people's languages.)

ADOLFO MASCARENHAS has been since 1971 Director of the Bureau of Research and Land Use Planning (BRALUP) in Tanzania. He introduced a food-research component into BRALUP's work early in his tenure after discovering that the authorities did not really know what people ate in different parts of the country and thus had no basis for designing a national food policy. BRALUP now works in six main areas: historical research on food habits and adjustment to famine; the nutritional status of various groups; the role of women in food production and the impact of male out-migration; the impact of drought, especially on national policy and on food aid; education, i.e., effectively placing the results of food research in village classrooms through village teachers; and the nature and quantity of the food surplus, e.g., the "official" surplus as opposed to the real one.

BRALUP would like to have more institutional linkages both inside and outside Tanzania and suffers from a familiar frustration often cited in the FSG: the lack of impact of university-based research on national policy. Originally, all of BRALUP's staff was foreign. Now, out of 15 people, nine are Tanzanian, but there is still a recognizable dependency on outside inputs (most of the Tanzanian staff is foreign-trained). Mascarenhas noted how difficult it is for national

institutions with limited staff and budgets to compete for the interest and time of decision-makers in the government, with the result that academics often talk only to other academics. Institutions such as the World Bank and UNDP take priority with planners and sometimes can virtually name their own candidates to important positions in the development hierarchy. Many "aid" agencies are wasting time (their own and that of local researchers) in asking what are the "real problems" of the Third World — a question to which they already know the answers. He suggests, as part of a "guerrilla tactics," that outside researchers countersign research actually done by local scholars — such foreign support might well assure their work of a much wider and more attentive audience.

Mascarenhas also made the following suggestions for future research.

1. Food shortages existed before bilateral and multilateral aid was invented. But agencies dispensing this aid usually find an entry point for intervention in food-scarcity areas; they then proceed to other parts of the country where self-sufficiency has been the rule, inducing dependency and thus corrupting these areas as well. One should study the areas where shortages were traditionally frequent and understand what the responses to shortage were. Could these responses be upgraded from the tribal/village level to the regional/national level? Conversely, what are the variables that made other areas traditionally self-sufficient? If they are no longer so, what has changed? The role of women cultivators is especially important in this connection: in Tanzania, their time constraints for fetching fuel or water have probably increased and they no longer have the help of their older children since school has become compulsory (a good thing in itself). Furthermore, most agricultural extension agents are men, and there are cultural taboos on women cultivators coming into contact with them.

2. Documentation of soil erosion and other environmental costs of the dominant agricultural model in the industrialized countries would be useful to Third World scholars, who are a minority in their countries,

for proving to their own governments that a multi-cropping system is actually the most efficient.

3. Problems of scale have not been studied enough: e.g., in irrigation, should one aim for small-scale, garden irrigation or large dams? Differences of scale will have important effects on village communities.

D.D. NARULA is Director of the Indian Council for Social Science Research. Some of ICSSR's general concerns are the following.

1. To make formal/informal networks between ICSSR and other scholars and institutions, including universities and voluntary social action groups (VSAGs) for seeking development alternatives. Over the next four years, 16 new institutes will be set up in areas where social-science research has been weak; each is expected to work in an interdisciplinary way and to link with VSAGs in the area.

2. To undertake analysis and evaluation of experiments in non-formal education, or experiments in the framework of the national adult education government programme. Special attention to be given to teacher training and to the study of university social-science curricula, teaching methods, and courses. To carry on continuous dialogue with students' and teachers' associations, progressive political groups, women's or youth organizations.

3. To promote research on transnational corporations (especially agribusiness/food firms) operating in India.

4. To catalogue innovative research on food problems and on attempts of the poor to assert and organize themselves.

Narula underlined the importance of regional studies, particularly as they exemplify varying degrees of self-reliance or dependency. For example, in co-operation with UNRISD, the ICSSR is seeking to determine the reasons for East India's development lag in spite of its favourable

water situation. Research on the determinants of national and international investment policies is also relevant (northwest India has drained a disproportionate amount of investment). On such questions, ICSSR will take an historical perspective, beginning with British investments and development policy in India. The Council has also identified regions where both the economy in general and the production of certain crops are stagnant and has sponsored studies carried out jointly by agronomists and social scientists to discover the links between food and the rest of the economy. ICSSR has also published a great deal of district-level data disaggregated according to social status and, in general, tries to concentrate on the people who are left out of the development process and on what might be done to integrate them. The Council funds a great many small, low-cost studies in preference to large programmes. Narula also insisted on the important task of demystifying the image of transnational corporations, which most planners still see as important sources of investment, technology transfer, etc. One recent study in India has shown, for example, that TNGs are net losers of foreign exchange and that they "invest" little but rather raise most of their capital from local savings. They have successfully "escaped the net of anti-monopoly legislation" and "indulge in transfer pricing practices and exports [from] India to their associates abroad [at] 20-25 per cent below the cost of production in India." This kind of factual research can be extremely valuable, especially in the first stages of trying to re-orient government policy decisions.

Narula sees as necessary topics for research:

1. The role of TNCs in food systems (ICSSR will be doing this in India) and the role of multilateral agencies in food aid; also the latter's impact on national food production and policies.
2. Work on the impact of "modernization" on women (their status is usually downgraded by so-called "modernization").
3. More fine-tuned work on the impact of the Green Revolution. Even among progressive scholars in India there are differences of opinion on the social polarization it has caused, insofar as some small farmers do have access to better inputs, hire out water or

other services from large farmers, etc.

He finds a hopeful sign in the general sense of frustration felt by the Indian social-science community with the existing university system. Pressure engendered by this frustration has led to the creation of the 16 new institutes mentioned above. The latter should be linked to VSAGs in order to obtain a continuous feedback from the grass roots. Pierre Spitz interjected a note of caution on this point, saying that the development and the Indian government recognition of VSAGs had sparked a good deal of outside interest. Several VSAGs are consequently now being financed by foreigners, including the major US foundations. One must therefore maintain a sceptical attitude to the kind of feedback one receives when it comes from dubious sources.

DR. RAHMAT U. QURESHI is a nutritionist with considerable experience in Africa and now working with the FAO in Asia. He was present at the first FSG meeting and at MIT; he also attended the July meeting. Dr. Qureshi does not consider nutrition strictly speaking as a "health" problem (the context in which nutrition was largely discussed at MIT) nor as a by-product of improved agricultural production. Nutrition is a development issue in that it either leads to development or measures it (or the lack of it).

Unfortunately, neither the medical nor the social-science curricula in the Third World have, up to now, contributed to a broader perspective on nutrition. For this reason, Dr. Qureshi is examining nutrition curricula in some Asian countries to assess their relevance, if any, to development problems.

Dr. Qureshi himself sees nutrition as an entry point — one which will generally be accepted by governments, for who can be against better nutrition? Because they are apparently "neutral," nutrition programmes can become the spearhead for overall development programmes. The project he has designed for the FAO ("An Integrated Nutrition Improvement Programme in the Village" — NIP) is now underway in the

Philippines (six villages), Indonesia (three villages), and Thailand (four villages). It is aimed at improving "the nutritional status of the rural poor with total community participation." Subsidiary goals are "to improve production and productivity; increase vocational and farming skills; reduce morbidity and mortality through improved personal hygiene and environmental sanitation; increase consumption of nutritious food; create new skills and more jobs; increase income; evolve a self-reliant community." Implementation of the project is phased and a very complete set of social indicators is provided for measurement of progress. Dr. Qureshi counters the frequent objection that such results may be obtained at the village level but are not replicable nationally by noting that people are to be left free to develop their own solutions to a great many problems. For example, the objective "clean water" does not necessarily need to be equated with "providing water piped in from a central supply." The objective could be realized in any number of ways, managed by the people themselves. One activity generally leads to another, e.g., cleaning up the village means collection of waste which can then be transformed for fertilizer or used in bio-gas production.

One of the chief problems he sees in "people-oriented" projects is that they do not give immediately quantifiable results and thus do not appeal much to ministers and other bureaucrats — who are sometimes themselves judged on such measured results. For the same reasons, they are rarely seen as "bankable" by the lending agencies which prefer to encourage export crops that will provide a decent rate of return.

FILOMINA STEADY spoke on behalf of the Association of African Women for Research and Development (AAWORD) and outlined the research programme designed by this group of African women scholars. Only a fraction of this programme is as yet operational. AAWORD was founded in 1977 by ten women concerned because African reality has been externally defined and analysed. The group's first two meetings were sponsored by the Swedish development-research co-operation agency SAREC. AAWORD's aim is to contribute to the "decolonization of research" on Africa and will

concentrate not only on economic problems — the focus of most research — but also place emphasis on culture, psychology, religion/ritual, and law/custom.

The group seeks to combat a double distortion in present social-science research on Africa which (1) developed in a colonialist context that has been internalized and is now transmitted in African education. The fragmenting of educational disciplines reflects an effective fragmenting of social reality, whereas what is needed is integration of African reality, starting with an historical perspective. It has also (2) effectively excluded women through this imported ideology/methodology. But Steady also noted in this connection that studies on women have become fashionable in the dominant research Establishment and that African women risk "becoming the guinea pigs of the century." It is up to African scholars themselves to develop new perspectives on their own continent. While recognizing that there were exploitative relations between men and women before colonialism, the latter exacerbated them, just as it increased class conflicts.

Although AAWORD has four distinct working groups, we shall limit ourselves here to the subjects for research defined by the group on rural development. Topics to be examined, as summarized by Steady, are as follows.

1. Agriculture. Impact of agrarian reform on women as producers. Impact of land development and farm mechanization on the division of labour between men and women. Women's access to land, credit, and extension services. Surveys of village technology requirements, availability, and their use by women. Women's time allocation for farms and non-farm productive activities. Women's decision-making on the farm in the context of decision-making and power relations between the sexes and classes. Types of production techniques used by women and their effectiveness. Survey of women's organizations and groups in rural development. Impact of agri-business and multinational corporations on women's role in production.

2. Food, Nutrition, and Health. The politics of food aid and the impact of food aid on local food habits. Imported baby-food products and their impact on infant- and child-feeding patterns; relevance of local foods for infant feeding. Women's time allocation to socio-economic work; how this constrains their ability to feed themselves and their families. Analysis of food habits, including food sharing. Women's resource management in the light of scarcity. Evaluation of "traditional" and "modern" maternal- and child-health programmes, and family-planning programmes, in order to highlight their ideology of development. Food storage and processing facilities, especially at the village level.

3. Participation of Women in Rural Development Institutions. Participation of women as individuals or groups in (1) co-operative societies, (2) development and planning committees. Mechanisms by which women seek to influence rural development policies. Women's participation in the political process and its relevance for their effectiveness in rural development institutions.

4. Population Movements, Particularly Migration. Impact of male migration on women and the family. Patterns of female migration to urban and rural development centres. Population policy implications for women.

5. Education and Training. Women's access to technical training, e.g., use of new production techniques and technology. The role of literacy in improving women's skills. Effectiveness and need for women extension workers. Training of women in skills for alternative sources of cash in rural areas, especially with respect to handicraft development or marketing of agricultural products. Evaluation of work done by women in non-monetized sectors of the rural areas as an index of their contribution to the national economy. Evaluation of impact of foreign development projects and foreign aid on women.

Steady thinks more work is needed at the conceptual level, insofar as there are useful theories to deal with primary contradictions such as

social class, but less satisfactory ones for secondary contradictions such as sex. She also says,

There is an urgent need for research on women's access to education and training. A critical examination of educational documents could be undertaken to see to what extent education and training are accessible to women on an equal basis to men. There is also a need to study women's groups as potential avenues for non-formal education and conscientization. Some forms of indigenous education may define power relationships in ways that can be more effectively used to analyse the existing power structures and their relation to problems of food shortage. There is a need for research on the indigenous knowledge stock, both as an educational resource and as a tool for conscientization. Particular attention should be given to an analysis of ritual and the role of food in various forms of ritual expression.

UNITED NATIONS RESEARCH INSTITUTE FOR SOCIAL DEVELOPMENT (UNRISD). The Food Study Group was very pleased to welcome Laurence Wilhelm and Alemayehu Bessabih of UNRISD as observers at this meeting.

Under the leadership of Pierre Spitz, both are working in the Food Systems and Society Project; Ms. Wilhelm on the Sahel and Mr. Bessabih on Ethiopia. A short description of this project follows; a detailed document is available from UNRISD of which the following is an extract.

FOOD SYSTEMS AND SOCIETY

Why, in a world of plenty, do many millions of peasants, landless labourers and urban workers suffer from hunger and malnutrition? Why do famines still occur? What factors contribute to the rapid deterioration of traditional peasant economies and push millions of people off the land into urban slums each year? What can be done?

Food Systems and Society is a project designed to find answers to such questions. Studies will be carried out in three groups of countries:

1. In countries where malnutrition is still endemic for a large sector of the population, the research intends:
 - to identify the internal and external obstacles to the achievement of adequate food security for all social groups and individuals in all seasons and years;
 - to analyse the changes in policies and institutions required to overcome these obstacles;
 - to suggest ways of bringing about some of these changes.

2. In countries where malnutrition practically disappeared following World War II, the research aims to identify how these changes came about, what lessons can be learned from the present organization of food production and distribution at different levels, what food problems remain or are emerging, and what can be done about them.

3. In industrialized countries, the research primarily aims at analysing the impacts of their food systems on those of poorer countries.

Integrated Analysis

Collaboration is sought from ecologists, agronomists, social anthropologists, economists, political scientists, geographers, historians, nutritionists, demographers, and many others. The aim is not a compilation of specialized knowledge but an integrated analysis of the complex technical, ecological and institutional relationships controlling production, distribution, and consumption of food at local, national, and international levels.

This is why UNRISD has adopted a "systems approach." Emphasis is put on the structure and functioning of food systems and sub-systems. Special attention will be given to periods of crisis, such as famines, which reveal more clearly than "normal" periods their structural relationships and their vulnerability or resilience.

PONNA WIGNARAJA has been both theoretician and practitioner of development research at the grass-roots level. In order to summarize his assessment of the role of the outsider in village level development, we can best quote from his paper, "From the Village to the Global Order: Elements in a Conceptual Framework."¹⁹

Typically Asian villages do not represent homogeneous economic and social entities. The relationships [between those living in them] have a "prism" effect . . . which distorts any purely technical thrust, because the unequal social and political relationships tend to reproduce themselves. Without first understanding the basic contradictions in society — the dominance/dependence relations — the power of the dominant to bring about a crisis of immediate survival for the poor, the divisions among the poor themselves, the inhibitions of the poor from taking economic, social, political initiatives for improving their lives, etc. — no feasible strategy can be formulated. This is the very first step in project designing.

Basically, under these conditions, any strategy to reach the rural poor or any other oppressed group has to begin by bringing about unity among the poor. Unity among the poor and

a spirit of co-operation cannot be legislated into being. Disunity among the poor arises from asymmetrical dependency relationships that tie the poor individually to the rich; . . . [this] dependency on the rich has to be reduced by giving them independent staying power in a conflict-ridden social environment.

The variety and complexity of dependency relations can be better appreciated when one divides categories like "rich" into landlords, moneylenders, traders, bureaucrats, etc.; and "poor" into men, women, landless or other types of peasants, youth, caste or religious group members, etc. To break out of the vicious circle of dependency, the first activity should be to unite the target group and set in motion an upward spiral of co-operative activities which will increase not only unity but also consciousness and power. People's minds and actions must be aroused at the same time.

A concrete example of this process is provided by the Bhoomi Sena movement in Maharashtra state, India, where Wignaraja participated with three other Asian researchers and a vanguard of an oppressed tribal group (adivasis) where the latter established countervailing political power through a struggle involving mobilization, conscientization, and organization of the poor.²⁰

The people's perception of their own predicament was combined, through participatory research, with the input of the outside scholars, creating new knowledge and confirming that the "methodology of conventional social science research is unable to obtain the perceptions of those people whose life and struggle is researched." The Bhoomi Sena area, dominated by feudal landlords, had already been the scene of three separate interventions — by the Communist Party (an eruption which quickly subsided); by the Sarvodaya Movement (paternalistic, non-self-reliant); and by the Socialist Party proponents of agricultural modernization (the adivasis became pawns in a technocratic thrust based on an elitist approach).

Learning from all these experiences, the Bhoomi Sena vanguard decided to abjure any dominating intervention from outside

and to concentrate on mobilizing the people in a self-reliant manner. The issues for mobilization related to the legal rights of the adivasis: freeing of bonded labour, implementation of the minimum wage law and enforcement of traditional rights in collecting forest produce, etc. The process of mobilization was based on investigation by the people themselves of their social situation which heightened their consciousness and awareness of the rationale for action. . . . Unhampered by external domination, the adivasis . . . have thus developed . . . a new method of organizing themselves for action in a democratic and conscious manner. Bonded labour has been abolished; struggle for minimum wages is slowly succeeding, fear of the [landlords] has largely disappeared; consciousness and unity of the adivasis has been enhanced and a strong organization — Bhoomi Sena (People's Army) has been formed by the people themselves to serve as an instrument of their continuing struggle. . . . The movement is rapidly spreading throughout the adivasi belt and maturing through struggle and reflection into countervailing power.

An unresolved question in the FSG debate concerned making research results available. To what degree might any work done on local organizations become a tool in the hands of groups whose desire would be to destroy them? Wignaraja's response is that when people are weak, they need a methodology and some help in conceptualizing their own problems. The safety valve is that the research is done in collaboration with the people, so they also decide whether it should be made public or not. In the case of Bhoomi Sena, results were divulged only with the agreement of the people concerned. This may be taking a chance but, on the other hand, interest of the outside world in an ongoing action research activity can also sometimes afford a kind of protection to the struggling group.

Another of Wignaraja's concerns is with training "change agents" who understand dialogic, participatory methods as vehicles for what he calls the "reversal of the old development paradigm." The present system has been highly successful in transferring its own paradigm, goals, methodologies, etc., so one problem is to transfer new values and ways of organizing from the bottom up. An experimental scheme has been initiated in Sri Lanka where the process begins with the remoulding of potential "change agents" within the bureaucracy itself and through their intervention sets in motion a process of self-

reliant development in selected Sri Lankan villages.

He also suggests collecting innovative research designs which could be published in cheap editions and used by other action-research groups and "change agents" after adaptation to local circumstances. Here again there is a possibility of the co-option of ideas and dilution of the effect, with more rhetoric than substance, but a new mobilization of the forces of social change requires taking this risk. Wignaraja points to the IFDA dossiers as "an example of a publication not only disseminating information on innovative research but also attempting to mobilize researchers themselves and to forge a network."

ANNEX 2: GPID/UNU FOOD STUDY GROUP PARTICIPANTS

a. 5-7 February 1979 at IUED, Geneva

Mr. Claude Alvares
RUSTIC, Thanem
VALPOI 403506
Goa, India

Mr. Cuauhtemoc Gonzales P.
4a, Winklerstrasse
D - 1 - Berlin - 33
Federal Republic of Germany

Mr. Russel Anderson
The International Federation of
Institutes for Advanced Studies
Ulriksdals Slott
S - 171 71, Solna, Sweden

Ms. Gretchen Klotz
Institute of Hygiene
Århus University
priv.: Heibergsgade 25, 11th
DK - 8000 Aarhus - C, Denmark

Mr. George Aseniero (Rapporteur)
GPID/UNU Project, c/o UNITAR
Palais des Nations
CH - 1211, Geneva - 10
Switzerland

Mr. David C. Pitt
University of Auckland
Department of Sociology
Private Bag, Auckland
New Zealand

Ms. Brita Brandtzæg
Central Food Technological
Research Institute
The UN University Centre
for Advanced Research
and Development
Mysore 570013, India

Mr. Rahmat Qureshi
FAO Regional Office
Maliwam Manson
Phra Atit Road
Bangkok - 2
Thailand

Mr. Ernest Feder
4a, Winklerstrasse
D - 1 - Berlin - 33
Federal Republic of Germany

Mr. Pierre Spitz
UNRISD, Palais des Nations
CH - 1211, Geneva - 10
Switzerland

Mr. Johan Galtung
GPID/UNU Project, c/o UNITAR
Palais des Nations
CH - 1211, Geneva - 10
Switzerland

Mr. Ponna Wignaraja
United Nations University
Tokyo
Japan

Ms. Susan George
42, rue du Cherche Midi
F - 75006, Paris, France

Ms. Tina Georgiadis (Observer)
IPRA Food Group
priv.: Waffenplatzstrasse 80
CH - 8002, Zurich, Switzerland

b. 8-10 July 1979 at UNRISD, Geneva

Mr. George Aseniero
GPID/UNU Project
c/o UNITAR
Palais des Nations
CH - 1211, Geneva - 10
Switzerland

Mr. Sartaj Aziz
President, Society for Inter-
national Development
Palazzo Civiltà del Lavoro, EUR
00144 Rome, Italy

Mr. Alemayehu Bessabih
United Nations Research Inst.
for Social Development (UNRISD)
Palais des Nations
CH - 1211, Geneva - 10
Switzerland

Mr. Joseph Collins
Director, Institute for Food
and Development
2588 Mission Street
San Francisco, Ca. 94110, USA

Mr. Raghi Farvar
Centre for Ecodevelopment Studies
and Application, CENESTA
PO Box 33-109
Tehran, Iran

Mr. Louis F. Fléri
UN Asian Institute
PO Box 2-136
Bangkok, Thailand

Mr. Johan Galtung
GPID/UNU Project
c/o UNITAR, Palais des Nations
CH - 1211, Geneva - 10
Switzerland

Ms. Susan George
42, rue du Cherche Midi
F - 75006, Paris, France

Mr. Lim Teck Ghee
Centre for Policy Research
Universiti Sains Malaysia
Batu Uban, Penang, Malaysia

Mr. Papa Kane
Directeur de la Formation Per-
manente, Ministère de l'En-
seignement Supérieur
71, Avenue Peytavin
BP 11027 CD Annexe, Dakar, Senegal

Mr. Adolfo Mascarenhas
Bureau of Res. Assessment and
Land Use Planning (BRALUP)
Box 35097, Univ. of Dar-es-Salaam
Dar-es-Salaam, Tanzania

Mr. D.D. Narula
Director, Indian Council of
Social Science Research
IIPA Hostel Building
Indraprastha Estate
New Delhi 110002, India

Mr. Rahmat Qureshi
FAO Regional Office for Asia and
the Pacific
39 Phra Atit Road
Bangkok 2, Thailand

Mr. Pierre Spitz
UNRISD
Palais des Nations
CH - 1211, Geneva - 10
Switzerland

Ms. Filomina Steady
African Studies Center, Boston
University, 10 Lenox Street
Brookline, Mass. 02146, USA

Mr. Ponna Wignaraja
United Nations University
Tokyo
Japan

Ms. Laurence Wilhelm
UNRISD, Palais des Nations
CH - 1211, Geneva - 10
Switzerland

NOTES

1. On this and other questions in this report, see "Toward a World without Hunger: Progress and Prospects for Completing the Unfinished Agenda of the World Food Conference," a report by the Executive Director of the World Food Council, WFC/1979/3, 23 March 1979. E.g., "To get additional food into the diets of those [hundreds of millions who are chronically hungry] involves much more than increasing food production. . . . Greater production does not ensure that the increased food available will reach large numbers of hungry and malnourished people, nor can selective programmes for nutrition intervention — useful as they are — meet the needs of large malnourished populations afflicted by a shortage of food energy or calories. . . . Basically, the main obstacle to meeting the nutritional needs of large populations is one of poverty or lack of 'effective demand.' . . . [Solutions] must be sought in development policies which increase employment for the rural landless and the urban poor and stimulate increased production by small subsistence farmers." Paras. 121, 123.
2. These two paragraphs are taken from the United Nations Research Institute for Social Development's project report Food Systems and Society with whose analysis the FSG is in full agreement. The Group wishes to draw particular attention to this study: UNRISD/78/C.14/Rev.1 (quote from p. 21).
3. Questions discussed in this section are more fully treated in the Food Study Group's Issues Paper (Susan George, Rapporteur): HSDRGPID-2/UNUP-54, United Nations University, 1979.
4. With the exception of President Nyerere's speech, the proceedings of the recent World Conference on Agrarian Reform and Rural Development (WCARRD, Rome, July 1979) were a striking example of unanimous participation in conceptual deradicalization.
5. Cf. a similar analysis in Richard Franke and Barbara Chasin, "Science versus Ethics," Science for the People, July 1975.
6. Crozier, Hungtington, Watanuki, 1975. Noam Chomsky, in Intellectuals and the State (Het Wereldvenster Baarn, the Netherlands, 1978) provides a brilliant analysis of intellectuals as "experts in legitimation" and of the institutions they serve as disseminators of the "state religion." His comment on the Trilateral study: "The crisis of democracy to which they refer arises from the fact that during the 1960s, segments of the normally quiescent masses of the population became politically mobilized

and began to press their demands, thus creating a crisis, since naturally these demands cannot be met, at least without a significant redistribution of wealth and power, which is not to be contemplated." On "value-oriented intellectuals": "Speaking of our enemies, we despise the technocratic and policy-oriented intellectuals as 'commissars' and 'apparatchiks' and honour the value-oriented intellectuals as the 'democratic dissidents.' At home, the values are reversed."

7. Ponna Wignaraja should be credited with conceptualizing the separate knowledge stocks and the perspective of new "mixes."
8. Details of a seasonal methodology can be found in Pierre Spitz, "Drought, Stocks and Social Classes," UNRISD, 1979.
9. Cf. the presentation by Elise Boulding at the MIT Workshop.
10. The interdisciplinary approach requires a different internal organization of the University, much more flexible than the present division into programmes, which, in my view, should be dissolved.
11. Joseph Needham, Science and Civilization in China (Cambridge University Press, 1954-), vol. 5, Chemistry and Chemical Technology, part 3 (1976), pp. xxv-xxvi.
12. Needham, *ibid.*, p. xxxi.
13. Needham rightly writes elsewhere: "It might be difficult to say how Michelangelo could be considered an improvement on Phidias, or Dante on Homer." We can all add to the list: musicians, poets, and painters of many different societies and times.
14. K. Mushakoji, "Scientific Revolution and Inter-paradigmatic Dialogues," UN University GPID Report Paper, 1979.
15. This concept is introduced by Mushakoji as follows: "The introduction of a third pole in a dialogical process is meant to destabilize the intellectual equilibrium which exists between two paradigms, dividing a given intellectual community into two opposing poles. The third pole is therefore not a pole of conciliation; rather it is a pole of novelty, a pole of creative chaos, which asks the two poles new questions, forcing both of them to reconsider their basic assumptions" (*ibid.*).
16. *Ibid.*
17. Sartaj Aziz, "Abolishing Hunger: The Complex Reality of Food," Third World Quarterly, 1:4, October 1979. Part of this summary is drawn from Aziz's remarks to the FSG; part is synthesized from this article by the rapporteur.
18. Details in pamphlets 1 and 2 in "The Case for Alternative Development," a kit prepared by the Asian Coalition of Non-governmental Organizations for the WCARRD Conference in Rome, Italy, 1979.
19. In Development Dialogue, Dag Hammarskjöld Foundation, Uppsala, 1977:1.
20. See "Bhoomi Sena: A Struggle for People's Power," in Development Dialogue, Uppsala, 1979:2.