A Social Ethical Analysis of Economic Strategies to Alleviate World Hunger

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ABSTRACT

A SOCIAL ETHICAL ANALYSIS OF ECONOMIC STRATEGIES
TO ALLEVIATE WORLD HUNGER
David Pfrimmer

Throughout their history, human societies have been faced with many issues. In this study, the focus will be upon the issue of hunger in less developed countries that has presently reached a critical stage that threatens human existence. Church and world leaders have all voiced concern over this issue but to date no generally effective policies have been developed that would enable the almost 600 million people who are hungry at present to enjoy a basic level of nutritional food consumption.

In this study, we will provide one framework by which an accurate diagnosis can be made of the problem that will result in appropriate prescriptions for policy to overcome this dilemma. The three existing economic strategies, which are observed as the Neo-Malthusian, Green Revolution, and New Economic Order policies, will be analysed in the light of a concept of human fulfillment that recognizes the three essential human needs for identity, growth and transcendence.

From a Christian perception of life, the Kingdom of God provides the subsoil from which human fulfillment arises. Where the three essential needs of human existence (identity, growth, and transcendence) are each addressed in such a way that fosters a balanced level of development among them, then human fulfillment occurs. Insofar as human fulfillment is promoted, the Kingdom of God is enhanced within history.

This study will show that presently the essential human needs of identity and growth are being addressed by Neo-Malthusian and Green Revolution policies. However, the need for transcendence is not currently receiving the necessary attention as evidenced by the growing level of alienation among people of the less developed countries. To the extent the Neo-Malthusian and Green Revolution policies are pursued with the same popularity, they will in fact serve only to increase the need for transcendence and further increase the level of alienation.

Therefore, in the name of human fulfillment, economic policies of the New Economic Order type which focus on the alleviation of alienation should now receive greater support by decision makers within and outside the Church.
A SOCIAL ETHICAL ANALYSIS OF ECONOMIC STRATEGIES TO ALLEVIATE WORLD HUNGER

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THESIS

Submitted in partial fulfilment of the requirements for a Master of Arts Degree
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INTRODUCTION:

Within recent years, many Canadians have witnessed dramatic increases in the cost of food. It is not uncommon on news broadcasts to hear that the rise in the cost of living has been precipitated by a large increase in the cost of food. Despite our complaints about the rising cost of food, we remain on the whole, well fed. While it is fashionable to speak of the 'food crisis' along with the 'energy crisis', the 'monetary crisis', and the 'Middle East crisis', the fact is that hunger and malnutrition are nothing new for many people in the world.

In November 1974, the United Nations World Food Conference was held in Rome.(1) This conference symbolized the pressing importance that the issue of 'food' had for so many people. Would the world be able to provide enough food so that everyone could eat? This was the question for which many looked to this conference to provide an answer. However, the answer was not forthcoming. Some people have characterized the conference as a failure for this reason. 'GATT-FLY', an inter-church organization, wrote,

"The World Food Conference was a failure. It failed to isolate and attack the fundamental structural causes of hunger and malnutrition. It failed as an occasion for cooperation between the industrialized countries and the petroleum exporting countries in order to alleviate the effects of the economic crisis on the most seriously affected countries. It failed to resolve the long standing complaints of the developing countries in the field of trade. It even failed to come up with an emergency plan for food aid to cover the crucial first half of 1975 when as many as ten million people could die of starvation."(2)
The end result appeared only to point to our inability to eliminate hunger.

However, the World Food Conference did bring into sharp relief an ever present modern reality. It became clear that the modern world more than ever before, could be characterized by two basic types of countries; the rich and the poor. The rich countries could be described generally as "developed" (DCs) and well fed. The poor countries are "less developed" (LDCs) and do not on the whole enjoy even a basic level of nutrition to sustain the lives of the general population.

HUNGER AS A CONDITION:

Certainly hunger is a major concern facing all of humanity today. The Christian churches have been actively concerned about the plight of those who are unable to feed themselves. An inter-church research group, Ten Days for World Development, pointed out the cause for this concern in their 1979 tabloid distributed throughout the country. Of the four billion inhabitants on this tiny planet, seventy million are "severely malnourished" and at least five hundred million are chronically malnourished.(3) Nick Eberstadt of the Harvard Centre for the Study of Population has summarized the situation this way,

"When we put the proportion of poor and hungry of the world in a historical perspective, we can prove that things have never been better. But if we choose to compare the number of people who could be well fed with the number of people who are well fed, we can also prove that things have never been worse."(4)
What Eberstadt is pointing out is that hunger is a major concern for many people today. For North Americans and Europeans, hunger is a foreign experience. A very practical question is therefore, "What does it mean to be hungry?"

In the second half of this paper we will give a more precise and detailed description of the conditions facing these "hungry" people in LDCs. Chapter 5 will seek to give a description of the physical symptoms of hunger as well as the broader understanding of hunger as a human condition. The ultimate aim of this section will be to describe the relationship between nutritional hunger, which is typified by the common pictures of starving children on television, and hunger as estrangement, which are the deeply rooted conditions that perpetuate the present dilemma.

Therefore in Chapter 5 we will describe what it means to be hungry! It will provide a context for our discussions. We will try to highlight the important phases of this reality. It will, to be sure, not exhaust the research done in this area. However, it will give the reader some insight into the ways in which hunger manifests itself.

This will certainly not provide all the insight necessary to answer the basic question raised here; "If we are able, why then, are not the hungry people fed?" In order to answer this question, we need to look at the policies that address this
POLICIES:

Historically, there have been three basic groups of policies that have been advocated to help alleviate the gap between the rich and the poor, the hungry and the well fed. Neo-Malthusian policies (see Chapter 6) have called for reducing population growth so as to reduce the demand on food resources and thereby to make more food available to the reduced population. The Green Revolution policies (see Chapter 7) are concerned with the growth of the economy. They have tried to increase the available food supply via increased production. The third group of policies, New Economic Order policies (see Chapter 8), have attempted to change the fundamental vision and values of a society to allow for greater participation in self-sufficient food production and consumption. Of course in practice nations have adapted these approaches to fit their particular situations. Nevertheless, these three groups of policies do represent the fundamental alternative approaches strategists have taken in tackling the food crisis.

John Kenneth Galbraith has recognized these three groupings in his observations into the root causes for "underdevelopment". In the Massey lectures which he delivered in 1965, which were later published in the book entitled The Underdeveloped Country,
Galbraith observed three models by which to diagnose the cause of underdevelopment in an LDC. In the first model, which he terms the "Sub-Sahara African Model", Galbraith maintains that policies should be directed at increasing education and helping to foster an "identity" for the LDC's people. He maintains in Model II, the "Latin American Model", that policies should serve to provide for "...effective economic incentives ..." and allow for greater participation in the process of economic growth. The "South Asia Model", Model III, requires policies that focus on "...reproportioning the factors of production..." to allow for conventional economic growth.

In our study we will look at these basic models as they apply beyond the geographical limitations Galbraith employed for his lectures. Model I, the "Sub-Sahara African Model", in our analysis will deal with the whole body of Neo-Malthusian policies which seek to provide an opportunity for the development of a cultural identity. Galbraith sees the threat to this group of countries as "disintegration". He writes,

"This disintegration, not Communism for which these countries are as little prepared as for capitalism, is the form of failure in this model." It is the threat of disintegration that Neo-Malthusian policies address. Model III, the "South Asia Model", we will refer to within the body of Green Revolution policies which emphasize a more efficient use of the factors of production. Model II, the
"Latin American Model", will be included among the body of New Economic Order policies which seek to transform the social structure and allow for greater public participation.

Each of these policies has been pursued at some time in various contexts. However, each of these policies when pursued on its own has been unable to overcome the impasse of hunger. Inevitably they encounter obstacles which they are incapable of surmounting. What are these obstacles?

THE OBSTACLES:

In developing these models of underdevelopment, Galbraith based his conclusions on an observation of the particular obstacles unique to each of these three situations. Underdevelopment is a term that refers to many problems in LDCs such as industrialization. However, underdevelopment also involves problems of food production, consumption, and distribution as well as nutrition and therefore is important in analysing the impasse of hunger.

The primary obstacle in Model I is the lack of a minimum cultural base.(10) Education among the population is limited and likewise there are a limited number of professional people. One result is the apparent absence of capable people to even manage the affairs of governing the country. The obstacle in Model III is the "...bad proportioning of the factors of production."(11)
The obstacle to economic growth in this model according to Galbraith, probably best conforms to the conventional explanations of the economists.(12) These countries have a greater capacity to absorb capital resulting in increased economic growth. Here there is a cultural base upon which to build a productive economy, but there is an absence of the means by which to efficiently employ the various factors of production. In Model II, there is an adequate cultural base as well, and even a considerable amount of savings to be invested, but the obstacle is the social structure.(13) In this case there is an inequitable distribution of power. Most countries in this category have a sizable "non-functioning elite" of very well-to-do doctors, lawyers, businessmen, and politicians which have disenfranchised the general population and left them no part to play in the process of development.(14)

In our study, we will observe these obstacles operative on a broader level. Their origin can be traced to the basic process of living! It is not surprising, therefore, to see them emerge in Galbraith's discussion since they have been present potentially as basic threats to human life from the very beginning of human existence. When we observe life, we will see that the absence of an "identity" is the result of the threat of disintegration. Disintegration is the combination of all those forces that seek to destroy the identity of both
individuals and groups. It is observable, particularly in groups, by the level of cohesiveness of the group, the sense of vocational conciousness, and the quality of leadership (see Chapter 3). The symptoms that Galbraith describes in Model I are therefore a part of the broader threat of disintegration on all levels of life.

In Model III Galbraith has identified the major obstacle to development as the inability to efficiently employ the factors of production. In our analysis we will see this as a part of the broader threat of stagnation. Stagnation is simply the absence of growth. In a complex form in our modern world, it may be typified by those groups that are unable to keep up with the pace of the many changes that are altering our world. The threat of stagnation inhibits people from reaching out and encountering the world in new and meaningful ways. This is observable in groups when their societal facility is limited, their functional adequacy is not sufficient for growth, and there is limited compliance within the group to the process of economic growth (see Chapter 3). What Galbraith diagnoses as a "...bad proportioning of the factors of production..." is another manifestation of stagnation which impedes a society from moving beyond its' present boundries.

In Model II, the obstacle to development, according to Galbraith, is the "social structure." The general population
does not feel a sense of participation in the future of the country. The obstacle of the social structure is seen in this analysis as a part of the broader threat of alienation. Alienation is the sense of powerlessness felt in controlling one's future. Galbraith points out in this model that any policy of "stabilization" often serves only to enrich the 'status quo' at the expense of the proletariat. (15) Very simply stated, the rich get rich and the poor get poorer. The threat of alienation is observable in groups where there is limited creative interaction within the society, a restricted sense of group participation in the decisions affecting the future direction of the society, and a lack of a sense of mutual responsibility (see Chapter 3). The press in Model II is to overcome the obstacle of alienation which seeks to prevent people from participating in the creation of their future.

If these are the major threats to human existence and the present obstacles to overcoming the problem of underdevelopment, they are also present as obstacles to overcoming the impasse of hunger due to relationship between underdevelopment and the food crisis. In order to understand these major threats to human existence, we must understand in some way the process of life itself. Disintegration, stagnation, and alienation are all essential parts of the process of life from its earliest beginnings. In some way we have to articulate a picture of how
life is experienced. Therefore, we now turn our attention to the basic elements which compose our lived experience.

AN ANTHROPOLOGY: THE BASIC ELEMENTS OF THE LIFE EXPERIENCE:

In the first three chapters of this study, an attempt will be made to illustrate one way of describing the experience of living. The works of George Mead, Gibson Winter, and Paul Tillich will be called upon to aid in this description. This is certainly not the only way to view the life process. However, this conception of life can give a powerful perspective through which we can diagnose the hunger problem. Thus, in this section we will be testing whether the theories of George Mead, Gibson Winter and Paul Tillich provide a fruitful basis for understanding the various approaches to the issue of world hunger.

In Chapter 1 George Mead's model will be discussed where he characterizes human life as a "lived encounter". This basic model was later reformulated by Gibson Winter and expanded to portray the basis of life as the "We-relation". Stemming from this perception of human life, three elements of the life process emerge: identity growth, and transcendence. In Chapter 2 the work of Paul Tillich will serve as the basis for a more detailed description of each of these elements. His theological investigations will help in understanding in more precise detail
the role of identity, growth, and transcendence in the life process.

In the third chapter, these three elements will be discussed in terms of how they apply to life in groups or societies. That is, individuals and societies organize their life together around predominantly one of these elements at any particular time. As the group perceives the threat to their existence to be either disintegration, stagnation, or alienation, they respond by emphasizing the affirmative element that addresses that threat; identity, growth, or transcendence. The element emphasized at a particular time, leads to an overall perspective by which life in its entirety is perceived. Therefore, given the three essential threats to human life (disintegration, stagnation, and alienation), there are three resultant perspectives which seek to address these threats. Given this analysis, it can be ascertained that based upon these three perspectives and what is viewed by decision makers to be the most pressing need that policies and actions are pursued. Consequently, depending upon which threat is perceived as the most important, there evolves three perceptions of the exact nature of the hunger problem and correspondingly, three groups of policies to overcome the problem. People who employ Neo-Malthusian policies see the most important threat to be addressed as disintegration and place an emphasis on identity. People who employ Green Revolution
policies see the most pressing threat as stagnation and therefore, emphasize growth. People who employ New Economic Order policies see the most pressing threat as alienation and therefore emphasize transcendence and its vision.

As was mentioned earlier, each of these policy approaches has been pursued at some time in various contexts and has been unable by itself to overcome the hunger crisis. The reason for this impasse can be seen if one examines the life process. Disintegration, stagnation, and alienation are all essential and inter-dependent parts of the world hunger problem because they each correspond to an essential need in the life process; the need for identity, the need for growth, the need for transcendence. In order that the impasse of hunger can be overcome, some over-arching strategic framework must be employed which can reconcile these three existing human needs, their perceptions of life, and the policy approaches they foster. It is in an understanding of human fulfillment, based on Paul Tillich's theology, Gibson Winter's social ethics, and George Mead's social theory, that such an over-arching framework can be found.

THE ROLE OF HUMAN FULFILLMENT:

In assessing the quality of life, people speak of life as either fulfilled or unfulfilled. The desire to lead a fulfilling
life is certainly the aim of most people and particularly in our modern times with affluent expectations. It is an easily observable desire. There are many prescriptions today that suggest various ways to discover a fulfilling life style. It would appear that each of the three affirmative elements of the "lived encounter" contributes equally to the attainment of human fulfillment.

Human fulfillment occurs when each of the essential needs of the life process are addressed so as to foster a balanced level of development among them. From a Christian theological point of view, there is support for the human desire to lead a fulfilling life. When Christians pray "...Thy Kingdom come on earth as it is in heaven...", it is their hope that God's promise of a fulfilling life will be realized in this life as well as the next. In so far as the essential needs of human life are addressed in history and human fulfillment is fostered, the Kingdom of God is enhanced. Therefore, as each of these policy approaches addresses a particular threat to human fulfillment, either disintegration, stagnation, or alienation, it correspondingly embodies an affirmation which serves to address and is a criteria to measure the level of human fulfillment.

One of the most characteristic features of human life is 'change'. Life has a very dynamic quality. The environment in which human beings live is constantly changing. Human actions
are continually endeavoring to establish some equilibrium in affirming the elements of identity, growth, and transcendence against the threats of disintegration, stagnation, and alienation found within life. Given the changing nature of life, the danger is that one of the three affirmative elements will attempt to increase its' position at the expense of the other two. Some have suggested that this is the case with the Soviet Union and the United States. For example in the Soviet Union there has been such a strong concern for growth, that individual rights and liberties may have to be sacrificed in order to achieve the needed growth. Or correspondingly in the United States, there exists such a strong concern for individual identity that a society may ignore a large minority group who are alienated from the vision of the nation. When such a disequilibrium exists due to the domination of one of these three elements (identity, growth, or transcendence), people in the name of human fulfillment are called on to re-establish the balance and/or redress the imbalance in the three basic life drives.

Paul Tillich gives us some insight into the problem when one element is dominant at the the expense of the other two. He writes,

"If one element of this structure is developed in isolation and put in control over the others, not only the whole structure is distorted, but the special element itself loses its power and meaning." (19)
Therefore, failure to give full attention to one of these elements, leads to injustice in that dimension of life and results ultimately in an overall condition of injustice. Thus, human fulfillment occurs when each of these three needs of the life process are addressed in such a way as to foster a balanced level of development among them. Chapter 4 will take a closer look at this process.

Of the three policy approaches presented (the Neo-Malthusian, the Green Revolution, and the New Economic Order types), the first two have received predominant support from decision makers. They have successfully addressed the essential threats of disintegration and stagnation in their policies to overcome the impasse of hunger. Yet human fulfillment is being undermined by the rising tide of alienation which remains largely unaddressed by present policy makers. Therefore, in the name of human fulfillment, economic policies which focus on the alleviation of the threat of alienation should now receive the greatest emphasis by decision makers within and outside the church. In particular, New Economic Order policies should be encouraged to enable people, particularly in the LDCs, to feel they have some control of their future. In Chapters 6, 7 and 8, there will be a more detailed description and appraisal of each of these policy approaches. In Chapter 9 some specific strategies will be outlined that should therefore be pursued by decision makers.
A SUMMARY OF THE ARGUMENT;

WHEREAS;

1. World hunger has been, is now, and will continue to be an issue among world leaders within and outside the church;

2. In history there have been three basic economic strategies proposed and employed to address the problem of world hunger -
   a) Neo-Malthusian
   b) Green Revolution
   c) New Economic Order;

3. Each of the above strategies focuses on a different dimension of the world hunger problem -
   a) Disintegration
   b) Stagnation
   c) Alienation;

4. Disintegration, stagnation and alienation are all essential and interdependent parts of the world hunger problem because they correspond to an essential need in the life process -
   a) Integration
   b) Growth
   c) Transcendence;

5. Human fulfillment occurs when each of the essential dimensions or needs of the life process are addressed so as to foster a balanced level of development among them;

6. The Kingdom of God is enhanced to the degree to which human fulfillment is promoted in history;

7. The Neo-Malthusian and Green Revolution economic strategies have received the predominant support among decision makers in recent years, to the point that human fulfillment is being undermined by the increasing level of alienation that remains unaddressed;

THEREFORE:

1. In the name of human fulfillment, economic policies which focus on the alleviation of alienation should now receive greater emphasis by decision makers within and outside the church (i.e. strategies for a New Economic Order);

2. These policies should be aimed at increasing the levels of
   a) creative interaction
   b) group participation
   c) the sense of mutual responsibility.
FOOTNOTES FOR INTRODUCTION;

1 "Reflections on the World Food Conference", a GATT-Fly publication.

2 Ibid., p.2.

3 Ten Days for World Development Tabloid, 1979, p.3.

4 Ibid.


6 Ibid., p.36.

7 Ibid., p.27.

8 Ibid., p.43.

9 Ibid., p.25.

10 Ibid., p.37

11 Ibid., p.44.

12 Ibid., p.33.

13 Ibid.

14 Ibid., p.39.

15 Ibid.

16 The primary references for this material are taken from Gibson Winter's Element for a Social Ethic and Paul Tillich's Systematic Theology Three Volumes in One.

17 Winter, Gibson, Element for a Social Ethic, p.108.

18 Ibid., p.109.

In this chapter, we will describe briefly the human condition. The human condition is essentially activity which involves three dimensions: identity, growth, and transcendence. In describing the human condition and human activity, we will employ firstly George Mead's model of the 'lived encounter' and secondly, Gibson Winter's reformulation emphasizing the underlying interrelatedness of this encounter which illustrate the nature of human existence and provide a foundation for the three dimensions of identity, growth and transcendence.

The Human Condition:

Man is a self, conscious and intentional. Gibson Winter has spoken of man as "embodied consciousness". (1) This is a fundamental starting point for our understanding of man. Experience points to three essential facts about man; the existence of a self, the self is conscious that is to say, it thinks and engages in activity, and there exists by implication an "other" if merely in the form of a context for the self. This leads us to understand existence as a conscious interaction between the "self" and the "other". (a loose category which will be illumined shortly)
The human condition or "selfhood" has been described as "viva activa" or simply activity. Activity in this context does not simply mean action, although action is a part of the whole dimension of activity. Activity means in this context purposefulness or intentionality. It involves both reason and emotion. Paul Tillich has aptly described intentionality or this sense of purposefulness as that which,

"...means being related to meaningful structures, living in universals, grasping and shaping reality....Man's dynamics, his creative vitality, is not undirected, chaotic, self-contained activity. It is directed, formed; it transcends itself toward meaningful contents."(2)

The "self" thereby exists with the "other" rather than in isolation and the "self" engages the "other" through intentionality.

George Mead's 'Lived Encounter';

This "self-other" distinction leads us to a basic understanding of the life process or the "lived-encounter". It may be helpful at this point to look at George Mead's portrayal of the "lived-encounter".(3)
In this diagram, Figure 1-1, we see how the "self", through a gesture of communication, expresses himself to the "other", who in turn, responds, based upon his interpretation of the gesture, and the response in turn, is interpreted by the "self" which helps him to understand his original gesture. This whole process we might refer to as the "life process" since it represents the dynamics that are apparent in our life, we as "selves" encountering "others". This "life process" illumines three elements that affect the very existence of the individual self. Firstly, there is GROWTH in this process. The "meaning-intended"
the 'meaning-recieved' as well as the interaction of the two
"selves" leads to alteration of both "selves". Some encounters
may not be pleasant but it broadens the basis of our experience
and judgement. Secondly, there is a sense of centredness or
identity produced. This results from the fact that the self is
engaged in the purpose for which it was intended, namely
activity. This is even more accentuated, since the "self" has
gained a new perspective on its own nature, that of the "other".
Thus thirdly, through his encounter with the "other", he sees
himself from outside himself, or simply put, he transcends
himself. To a certain extent a self can achieve this on its own.
We have all had the experience of standing outside ourselves and
observing ourselves. This experience is greatly enhanced when we
encounter an "other" who helps us to see who we are. Thus the
"self" is not static but is dynamic and changes as the conditions
of the "lived-encounter" change.

From our analysis, it is apparent that the individual
intentional self is related inherently to other selves (the
"other"). This is not merely coincidental, but in fact springs
from the essential foundations of selfhood. The "intentional
self" becomes the "social self" in its participation with the
"other". Simply stated, man is a social being! It should be
remembered that the "social self" is based upon the "intentional
self". Man's original constitution or design carries an inherent
press toward an encounter with the "other". This, as we have seen, is man's nature, as opposed to something that merely benefits man's nature. The old saying, "No man is an island", is essentially a very true statement.

Gibson Winter's Reformulation of the 'We-Relation';

Gibson Winter believed that Mead's scheme did not emphasize the underlying "inter-relatedness" of persons within the 'lived encounter'.(4) Thus, Winter reformulated Mead's scheme to reflect this primordial inter-relatedness with an emphasis on the principle of "unification", where through the "empathetic sharing" (gesture and interpretive response), man comes to consciousness of his sociality (the recognition of the "WE") and there is the simultaneous emergence of identity.
Mead's schema is thus reformulated as follows in Figure 1-2.

![Diagram showing the relationship between "SELF" and "OTHER"](image)

"SELF" (subjective centre of relational being) \(\rightarrow\) "underlying relatedness" \(\rightarrow\) "OTHER" (subjective centre of relational being)

(Dynamic) The gesture expresses the impulse to actualization of pregiven sociality through eliciting response of the other

(Form) Interpretive response actualizing pregiven sociality as meaning (arising in intimacy of shared inner process)

(Unification) Empathetic sharing in the other's interpretive response as meaning of gesture, coming to consciousness of sociality (unification of self and other as "we"), and simultaneous emergence of identity (self-consciousness as the unification of gesturing self and expressed meaning in intentionality) (5)

FIGURE 1-2 GIBSON WINTER'S REFORMULATION OF THE "WE RELATION"

Thus in the "WE-relation", we can see three important thrusts of the self; (A) the impulse to confirmation of being, (B) the impulse to meaning through symbolization, and (C) the impulse to understand the values, structures, and process of the encounter itself. (6) This is a product of the "lived-encounter". As Winter writes,

"...self and symbolization are interdependent expressions of creativity (dynamics) and shared meanings (forms) which emerge as the coming to consciousness in the sociality in evolution." (7)
Therefore, according to the Mead-Winter scheme, life is the activity of the 'lived encounter' or more precisely the 'We-Relation'. Man's activity has been described as intentional consciousness which presses for actualization. The dialectical movement of the self-other leads to three apparent elements of the encounter; the 'gesture', the 'response', and the 'interpretation'. Thus, we see in the 'We-Relation' the corresponding elements of identity, growth, and transcendence. Using Tillich's categories, we shall refer to these elements as self-integration, self-creativity, and self-transcendence. These then, are the essential elements of the life process.

In Chapter 1 we have tried to very briefly describe the basic elements of the life process. From the Mead-Winter model of the 'lived encounter', we can see the evolution of identity, growth, and transcendence. As these elements combine they constitute what is referred to as the 'human condition'. These elements will play an important part later in this discussion. They are set out now as the foundation for our analysis. In Chapter 2 a more detailed explanation will be presented.
FOOTNOTES FOR CHAPTER 1

1 Winter, G. Elements of a Social Ethic, p.108.


3 Winter, G., Ibid., p.91.

4 Ibid.

5 Ibid., p.101.

6 Ibid., p.191.

7 Ibid., p.105.
CHAPTER 2 THE THREE ELEMENTS OF THE 'WE-RELATION'

In this chapter, we will describe the three elements of identity, growth, and transcendence. We will employ Paul Tillich's categories of self-integration, self-creativity, and self-transcendence in our descriptions of the three elements since they emphasize the ontological foundation of the self-other relationship. In the final section of this chapter, we will point to the inter-relatedness of these three elements based upon the underlying inter-relatedness of the 'We-Relation' from which they have been derived.

Identity;

Self-integration is the establishment of a centre for the identity. This centredness finds its basis upon the fact that the self is life! The self is actually and potentially. That is simply to say, man is and man is becoming.(1) Centredness focuses upon the core of man's identity. It could be compared to a geometric point which is indivisible. It is a unified centre. Man can create new dimensions to his centre. His identity can develop new accents which are stripped away and replaced in the encounter. Thus within self-integration there exists an element of growth and decay. As well, there is also an element of transcendence in self-integration in that, as a result of the "lived encounter", the self becomes conscious of its' centre. In the words of Tillich,
"Man becomes man in personal encounters. Only by meeting a Thou (the "Other") does man realize that he is an ego (a centre). No natural object within the whole universe can do this to him."(2)

The understanding of integration also implies disintegration. As we have said, the centre cannot be diminished, but it can be destroyed. Thus there is a continuous struggle of the self between integration and disintegration, or between life and death. In the "lived-encounter" the "other" presses for a recognition of itself as a centred self. Simply put, self-integration engenders the basic affirmation of the mutuality of selfhood or personhood in the "lived-encounter".

Growth:

Self-creativity (or self-alteration) involves the process of actualization through growth. The centred self can create new centres. The "lived-encounter" develops new "selves" which are then engaged in the life process. Self-creativity is thus, "...the ability of the self not only to exist in an environment but to transcend that environment, shaping and developing it through culture by way of imagination, thought, and action."(3) This process of growth also implies a conscious raising of the self's perception of its' centre. Thus creativity here, is not totally new, since it is creation based on elements of the old, resulting from the context of creativity, which in this case is the "lived-encounter".
This understanding of growth resultant from self-creation, also embodies the element of destruction. Just as a self can create new centres, so too, it can destroy existing centres. When two selves encounter each other, the encounter can enhance the situation by improving the perception of the "centredness" of each self in an act of creation or it can reduce their comprehension of their centredness and thus their identity. As well, the creation of a new centre increases the dynamics of the "lived-encounter" and thus the possibilities for creation and destruction. As Tillich writes,

"...self-integration constitutes the individual being in its centredness; self-creation gives the dynamic impulse which drives life from one centred-state to another under the principle of growth." (4)

Thus disintegration destroys the centre of life, while destruction destroys the dynamic of the centre!

Transcendence;

The third essential function of the life process is self-transcendence, where the press is to go beyond the limitations of the "lived encounter". Here, creativity is creativity in an absolute sense, since it is grounded in original creation. It injects the essentially new into the "lived-encounter". In self-integration and self-creativity, the element of transcendence is present but always within the finite context of the "We-relation". In this case self-transcendence is
the bearer of the infinite into the finite.

"...self-transcendence reflects a creativity which, as it is grounded in the unity of meaning, breaks through particular historical forms, transforming them and giving them signifigance that transcends their historical ambiguities."(5)

Self-transcendence provides a 'newness' to the "We-relation". It is not merely the creation of new centres out of the "lived-encounter" of two selves. It is not merely the bringing to consciousness, new dimensions of a self's centre. Rather, it is the introduction into the "lived-encounter" of a totally new centre.

Paul Tillich writes of this function,

"It is self-transcendence because life is not transcended by something that is not life. Life, by its very nature as life, is both in itself and above itself, and this situation is manifest in the function of self-transcendence."(6)

This points to a fundamental ambiguity. There exists, because of self-transcendence, an implicit separation or alienation of self from self, self from the other, and self and the infinite ground of being. For example we can see this separation between an actually centred self and the ultimate totally centred self. Therefore, the self presses for a reunion or reuniting of actual self with potential self, self and other, and the finite of the "lived-encounter" with the infinite ground of life.
Thus, the process of articulation (intentionality) comes together in the life process itself, characterized by self-integration and the principle of centredness, self-creativity and the principle of growth, and self-transcendence with the principle of reunion of the separated. Each element recognizes an implicit problem in the "lived-encounter"; self-integration, the disintegration of the centre; self-creativity, the destruction of the dynamic; and self-transcendence, separation or alienation.

Implicit in what we have said regarding these three basic elements of the life process, is a fundamental unity. That is to say, that each element is separate and unique, but at the same time within it there are dimensions of the other two elements. For example in self-creation, where new centres are generated, self-integration comes into play with its focus on centredness. Thus in each element of the life process, which exist uniquely, the one element dominates with the other two in a supporting role.

This chapter has provided a more detailed description of the three affirmative elements of identity or more precisely self-integration, growth or self-creativity, transcendence or self-transcendence. One may ask how relevant are these detailed descriptions to the study of the hunger impasse? Certainly this is a crucial and valid question. Each of these three affirmative
elements provides a necessary requirement for human fulfillment. More will be said regarding human fulfillment in Chapter 4. It should be pointed out here, however, that if life is worth the effort of living, it is determined by the way in which these elements are organized. In this chapter then, the basis is established for an understanding of human fulfillment. It will be that understanding of human fulfillment that enables decision makers to choose effective policies. To this point our discussion has remained largely on the level of individuals. Before discussing human fulfillment per se, it will be necessary to observe these three elements of identity, growth and transcendence as they apply to groups.
FOOTNOTES FOR CHAPTER 2

1 This point is expanded in Tillich's book, The Courage to Be, and in Gregory Baum's Man Becoming.

2 Tillich, Paul, Love, Power, and Justice, p.78

3 Crossman, R., p.226.


5 Ibid., p.229.

CHAPTER 3 THE ELEMENTS OF THE "LIVED ENCOUNTER" AS APPLIED TO GROUPS

It is plain to see how these elements of the life process are operative with respect to individuals. However, our focus in this study must address particularly how these elements relate to groups as they attempt to choose programs of action to alleviate the cancer of starvation in the world. Individual existence occurs against the back-drop of the community or group. Group existence is distinct from individual existence. Thus in addressing the ethical implications of particular economic policies to alleviate hunger, it is essential to understand how the principles of the life process (self-integration, self-creativity, and self-transcendence) relate to the dynamics of groups or societies and by what characteristics they are measurable of the success or failure of a particular action.

In this chapter, we will discuss the characteristics by which the three elements of the 'lived encounter' are observable in groups. These three elements ultimately generate three different perspectives of reality which we will describe as an ethic of survival, an ethic of conformity, and an ethic of ultimate reality. In the final section of this chapter we will discuss the nature of the social 'ethical quest' which involves the choice between the alternatives of each perspective to move man closer to fulfillment.
Self-Integration in Groups;

Unlike individuals, groups do not possess an identifiable centre of their own. The centredness of a group or society is symbolized in the multiple centres of the leaders, who manifest not only their own centres as individuals, but the centredness of the group as well. Thus, when we speak of self-integration in terms of society, we see it as embodied in those of the ruling group. In viewing the economic dynamics of culture, we can observe the self integration of the group in three concrete characteristics; (a) group cohesiveness, (b) vocational consciousness and (c) the quality of leadership. (1) In relation to the first characteristic, group cohesiveness is the enthusiastic support for the essential forms of the culture. "That is, the community must be seen by its members to be an integral part of their social identity." (2) There must exist a feeling of belonging to a society or group. Secondly, the centredness of a group is a function of the group's sense of mission. Here, the group feels that it exists to fulfill a special vocation. This vocational consciousness has been expressed in history in a number of eras; the Roman's drive to subjugate the Mediterranean world to the supremacy of Roman law, Alexandre the Great's efforts to evangelize the ancient world with Greek culture, France's vocational consciousness based upon her cultural superiority in the 1600's and 1700's, the Soviet Union's belief in the ultimate
conversion of the West to the collective system, and the 'American Dream' that expresses the vocational consciousness of North America. These are but a few examples of the vocational consciousness where the power of symbols and ideas expresses the life of a society. (3) Thirdly, the quality of leadership is a good indicator of the centredness of a society. Since good leaders should embody the centredness of the group, as well as their own centre of being, strong leadership should enhance the centredness of a community and weak leaders detract from that centredness. This in economic culture, can be seen in the establishment of a strong, or correspondingly weak, entrepreneurial class. This entrepreneurial class thus directs and stimulates the production and distribution of goods and services according to the priorities of the group.

Self-Creativity in Groups;

The principle of self-creativity (alteration) of groups or societies "...emerges through the forms by which the conservative and creative functions of growth are facilitated." (4) Growth in this context occurs within the parameters or limitations of the society. How much growth can a society withstand and maintain its centredness? There are three characteristics that illumine the answer in terms of the economic culture; societal facility, functional adequacy, and group compliance. (5) Societal facility is the degree to which there exists in a society the
structures, processes, and services that can actualize and facilitate the society's ability to grow. This may be referred to as the infrastructure for growth. For example the development of an economic system was greatly advanced with the advent of money. Transactions were made simpler and easier than in the former system of bartering. The development of 'highways' which made travel easier, led to increased trade and the growth of societies. In the second characteristic, functional adequacy, we can measure the ability of the existing structures and services for transforming freedom. More specifically, does the structure enable the society to expand the resource base, thus enabling growth. With the advent of money or coinage, peasants, who were formerly unable to purchase certain goods or services, could exchange their produce and accumulate, through saving, enough money to purchase cloth, spices, or whatever. This in turn, expanded the demand for consumer goods and likewise, the peasant's produce. Thus the quality of living was increased for both groups. The last characteristic observable in economic culture is group compliance. This characteristic is the measure of a society's ability for stable change. The structures and services must promote a sense of continuity between the past and the future. This leads a group to accept and even encourage change through growth rather than being threatened by uncontrollable change. Specifically we see this in the manner in
which economics is taught in our educational institutions. Ideological bias is implicit in understanding the system of producing and distributing goods and services. Despite the positive and negative aspects (as they are often argued among competing ideological groups), it seems that some such group compliance or general consensus on the nature of the bureaucratic forms, is necessary for the stable growth of the group.

"Every social group is a community, potentially and actually."(6) Thus, the principle of self-transcendence in societies necessitates the element of 'creative freedom' which enables the separateness of the community to be reunited. Tillich writes,

"...being in a social group is dependent upon the spirit of the community, and this means on the uniting love which creates and sustains the community."(7)

Self-Transcendence in Groups;

The three observable characteristics of the principle of self-transcendence in groups are creative interaction, group participation, and mutual responsibility.(8) In the first case, creative interaction encourages within the group equal freedom to pursue special interests or concerns with the aim of transforming the existing bureaucratic forms and structures. For example, the economic model of Adam Smith existed almost unchallenged until the Great Depression of the 1930's. Then John Maynard Keynes expanded economic theory to include increased government
participation directly in the economy. Another challenge to Smith's economic model was posed by the thinking of Karl Marx and Frederick Engels. After World War II, as multinational corporations became more prominent, additions were made to the theory to account for oligopoly competition. The capitalist model of economics today is certainly different from the classical model of Smith's *Wealth of Nations*. Thus, through creative interaction the model has undergone a substantial transformation. Group participation focuses upon the ownership members have for the activity of the society. As more members are informed concerning the structures, services and forms of society, there is a feeling of 'shared participation' in establishing the values, goals, structures, and aims of the group. This sense of participation provides the basis for voluntary service to the group or society. Recently the "Buy Canadian" program illustrated this point. People would voluntarily pay more for a particular product simply because it was produced in Canada. In economic terms, it was like a referendum which by the number of Canadian products consumed were like votes expressing confidence and commitment to the Canadian economic system. The members of this society felt they could participate directly in the system, both as consumers and producers. The last observable characteristic of the principle of self-transcendence is that of mutual responsibility. There
must exist a commitment or responsibility for the resultant effects of particular social actions. This is the basis for 'sacrifice' in groups. Certain members attempt to re-establish a balance or restore the original position of those members adversely affected by a particular social action or policy. Milton Friedman gives one illustration of this sense of mutual responsibility.

"When do you suppose we had the highest level of charitable activity in this country?(re:United States) In the 19th century! That's when we had the great movement toward private non-profit hospitals. The missions abroad. The Library Movement. Even the Society for the Prevention for Cruelty to Animals. That was also the era in which the ordinary man, the low income man, achieved the greatest improvement in his standard of living and status. During that period, millions of penniless immigrants, came from abroad, with nothing but their hands, and enjoyed an enormous rise in their standard of living."(10)

This then is an attempt to re-establish some balance or restore some harmony within society. It is clear that the degree to which a society attempts to restore those adversely affected by particular decisions, reflects upon the ethical basis of that group.

Three Perspectives of Reality;

From the three perspectives of self-integration, self-creativity, and self-transcendence, we have identified the observable characteristics of each principle. Resulting from these three principles then, are three possible ethical systems depending upon which principle is dominant. As we mentioned
earlier, all three principles are essentially interrelated. Thus we have an ethic of survival, an ethic of conformity, and an ethic of ultimate reality.

The first approach stresses the survival of society. The focus is upon the centredness of the group. The ultimate criterion for actions or policies is the perpetuation of the forms, structures, and services of the existing society. The ethic of conformity utilizes as its organizing principle the element of self-creativity or growth. Here a given order is established and decisions are made which will bring the various members into line with the given order. Thus there is nothing totally new within the society. The growth that occurs is the mere rearrangement of the existing resources. Focusing on the principle of transcendence, the ethic of ultimate reality embodies creative freedom that brings really new resources to the group. Here the drive is to re-establish a relationship with the ultimate reality through the vision of the group. It is a quest to seek the "new" which exists beyond the limitations of centredness and growth. It should be emphasized that the question is not one of right or wrong with respect to these three possible approaches, but rather the question is one of the appropriate time for each approach.
The Social "Ethical Quest";

Our task here, is the 'ethical quest'. We ultimately have a choice between three perspectives or approaches. These choices indicate that this ethical quest is not pressing for a new statement or approach to personal ethics. Personal ethics is important, no doubt, but it only comprises a part of man's sociality. Our emphasis here is on social ethics; those principles with which we can grapple with the essential everyday reality of our society in our time. You may ask, "Is not social ethics not merely the actions of a number of personalities?" Although it appears so, it is not. This fallacy of composition is analogous to the biological example of the body. The body is not merely the sum of its 'parts'. No physician would agree to that, despite the fact that treatment involves just the parts. For when the body becomes truly a body, there is a dynamic or power and a singular identity that transcends the mere assembly of bones, flesh, and organs.

As individual persons, we believe in making moral decisions such as always telling the truth, never stealing, or respecting the rights and property of others. Yet underlying these types of decisions are decisions that we make concerning the appropriateness of the communities in which we live. For the most part our daily lives are lived without questioning the fundamental assumptions about our world. Society as a whole has an unwritten system of regulations by which its members abide and which normally are not challenged except in unusual situations.
Historically, societies at a more primordial level, had a clearly established body of rules determined by tradition. These rules were then, merely applied, but hardly ever questioned. Those times in which radical questions were asked concerning these rules, have been characterized as paramount events in history. For example the Reformation questioned the nature of authority. The French Revolution questioned the role of the monarchial system. Social ethics in the context of these relatively stable societies (I use this term loosely!) served to illuminate the 'rules' more clearly. R.H. Tawney illustrates this point in his discussion of the Roman Catholic Church's execution of the Usury Laws up to the sixteenth century. The church officials simply interpreted the traditional rules in the light of the societal context of business.(11) In this situation the basic "ethos" is never questioned. The 'rules' are merely interpreted and applied!

In our modern times, we have witnessed a new and relatively unusual context for social ethics. Resulting from technological innovation and expansion as well as societal complexities, we are witnessing a period of dramatic changes such as rapid increases in mobility in short periods of time, the rapid communication of information in what now has been described as a "global village", contemporary women's liberation has affected all levels of society, as well as a renewed interest in civil rights. These
are but a few of the many changes that have affected our lives. Thus many of our established patterns of behaviour and decision making have been called into question. It is no longer the simple interpretation and application of generally accepted rules, but it also involves the creation of those rules as well. The "ethos" of the society is itself called into question! As Winter and Pitcher write,

"'Ethos' refers to the way in which symbol, myth, language, and ritual lend direction to the common life of a people. Ordinarily the ethos of a society is an unexamined reality; its power as the shaping, informing, and ordering source comes to light only when the meaning of our common life comes into questioned."(12)

Social ethics, thus, deals with our corporate life in community. Man is essentially social. In these periods where 'change' has become a characteristic of our society, social ethics is pressed into the service of (A) helping to re-create the 'ethos' of society, (B) interpreting that 'ethos' in particular circumstances and (C) proposing actions or policies which seek to fulfill the 'ethos'. Gibson Winter summarizes it this way,

"...social ethics deals with issues of social order—good, right, and ought in the organization of human communities and the shaping of public policies. Hence the subject matter of social ethics is moral rightness and goodness in the shaping of human society....Social ethics is, thus, the continuing and daily business of man in his social existence; it seeks universals but works with the realities of an historically conditioned situation."(13)
Thus, because of the relationship between man and his community, social ethical analysis has an element of dynamic inter-relatedness. Like the body, which possesses a power which is more than the mere sum of its various parts, social ethics presses for a fuller dimension that accounts for man in community. Man affects and as well, is affected by that community.

In the face of these changes, the need for ethics is felt. This 'fuller dimension' of man in community deals with human fulfillment which is of direct concern to social ethics. As Gibson Winter maintains,

"Social Ethics is, thus, the expression of ultimate commitments in the shaping of man's future, embodying man and his fulfillment in concrete recommendations for public policy."(14)

Thus this "ethical quest" in which we engage social ethical analysis, presses us toward the realization of human fulfillment.

As Chapter 3 concludes, this study is beginning to acquire more flesh on its boney beginnings. As a study in social ethics, it is crucial that some observations be made regarding groups and society. How is it that identity, growth, and transcendence are affirmed? What specific characteristics should be observed to indicate the level of these three elements are enhanced within a group or society? This chapter has helped in the process of "diagnosis"! Three specific and observable characteristics exist
within each dimension; under self-integration are the characteristics of group cohesiveness, vocational consciousness, and the quality of leadership; under self-creativity are the characteristics of societal facility, functional adequacy, and group compliance; and under self-transcendence are the characteristics of creative interaction, group participation, and mutual responsibility. Thus in this chapter, a more specific articulation has been developed in order that these characteristics may serve as the tools by which to assess the effectiveness of the policies that are presented in Chapters 6, 7, 8, and 9. The next chapter will attempt to develop an over-arching understanding of human fulfillment, which will reveal the vital linkage between the three elements of identity, growth, and transcendence.
FOOTNOTES FOR CHAPTER 3


2 Ibid.


4 Crossman, Ibid., p. 219.

5 Ibid.


7 Ibid.

8 Crossman, Ibid., p. 219.

9 For an expanded explanation of the development of present economic theory from its Neo-classical origins refer to Galbraith's Economics and the Public Purpose, pp. 11ff.


12 Pitcher and Winter, "Religious Social Ethics", p.70.

13 Winter, G., Social Ethics, p.70.

14 Ibid., p.7.
CHAPTER 4 THE NATURE OF HUMAN FULFILLMENT

We must now ask the question, "Where does the life process lead us?" Ultimately man's discussion and living lead him in a certain direction. Man is a purpose-making, purpose-seeking being. Man is a hoper! He looks forward to a future time with the expectation that his ultimate concerns will be realized. This is the time when what man actually is becomes what he potentially may be. As an intentional self and a social self, man seeks fulfillment through his activity. Hope makes tolerable the tension between "what is now" and "what should be". Man as a social self, based upon the "We-relation", has an implicit impulse to being, knowing, and meaning. This impulse leads to "ultimate horizons" of being, knowing, and meaning. (1) Total fulfillment is, thereby, understood as the realization or ultimate actualization of the three elements of the life process, namely self-integration, self-creativity, and self-transcendence, in their potentiality, overcoming their implicit ambiguities or problems. Thus history groans as it moves toward fulfillment. Hope allows us to live in the "now-but-not-yet" shadow of fulfillment. Thus Tillich writes,

"Every creative act aims at something. Its time is the time between the vision of the creative intention and the creation brought into existence. But history transcends every creative act horizontally. History is the place of all creative acts and characterizes each of them as unfulfilled in spite of the relative fulfillment. It drives beyond all
of them toward a fulfillment which is not relative and which
does not need another temporality for its
fulfillment....Historical acts by a historical group drive
toward a fulfillment which transcends every particular
creation and is considered to be the aim of historical
existence itself."(2)

The Judeo-Christian tradition speaks of this experience of
human fulfillment in symbolic language with such concepts as
"salvation" and the "Kingdom of God". Christians seek to
reconcile present reality with some ultimate reality. They
participate with God in the process of creation. Their existence
is affirmed through the life that God has given them. Throughout
the sacred texts of Judaism and Christianity, we see the
affirmation of life, the invitation to participate in the
creative process, and the ultimate call to be reconciled or
reunited with God. "Salvation" and the realization of the
"Kingdom of God" has three essential characteristics; it's social
and political, it's personal, and it's universal.(3) Tillich
defines the "Kingdom" as,

"... the unity of persons including their relationship to the
whole non-personal realm."(4)

Thus the "Kingdom of God" (or salvation which is the realization
of the 'Kingdom') provides an 'ultimate meaning' for the forces
of history.

To speak of history implies a perspective. History begins
and continues with no identifiable starting point or conceivable
end. History, the record of the "lived encounter", thus can only
be understood from the middle of history. This means that fulfillment can only be received ethically through the present historical process by which God is realizing his will, the Kingdom of God. Since the Kingdom of God is the ultimate meaning in history, it requires some identifiable symbol by which its reality can be continually renewed in history. For the Christian, Jesus as the Christ, is the central manifestation of the "Kingdom of God."

"Whatever the rhythm of manifestations of the Kingdom of God in history may be, Christianity claims to be based on its central manifestation. Therefore, it considers the appearance of Jesus as the Christ as the centre of history...."(5)

Jesus as the Christ embodies the "New Being" in the historical process. Man experiences his present situation as almost demonic. The press for ultimate horizons of being, knowing, and meaning include the dangerous possibility of non-being, unknowing, and meaninglessness. The condition the Christian tradition has referred to as "sin". Sin might also be referred to as "estrangement". Man's mere existence restricts what he may become potentially or the full realization of his essential nature. "Estrangement" denies the essence of the 'lived encounter' of centredness, growth, and transcendence and results in disintegration, stagnation, and alienation. In this regard Tillich points out that the recognition of estrangement, "...has given theology a new understanding of the demonic-tragic structures of individual and social life. The
question arising out of this experience is ... the question of a reality in which self-estrangement of our existence is overcome, a reality of reconciliation and reunion, of creativity, meaning, and hope. We shall call such a reality the New Being...."(6)

Thus, the proclamation of the Gospel is that Jesus embodies a "new reality" that allows man to overcome estrangement and be reunited with the essential basis of his being, God.

Human fulfillment may be considered the overcoming of estrangement on the negative side. On the positive side, human fulfillment is a condition where integration, creativity, and transcendence are fully operative. Given the dynamic quality of man's existence, however, it appears that estrangement continually confronts man in the form of disintegration or stagnation or alienation. Since human fulfillment includes the equal embodiment of all three of the above elements, there must be a continual attempt to establish or re-establish through public policy a balance among them. This re-establishment involves decisions on a personal and social plane. The process whereby decisions are enacted to redress an imbalance is ethics. Ethics seeks in any particular historical situation to re-establish or re-balance the three elements necessary for human fulfillment. Thus there is a "history of salvation", in so far as actions are taken, which by affirming integration over disintegration, growth over stagnation, and transcendence over alienation. Gutierrez points to this when he notes:
"There is only one human destiny, irreversibly assumed by Christ, the Lord of history. His redemptive work embraces all dimensions of existence and brings them to their fulness. The history of salvation is the very heart of human history."(7)

Thus we affirm the three basic elements of the life process seek to redress any imbalance (self-integration, self-creativity, and self-transcendence) as the ethical basis for decision making which presses toward fulfillment of the human condition. Fulfillment, thereby, occurs when the exegencies generated in these three areas (the concern for survival, the press to conformity, and the seeking of ultimate reality) are dealt with at the appropriate time with the necessary actions. When the structures and forms of society (the self-creativity constellation) can establish and maintain a harmonious balance between the social identity (the self-integration or centredness of the group) and the creative vision (the transcendent dimension of the group), then fulfillment is realized and what the group is actually is what it can be potentially. We must agree, therefore, with Dr. Crossman when he writes that,

"...historical fulfillment is enhanced as the political (or economic) context of a nation is able to maintain a balance of these foci or is changed to rectify the imbalance generated by a disproportionate actualization of one of these foci relative to the other two."(8)

These then are the tools by which Christians, as agents engaged in the activity of social ethics, can encounter the problems surrounding the present reality of world hunger.
In Chapter 4, an over-arching framework has been presented which reconciles the three essential needs of the life process; the need for identity, the need for growth, and the need for transcendence. This framework has been referred to generally as human fulfillment. As we have seen, human fulfillment occurs when each of the essential needs or dimensions of the life process are addressed in such a way as to foster a balanced level of development among them. For Christians the ultimate aim and thus, the ultimate meaning of history is the Kingdom of God. The degree to which human fulfillment is promoted in history, serves to further the realization of the Kingdom of God. Consequently, human fulfillment provides the means of holding the life process together in a meaningful way and enables people to make some judgements concerning the causes of hunger and to suggest policies to overcome the hunger impasse. Our attention now turns to a picture of what it means to be hungry.
FOOTNOTES FOR CHAPTER 4

1 Winter, G., Elements of a Social Ethic, p.107 Footnote 32. Here Winter describes John Wild's idea of "Ultimate horizons of meaning". We have broadened this concept here.


3 Ibid., p.356.


6 Ibid., Vol.I, p.49.

7 Gutierrez, G., A Theology of Liberation, p. 153.

8 Crossman, Ibid., p.221.
CHAPTER 5 THE PHENOMENON OF HUNGER

There is a tendency among many people to feel that the questions and crises that confront them in the present are somehow novel and unique. Consequently, the food crises in the minds of many people represents as well, a unique modern phenomenon. In reality however, hunger is not in anyway unique. It has been an encumberance to human fulfillment down through the history of mankind. It has only been recently that in some areas of the world man has been able to free himself from the slavery of hunger. This however, is even now, the exception, not the rule!

From the earliest times man has struggled to sustain his basic requirements for food. Nevertheless, there have been occasions when there was not enough and people faced famine or severe food shortages. The oldest document on hunger was recorded over a granite tomb at the first cataract of the Nile. The "Stele of Famine" is a record of a terrible famine during the reign of Tosorthrus, two thousand years before the birth of the Jewish patriarch Abraham. The author writes.

"I am mourning in my high throne for the vast misfortune, because the Nile flood in my time has not come for seven years. Light is the grain; there is a lack crops and all types of food. Each man has become a thief to his neighbour. They desire to hasten and cannot walk. The child cries and the youth creeps along and the old man; their souls are bowed down, their legs are bent together and drag along the ground and their hands rest in their bosoms. The
counsel of great ones at court is but emptiness. Torn open are the chests of provisions; but instead of contents there is air. Everything is exhausted." (1)

During the famine of 436BC, thousands of Romans committed suicide by drowning themselves in the Tiber River rather than starve to death.(2) Similarly, massive suicides took place in India during the famine of 1291AD.(3) There have been many reports of cannibalism in the pre-twentieth century famines in England, Scotland, Ireland, Egypt, India and China. As recently as 1921-22, cemeteries in the Soviet Union had to be guarded to prevent the stealing of freshly buried corpses.(4) The great Irish Potatoe Famine of 1846 is yet another example of severe hunger. It has been estimated that 20 percent of the population starved to death and countless others emigrated to North America (5). Thus down through man's existence, hunger has had a devastating impact.

In these affluent times hunger for the people of the developed world appears as a distant occurrence. However, we in North America would do well to remember that our recently acquired position of relative independence in the food chain is no more assured than was the economic independence of European nations prior to World War II. When Allied troops liberated the Nazi Concentration Camp of Bergen Belsen, they found thousands of people in the final stages of starvation, which they were ill-equipped to treat.(6) Only by massive United States aid, did the
Netherlands avert massive starvation during World War II (7) In 1936 only 75% of those who presented themselves for service in the German army were physically fit and by 1938 that level fell to 55%. Even in the United States, one of the best fed countries, only 15% of 14 million recruits, were really up to the standards.(8)

During the Soviet revolution an estimated 17 million people died, 12 million of starvation.(9) Later, during the farm collectivization period of the 1930's, somewhere between another 3 to 10 million starved.(10) During the civil war in Nigeria in 1969-70, thousands of Biafrans perished from the lack of food.(11) When Bangladesh achieved independence from Pakistan, massive starvation was averted only by massive food aid from India and the world community.(12) Thus throughout man's existence, hunger has been an ever present reality that has affected history and the context of the 'lived encounter'.

The Nutritional Symptoms and Physical Reality of Hunger:

What specifically are the symptoms of physical hunger? Nutritional hunger may be defined as "...the lack of the forty or so constituents to maintain health."(13) This however, only scratches the surface of the issue. Today approximately 400 million people are on the brink of starvation, while another 1 billion are hungry.(14) Thus there are two different forms of nutritional hunger; undernourishment and malnourishment.(15) In
In the first case the quantity of food is insufficient to meet the daily requirements for energy and health. In the second case, the quality of food consumed results in an inadequate diet for physical health. (16)

Undernourishment or starvation is more repulsive and dramatic in that it solicits an immediate response from those people in the affluent countries. However, malnourishment probably affects a greater number of people with a prolonged impact. The United Nations Food and Agriculture Organization (FAO) reports that,

"Only 28% of the world population had access to a calorically adequate diet - more than 2700 calories per day - while 12% consumed only 2700 to 2200 calories per day - and 60% consumed fewer than 2200 calories."

This however, does not present the whole picture since calories only express overall food requirements and can underestimate the need for selective nutritional inputs. One essential such input is protein. Protein deficiency is probably one of the most widespread dietary inadequacies. Protein is synthesized by plants and animals. Animal protein is essential to human welfare since it contains the ten basic amino acids which are instrumental to physiological growth and development. (18) Selective consumption of plants can achieve the same desirable goal. Protein deficiency results in a number of devastating effects. Appearance is worsened and organic resistance to disease is reduced resulting in greater
susceptibility to tuberculosis, hunger edemas (bloated faces and stomachs), and general retarded growth. The following table illustrates the number of people by region consuming less than the required amounts of protein. This table used data from 1970, so the picture by now has probably grown worse.

**ESTIMATED NUMBER OF PEOPLE WITH INSUFFICIENT PROTEIN/ENERGY SUPPLY BY REGIONS (1970) (19)**

<table>
<thead>
<tr>
<th>Region</th>
<th>Population (in billions)</th>
<th>Percentage Number below the lower limit (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed Regions</td>
<td>1.07</td>
<td>3</td>
</tr>
<tr>
<td>Developing Regions (excluding Asian centrally planned economies)</td>
<td>1.75</td>
<td>25</td>
</tr>
<tr>
<td>Latin America</td>
<td>0.28</td>
<td>13</td>
</tr>
<tr>
<td>Far East</td>
<td>1.02</td>
<td>30</td>
</tr>
<tr>
<td>Near East</td>
<td>0.17</td>
<td>18</td>
</tr>
<tr>
<td>Africa</td>
<td>0.28</td>
<td>25</td>
</tr>
<tr>
<td>World(excluding Asian centrally planned economies)</td>
<td>2.83</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TABLE 5-1</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As well as protein hunger, there is a hunger for the necessary vitamins and minerals. The lack of these necessary nutritional requirements results in a host of diseases. Lack of calcium results in weak bone structure. Lack of iron results in anemia. Lack of iodine results in dwarfism, goiters,
deaf-mutism, and feeblemindedness. Lack of salt results in extreme nervousness, depression, and muscular fatigue. Deficiencies in Vitamin A results in poor vision and retarded growth in children. Deficiencies in Vitamin B-1 can lead to Beriberi, which is nervousness and easy fatigue, and Pellegra, which leads to a leprosy-type skin condition. The host of diseases from the inadequate consumption of required vitamins and minerals is almost limitless. (20)

These dietary deficiencies now occur with an increasing degree of complexity. They have had a tremendous impact upon the poor segments of the hungry nations whose traditional well balanced diets have been severely reduced to mainly cereals. Characteristics that were once thought to be racial were in fact a function of the level of nutrition. For example, at one time people were convinced that Shetland ponies were a different species of horse. They were imported in great numbers to North America, and when fed improved diets, grew to be the same size as regular horses. It was also discovered that when Japanese and Chinese emigrated to North America and improved their diets, they grew larger dispelling the myth that orientals are a genetically smaller race. (21) The long range impact of the level of nutrition has indelibly marked certain peoples to the point that the scars no longer appear as scars and the marks appear as permanent characteristics and not symptoms of the disease of hunger. As Castro writes,
"The truth is that no other environmental factor acts so despotically, or leaves so deep a mark, as the factor of nutrition."(22)

Thus down through man's existence the phenomena of hunger has presented itself whenever there has been an insufficient supply of the basic nutritional factors. Hunger can be precipitated by failure in the weather or climate, or population pressures, political turmoil, economic imbalance or social upheaval. One thing will become increasingly clear, that hunger is not a natural phenomena but rather it is a man made condition. As Castro writes.

"Hunger due to the inclemency of nature is an extraordinary catastrophe, while hunger as a man-made blight is a 'normal' condition in the most varied parts of the world."(23)

Hunger as a 'man-made blight' finds its roots in the 'lived-encounter' (the WE-relation). There were no signs of hunger in the paleontological remains of early man.

"Hunger and war arrived when man had reached a stage in culture when he began to accumulate reserves and defend his collected wealth."(24)

Consequently hunger was born in the 'lived-encounter' and has presented itself down through human existence as an impediment to human fulfillment.

What is Hunger? a fuller definition;

Hunger represents "estrangement" for a large percentage of the world population. In some very real ways, it epitomizes the
demonic forces of disintegration, stagnation, and alienation. Hunger is not merely a nutritional problem although we can observe some of its symptoms nutritionally. Rather it must be understood in a broader way as a human condition which is typified by those forces that work to deny life itself! The crises of hunger affects the whole person, not just the body.

Moreover, it embodies a societal as well as a personal dimension. Hunger destroys the identity of people. We can observe this essential push to discover and to integrate their understanding of "who they are". Hunger destroys self-integration. We can observe this in societies, where the cohesiveness of the group is undermined. High infant mortality rates and high death rates indicate that the sense of having a social whole to which one belongs, is inordinately threatened by death. We can also see that vocational consciousness within the group is crippled. People are too busy simply endeavoring to physically survive to identify with the 'dreams' or social purposes projected by the leaders for their nation. Low life expectancy, high turnover in the population as indicated in the doubling time of the present population, and limited participation in national holidays (ie. Independence day) would serve to indicate the erosion of disintegration of a group's vocational consciousness. The presence of disintegration would also be reflected in the presence of weak political and economic
leadership. When governments are in power for only a short duration or when there are a preponderance of independence movements or when there are significant revolts then one might expect to find the real possibility of weak leadership. Thus hunger fosters the disintegration of peoples and societies by undermining their group's cohesiveness, impeding their group's vocational consciousness, and perpetuating weak leadership within their group. In the light of this, it is clear that one element of the solution to world hunger must be the addressing of these various levels of disintegration.

Hunger also has an impact upon the creativity or growth of a people. The lack of energy and initiative generated in a condition of nutritional inadequacy, leads to a state of stagnation. Even limited projects cannot be pursued due to the physically induced lack of motivation to move beyond one's existing conditions. Starvation and malnutrition, are thus, the entrance points to a vicious circle which inhibits the impetus for growth and fosters stagnation. Beyond this, the infrastructure for growth, what this study has called "societal facility", does not improve either. Limited increases in food production or the level of foreign cash reserves (or the power to generate them) in order to buy food and the necessary inputs or a low rate of investment in over-head capital may reflect a fundamental weakness of the society's ability for growth. The
power of a society to grow may be observed in the degree of functional adequacy which it exhibits. In a hungry society the essential power to break out of the vicious circle of poverty and food shortages is absent, since much of the group's energy is tied to existing inadequate food production. The situation is much like the mouse on a treadmill, exerting tremendous amounts of energy, but not moving an inch! Investment and enrollment in education and the general level of national technological development indicate the degree to which the necessary "transforming freedom" is or is not present. Hunger serves to restrict that freedom by directing potentially creative energies to the pressing task of providing food. In many cases this is by inefficient means resulting in a restriction of the potential of the group's "transforming freedom". As well hunger fractures the level of what this study has called, "group compliance" and generates stagnation by neutralizing the creative energies. Even if there is a group that evolves some means whereby the society may increase food production, their efforts may be undermined by rapid population growth or by the large numbers that must be fed. The distribution of income, the drastic disparities in the quality of life between the rich and the poor, and the level of political freedom indicate the degree of effective group compliance. Wide income distribution and limited political freedom tend to indicate enforced group compliance. Such
compliance although not highly desirable by North American standards, is the most readily available means for encouraging any growth. In a hungry country, even enforced group compliance may be impossible, since the internal tensions generated by the large percentage of the population that is hungry, may not be containable to foster an atmosphere for stable change. Thus stagnation is further enhanced. Thus the presence of hunger in a society stifles the societal facility, limits the functional adequacy, and fractures group compliance resulting in no hope for growth.

Hunger further imposes a sense of alienation upon a people. Creative interaction necessary to generate 'vision' of life's ultimate purpose is impeded. These people can not generate a vision because they do not even participate in the process that allows them to consider the nature of the 'vision'. When one views the size of important projects in dollars, the percentage of investment channeled into research and development, or the number of newspapers/radios/televisions distributed per thousand inhabitants, one can begin to estimate the extent to which the population provides input into the development of their own vision. However, even beyond this, hunger also impedes group participation in any vision that might be generated, or one that may already be present. The sense of shared participation in the values goals and aims of the group in the case of hungry
countries often excludes a signifigant percentage of the population. If one looks at the high unemployment levels, the increasing rate of land concentration, the percentage of unutilized industrial capacity as compared to the unmet demands of the people, and the strength of labour organizations, one can gain a feeling for those masses of people alienated from participation in the vision. The reality of hunger further serves to sanctify alienation by limiting the sense of, what this study has described as "mutual responsibility". The voting records and election practices which would seem to indicate limited participation in the decision making process of a country, as well as limited social security measures, low ratios of physicians per thousand people, and the almost non-existence of retirement or workmen's compensation plans, indicate a limited sense of mutual responsibility in hungry nations. In the light of the preceeding, one can see that the overall net effect is that hunger by limiting creative interaction, restricting group participation, and reducing the sense of mutual responsibility, serves to alienate people from the vision of their society.

In summary, in this section we have argued that hunger is a fundamental "estrangement" undermining their group cohesiveness, impeding their vocational consciousness, weakening the quality of leadership they recieve, stifling their society's fascility, fracturing their group compliance, limiting their creative
interaction, restricting their group participation, and reducing their sense of mutual responsibility. In this way, the demonic forces of disintegration, stagnation, and alienation are fostered and human fulfillment is undermined. Hunger must, therefore, be recognized as a 'social sin' which epitomizes what human fulfillment opposes. The reality of hunger is not merely the presence of starving people, rather it is a phenomenon whose roots run to the very depths of essential human existence. The nutritional symptoms are important, and must be addressed, but not at the expense of diverting attention away from the deep levels of estrangement which also serve to perpetuate conditions that generate hunger in all its manifestations.

The Relationship between Nutritional Hunger and Hunger as Estrangement;

Nutritional hunger is the symptomatic reflection of hunger as estrangement. There is a strong relationship between these two perceptions of hunger, since in reality they are manifested as one and the same phenomena. Their roles in discussion, however, are different. Nutritional hunger is what we see. Hunger as estrangement is what the hungry feel!

Nutritional hunger in one form embodies disintegration. What a person may become is severely impeded. The child whose brain does not develop to its full ability due to an insufficient protein intake, will never have the future of the well fed North
American child. The potential identity of the hungry person is substantially reduced. The centred self is subjected to the disintegrative forces which thwart its attempts to achieve its full potentiality.

Nutritional hunger also can be embodied as stagnation. The simple ability to improve one's environment may be missing in the hungry person's existence. So much energy is demanded for the hungry person to merely survive, there is nothing left for growth or creativity. This situation might be compared to that of a pregnant woman who is not supplied with sufficient calcium in her diet. The unborn child demands the calcium nevertheless, which results in the consumption of the mother's calcium, weakening her bone structure and resistance to disease. This parasitic growth is really stagnation. What appears as growth is really no growth but the self overcome by stagnation.

Nutritional hunger can further embody alienation. The ability to participate in the life of the society may be crippled for those people struggling to acquire sufficient food. Poor people may not have the income to even participate in the market system of food distribution. For example, in India it has been reported that in some cases there were abundant harvests, yet still many people went hungry because they did not have the money to purchase the food. Thus they are alienated from the food distribution process of the society and ultimately from the society itself.
Thus nutritional hunger and hunger as the social sin of estrangement are inter-related. We cannot speak of the hunger in a person's stomach without pointing to the disintegration, stagnation, and alienation of his soul! Hunger is a multifaceted issue that strikes at the very depths of our being and is reflected in the everyday existence of our world.

Three Approaches to Alleviate the Impasse:

To recognize that hunger to a large degree, is a man-made blight, means by implication that man has the potential ability to alter this state for a large percentage of his species. What then is the course of action that he should pursue? This is the ultimate question that has faced decision makers from the time of the Egyptian monarch Tosorthrus to the leaders attending the recent World Food Conference in Rome.

Historically there have emerged three basic sets of policies which decision makers have projected to surmount the obstacles posed by the disintegration, stagnation, and alienation of world hunger. The first type are the Neo-Malthusian policies which focus on the threat of disintegration and seek to address it by enhancing group cohesiveness, the group vocational consciousness, and the quality of group leadership. The second type are the Green Revolution policies which focus on the threat of stagnation and seek to address it by enhancing the society's fascility, its functional adequacy, and the degree of its group compliance. The
third type are the New Economic Order policies which focus on the threat of alienation and seek to address it by enhancing the society's level of creative interaction, group participation, and sense of mutual responsibility. Upon brief inspection, it becomes apparent that each type is inherently inadequate since it only addresses one dimension of the problem (disintegration, stagnation, or alienation).

Our study will endeavor to look in greater detail at each of these types of policies. We will attempt to illustrate specific recommendations that arise from each type. And most importantly, we will seek to discover which of these three exegencies must be currently stressed to re-establish a balance among the three essential elements of life: self-integration, self-creativity, and self-transcendence.
FOOTNOTES FOR CHAPTER 5

1 Castro, p.207.
3 Ibid.
4 Ibid., p.27.
5 Ibid.
6 Castro, p. 8.
7 Brown, p. 27.
8 Castro, p. 20.
9 Ibid.
10 Ibid.
11 Ibid.
12 Ibid.
13 Castro, p. 2
14 Erhlich, p.296.
15 Bryant, p.31.
16 Ibid.
17 Ibid.
18 Erhlich, p.291
19 Ibid.
20 Castro, pp.42ff.
21 Ibid., p.63.
22 Ibid.
23 Ibid., p.24.
24 Ibid., p.15.
In 1798, the Reverend Thomas Malthus wrote his famous work entitled, "An Essay on the Principle of Population as it affects the Future Improvement of Society". (1) Basically it was Malthus' contention that as agricultural production increased arithmetically, population increased geometrically. If unchecked, this process would ultimately lead man to extinction by virtually not being able to provide himself with the essential food requirements. Malthus wrote,

"The natural inequality in the two powers of population and production in the earth and that great law of nature which must constantly keep their effects equal, form the great difficulty that to me appears insurmountable in the way to the perfectability of society." (2)

Malthus may not have been the first to recognize this hunger impasse, yet he certainly must be credited as the first to articulate the issue. The issue was simply that, if man could not control his numbers through the "positive checks" (death rate) or through "preventive checks" (birth control), man's demand for essential life sustaining commodities would eventually exceed the available supply.

There are many notable people today that maintain that overpopulation is the principle cause of hunger in the world today. It is their contention that the hunger impasse is mainly a function of the rate of population increase. They would argue
that only through "positive" and "preventive" curbs to increased population, can life as we know it, survive. We shall refer to this group as the Neo-Malthusians. One fairly representative Neo-Malthusian is William Vogt who a few years ago believed that,

"...there is little hope that the world will escape the horror of extensive famines in China in the next few years. But from a world point of view, these may not only be desirable but indispensable."(3)

Neo-Malthusian policies emphasize self-integration as opposed to self-creativity and self-transcendence. They attempt to rebalance these three elements by focusing on the disintegrative threat that undermines group cohesiveness, vocational consciousness, and the quality of leadership.

Certainly as the Neo-Malthusians claim, population increases have been dramatic. To appreciate this one only has to consider the fact that between 4% to 5% of all the people that ever existed, live now! The following graph illustrates this dramatic increase.
Malthusian projections seem highly accurate when one considers that in 8000BC there were only an estimated 5 million people. At the time of Christ there were between 200-300 million and between 1650 and 1850 the world population doubled to reach 1 billion. However, the most dramatic increases have occurred since 1850. In slightly less that 80 years from this date the population again doubled to 2 billion. In the subsequent 40 years, the population has doubled again to over 4 billion today. (5)

Projections for population increases in the future seem even more disheartening. Unchecked, the world population will again double in 36 years, placing the world population at over 8 billion by the turn of the century. The question thus becomes, "Is there a sustainable limit to population growth?" In the light
of the present hunger crisis, it is doubtful that we can sustain the present rate of population growth without massive misery and starvation. This point becomes even more apparent when one recognizes that this is an average projected increase. In selected areas, primarily those least able to feed themselves at present, the projected increases are even greater. The following table illustrates the present growth rates for the major world regions.

**POPULATIONS, 1960, 1970, 1975, AND RATES OF GROWTH IN MAJOR REGIONS OF THE WORLD:**

<table>
<thead>
<tr>
<th>Region</th>
<th>Population (millions)</th>
<th>Annual Growth Rate (%)</th>
<th>1960-70</th>
<th>1970-7</th>
</tr>
</thead>
<tbody>
<tr>
<td>World Total</td>
<td>2995</td>
<td></td>
<td>1.90</td>
<td>1.93</td>
</tr>
<tr>
<td>Europe</td>
<td>425</td>
<td></td>
<td>0.77</td>
<td>0.64</td>
</tr>
<tr>
<td>USSR</td>
<td>214</td>
<td></td>
<td>1.25</td>
<td>0.99</td>
</tr>
<tr>
<td>US and Canada</td>
<td>199</td>
<td></td>
<td>1.31</td>
<td>0.90</td>
</tr>
<tr>
<td>Oceania</td>
<td>16</td>
<td></td>
<td>2.12</td>
<td>1.98</td>
</tr>
<tr>
<td>South Asia</td>
<td>865</td>
<td></td>
<td>2.50</td>
<td>2.64</td>
</tr>
<tr>
<td>East Asia</td>
<td>787</td>
<td></td>
<td>1.62</td>
<td>1.63</td>
</tr>
<tr>
<td>Africa</td>
<td>272</td>
<td></td>
<td>2.58</td>
<td>2.66</td>
</tr>
<tr>
<td>Latin America</td>
<td>216</td>
<td></td>
<td>2.74</td>
<td>2.73</td>
</tr>
</tbody>
</table>

**TABLE 6-2**

Thus Latin America, Africa, and South Asia which are the areas that are at the present time encountering major production difficulties in the area of food, have less time due to the growing pressure of population growth.

However, the answer to the population question is not complete until one considers further where it is that this
A growing population is accommodated. Increasingly these increased numbers are crowded into already over-crowded cities. One major reason to move to the city results from a decrease in the ability to farm and/or find rural agricultural employment. The following graph illustrates the rapid rate of urbanization in key regions.

GROWTH OF URBAN POPULATION (≥20,000 inhabitants): (7)

![Graph showing urban population growth in South and S.E. Asia, Latin America, W. Europe, and N. America.](image)

**FIGURE 6-3**

The growth rate of the urban population in South East Asia is twice that of the region. (8) When we view the table on population growth above, the 'doubling time' of the population in this specific area is reduced and increased pressures are imposed upon the local social structures. If Calcutta grows at its present rate, there will be 60 million people by the year 2000 struggling to survive in a city whose resources and services are already stretched to the limit. (9) Thus urbanization accentuates the problems of rapid population growth.
Given the gravity of rapid population growth, it must still be recognized that there is more to the issue. According to the Neo-Malthusian school, the hunger impasse is reached when food production is outstripped by the increased demand for food. The present situation reflects just such a situation with the exception of North American and western European developed countries, the Eastern Bloc, and the U.S.S.R.. It is primarily due to the developed countries, such as Canada and the United States, which export massive quantities of grains, that the statistical food picture does not appear worse. North America, the largest grain producing area, exported 94 million metric tons (mmt) in 1976, a dramatic increase from the 5 million metric tons in 1934-38.(10).

This situation will inevitably get worse. Increases in the demand for food will inevitably grow faster than available production facilities can accommodate. The International Food Policy Research Institute has estimated that by 1985-6 the food production deficit will be approximately 100 million metric tons, provided the rate of increased production is on par with 1960-75 data. If food production grows at a slower pace as it has since 1969, which is more likely, this deficit could easily jump to 200 million metric tons.(11) The size of this deficit would certainly raise serious questions regarding the ability of food producing countries to generate such awesome amounts of food.
Graphically the following table compares the rate of population growth to the rate of increasing demand. Clearly the stark reality of an ever increasing gap between the available supply and requisite demand, makes the Malthusian prophecy an even more potential reality.

UNITED NATIONS PROJECTIONS OF FOOD DEMAND AND PRODUCTION AND POPULATION GROWTH TO 1985:(12)

<table>
<thead>
<tr>
<th>Region</th>
<th>Demand for Food</th>
<th>Production of Food</th>
<th>Projected Population Growth</th>
<th>Demand for Food</th>
<th>Production of Food</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed Countries</td>
<td>1.5</td>
<td>2.8</td>
<td>0.9</td>
<td>126</td>
<td>151</td>
</tr>
<tr>
<td>Market Economies</td>
<td>1.4</td>
<td>2.4</td>
<td>0.9</td>
<td>124</td>
<td>143</td>
</tr>
<tr>
<td>Eastern Europe &amp; USSR</td>
<td>1.7</td>
<td>3.5</td>
<td>0.9</td>
<td>130</td>
<td>168</td>
</tr>
<tr>
<td>Developing Market Economies</td>
<td>3.6</td>
<td>2.6</td>
<td>2.7</td>
<td>170</td>
<td>146</td>
</tr>
<tr>
<td>Africa</td>
<td>3.8</td>
<td>2.5</td>
<td>2.9</td>
<td>176</td>
<td>145</td>
</tr>
<tr>
<td>Far East</td>
<td>3.4</td>
<td>2.4</td>
<td>2.6</td>
<td>166</td>
<td>143</td>
</tr>
<tr>
<td>Latin America</td>
<td>3.6</td>
<td>2.9</td>
<td>3.1</td>
<td>170</td>
<td>152</td>
</tr>
<tr>
<td>Near East</td>
<td>4.0</td>
<td>3.1</td>
<td>2.9</td>
<td>180</td>
<td>157</td>
</tr>
<tr>
<td>Asian centrally planned</td>
<td>3.1</td>
<td>2.6</td>
<td>1.6</td>
<td>158</td>
<td>146</td>
</tr>
<tr>
<td>planned economies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All developing countries</td>
<td>3.4</td>
<td>2.6</td>
<td>2.4</td>
<td>166</td>
<td>146</td>
</tr>
<tr>
<td>WORLD</td>
<td>2.4</td>
<td>2.7</td>
<td>2.0</td>
<td>144</td>
<td>150</td>
</tr>
</tbody>
</table>

TABLE 6-4
It can clearly be seen that by 1985, the projected demand in developing countries for food will be at a volume level of 166 while production will only reach a volume of 146. Thus the responsibility will fall even more upon the developed countries to make up this deficit. This estimate is based upon the assumption that the present situation with respect to population growth and production (i.e. supply and demand) remains constant. This however, may be an optimistic assumption. In the Club of Rome's most recent report, this perspective only represents one of four possible 'scenarios'. (13) Each scenario implies some action. Their conclusion is that "...delays in coming to grips with the 'world problematique' are truly deadly." (14)

Assuming that overall food production does keep pace with population growth, inevitable problems will arise with the present limited capacity and availability of adequate transportation and distribution facilities. A recent announcement by the F.A.O. has pointed out that these two obstacles prevent the adequate distribution of existing food stocks. (15) In some countries there is between 10% and 15% food loss due to spoilage, insects, pests or rodents between the market place and the dinner table. (16) There is also uneven distribution. In Maharasta, India, food energy intake ranged from a high of 3000 kcal. to a low of 940 kcal.. Even in the high income homes receiving 3000 kcal, they were still below the UN estimated daily requirement of 3100 kcal.. (17)
The distribution of food supplies within the family is even distorted in times of shortages. It is usually the father and the older brothers that eat the larger portions, with the women and children eating what remains. Thus the estimates are even distorted somewhat when one considers the intake of women and children. One way of gaining an adequate picture here, is to observe the child mortality rates. High child mortality rates indicate the extent of the suffering due to this unequal distribution of food. The following table illustrates child mortality rates in selected countries.
CHILD MORTALITY RATES, 1-4 YEARS, 1960-62 (AVERAGE ANNUAL):(18)

<table>
<thead>
<tr>
<th>Continent &amp; Country</th>
<th>Rate per 1000 children</th>
<th>Continent &amp; Country</th>
<th>Rate per 1000 children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td></td>
<td>Europe</td>
<td></td>
</tr>
<tr>
<td>Mauritius</td>
<td>8.7</td>
<td>Austria</td>
<td>1.3</td>
</tr>
<tr>
<td>Reunion</td>
<td>9.6</td>
<td>Belgium</td>
<td>1.0</td>
</tr>
<tr>
<td>United Arab Republic</td>
<td>37.9</td>
<td>West Germany</td>
<td>1.3</td>
</tr>
<tr>
<td>North &amp; Central America</td>
<td></td>
<td>Hungary</td>
<td>1.6</td>
</tr>
<tr>
<td>Canada</td>
<td>1.1</td>
<td>Italy</td>
<td>1.9</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>10.8</td>
<td>Portugal</td>
<td>8.0</td>
</tr>
<tr>
<td>Guatemala</td>
<td>32.7</td>
<td>Sweden</td>
<td>0.8</td>
</tr>
<tr>
<td>South America</td>
<td></td>
<td>Switzerland</td>
<td>1.2</td>
</tr>
<tr>
<td>Chile</td>
<td>8.0</td>
<td>United Kingdom</td>
<td>0.9</td>
</tr>
<tr>
<td>Columbia</td>
<td>17.4</td>
<td>Yugoslavia</td>
<td>5.2</td>
</tr>
<tr>
<td>Equador</td>
<td>22.1</td>
<td>Oceania</td>
<td></td>
</tr>
<tr>
<td>Asia</td>
<td></td>
<td>Australia</td>
<td>1.1</td>
</tr>
<tr>
<td>Ceylon</td>
<td>8.8</td>
<td>Fiji Islands</td>
<td>3.7</td>
</tr>
<tr>
<td>Taiwan</td>
<td>7.2</td>
<td>New Zealand</td>
<td>1.2</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>4.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phillipines</td>
<td>8.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Syria</td>
<td>8.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>9.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TABLE 6-5

The nutritionist Alan Berg has estimated that approximately 15 million children die each year as a result of malnutrition and related diseases.(19) Thus, it is obvious that the distribution factor must be addressed to alleviate hunger.

Thus the Neo-Malthusians maintain that the gap between food production and population growth is increasing every day. This gap will not be sustainable as man moves into the future. Ultimately the "positive" checks of death through disease and starvation will alleviate some of the pressure. However, barring
some ultimate calamity, there will be an ever-present pressure upon the world's social structure.

Neo-Malthusian Policies:

The ultimate assumption, as we have also made, is that man is able to influence the nature of his environment. Malthusians adopt a similar assumption but with a mixture of 'natural law'. Beyond a certain "limit to production", nature, if allowed, will impose constraint. But man can exert some influence. Malthus writes, concerning the nature of "checks",

"...consider...the nature of those checks which have been classed under the general heads of preventative and positive. It will be found that they are all resolvable into moral restraint, vice and misery. And if, from the laws of nature, some check to the increase of population be absolutely inevitable, and human institutions have any influence on the extent to which each of these checks operates, a heavy responsibility will be incurred, if all that influence, whether direct or indirect, be not exerted to diminish the amount of vice or misery."(20)

It would appear from this that this perspective perceives three possible approaches to policy; population control, massive food relief, or selective misery.

Population Control:

Planned control of population is not unique to modern man. Quite the contrary, 'planned parenthood' probably dates back to prehistoric times when man was still a hunter and a gatherer of fruits and vegetables.(21) Due to the migratory life style of these early peoples, it was difficult to feed and care for more
than one infant at a time. Thus 'child spacing' is theorized to have been a common practice to avoid the simple problem of the women having to carry more than one child. (22) Intensive breast feeding may have also reduced the fertility level and in selected cases infanticide may have been employed to reduce the pressure on the tribe or clan by additional children. Thus the conscious control of reproduction may have been in fact a very essential element of the human condition. With the advent of more settled communities a 'pro-natalist' view evolved due probably to a child's potential value as a worker in agricultural production and to an increased ability of communities to care for larger numbers of dependent children.

The major policy of Neo-Malthusians is the control of the reproductive process especially among less developed countries. By managing the rate of population increase, the demand for food supplies will not increase as rapidly and the disintegrative forces of hunger will be averted. Therefore, any policy must have as its' goal at least one of the following;

"...(A) Reduce the rate of growth of population although not necessarily to zero. (B) Stabilize the size of the population; that is achieve a zero rate of growth. (C) Achieve a negative rate of growth in order to reduce the size of the population." (23)

To achieve these goals the generally agreed method is to restrict births as opposed to allowing deaths to increase.
There appear to be three basic approaches to restricting reproduction; education, socio-economic measures, and enforced control. In many less developed countries there remains a strong pro-natalist view that it is not 'right' or 'healthy' for young married couples to refrain from raising a family. Strong superstitions persist concerning birth control. In many cases birth control and family planning appear as frightening policies imposed upon the people by outsiders.

Through education, attitudes have to change before birth control and family planning can be effective. In India, for example, the standard greeting among women is "May you have many sons." Childless women are viewed with suspicion and may even be considered 'witches'. Husbands are entitled to divorce if their wife is childless. (24) People must begin to recognize the advantages and overcome their inherent fears before any program can really succeed in reducing population pressures. Karl Marx himself, opposed Malthusian ideas of population control since he saw it as a means to reduce the power of the working class. However, in later years, he too began to accept in principle the need for controlled reproduction. (25)

Another approach to birth control and family planning is through socio-economic measures. The basic objective would be to affect the basic attitudes of couples of child bearing age. Some proposals could include incentives for late marriage, bonuses to
couples with 5 childless years, or other special benefits open only to childless adults. The Indian government has instituted "family planning festivals" with incentives, gifts and entertainment for recruiters and recipients of vasectomies.(26) Effective programs for population control must take into account socio-economic context. Clearly inducements for sterilization and reduced family size are a function of factors that are beyond mere bodily functions.

A third approach is imposed population control. The intent here would be to impose restrictions upon the number of children an individual couple might have for the benefit of the majority. One proposal by the economist, Kenneth Boulding, is that each woman when she reaches child bearing age, be issued a license that would allow her to give birth to a set number of children (ie. two if the population policy was zero population growth). In the long run the population of societies could be stabilized or reduced.(27) Other suggestions have included the placing of contraceptives in the drinking water or staple foods of selected groups of people. However, to date none of these more extreme proposals have been tried. In India some steps in the direction of enforced population control were taken when in 1976 the government undertook to establish compulsory sterilization for couples with more than two children.(28) Nevertheless, enforced birth control seems to be the least acceptable strategy to both
governments and the affected local people for obvious reasons. In practice, Neo-Malthusians advocate some combination of these policies to suit the particular context. Only in this way they maintain that major disaster will be averted.

Massive Food Relief:

To a lesser extent, Neo-Malthusians advocate massive food relief. In principle food aid is viewed as a holding pattern to allow population growth to be checked and the increase in food production to occur.

Aid in this context is specifically food aid. Organizations such as the Lutheran World Relief and CARE as well as governmental programs, such as the U.S. "Food for Peace Act" (PL-480) and the Canadian International Development Agency (CIDA) pursue this type of aid.(29)(30) Between 1954 and 1969, 30% to 45% of food imported by less developed countries came in the form of some food aid program.(31)

Food aid has been dwindling among traditionally large donors. Many governments have eliminated reserves which have traditionally served to insulate the market from dramatic fluctuations in price, which has primarily been upward for purchasers. American "food aid", which constituted at its zenith 83% of donated food, has been probably cut back most severely.(32) Thus, where free food had been available formerly under such programs as PL-480, now many poorer countries in
1973/74 received only one-fifth of the food they had received in 1967/68. Canada is one of the few developed countries that has actually increased its food disbursements. At the Food Conference in Rome, former External Affairs Minister, Allan MacEachen, announced a new commitment of 1 million metric tons of grain per year as well as $45 million/year of non-grain food stuffs.

It seems however, that popular support for policies encouraging food aid has waned. Tales of corruption, black markets, waste, and spoilage have immobilized many people's concern. For example in 1974/75, the Ethiopian governments increased grain exports while applying for free food aid, much of which in turn was resold or stored. When food aid was distributed, there were no planes to transport it. They were all engaged in suppressing the Eritrean rebels. A lot of food aid sent to Bangladesh following independence, found its way into India where the prices were higher. While much of this food aid does find its way to the hungry, however, the effectiveness of the present system is being called into question.

The Neo-Malthusians seem to place a limited emphasis on food aid in the long term, as evidenced by the dwindling surpluses being distributed to hungry nations. It is basically a short-run policy, to allow for effective population reduction. However, even if just in the short-run, effective food aid can provide a
means of redressing the forces of disintegration generated by hunger.

Selective Misery:

There seems to exist within the Malthusian thought an inherent prophecy of doom. If population policies are not effective, the ultimate destiny for man will be starvation and misery. D. Paarlberg reflects these undertones when he writes that "...unless the present rate of population growth is checked, there is no solution for the world food problem."(37) The Neo-Malthusian vision is that any effort to tamper with the 'natural' forces results ultimately in the same end, disaster! Lord Boyd Orr, in 1948, characterized this Neo-Malthusian principle,

"Exactly a hundred and fifty years ago, a reverend gentleman called Malthus wrote a pamphlet pointing out that the population of the world was growing, that the physical capacities were limited, and that the stage would soon be reached where there was not sufficient food to feed the people of the world. It was therefore, wrong, he suggested, to bring in measures of social amelioration, for preventing the death of infants and for keeping people healthy, because if that were done more people would survive and the problem would become worse."(38)

Thus there are some Neo-Malthusian policies presented today that reflect the possibility of ultimate misery. Two of these are "Lifeboat Ethics" and "Triage".

Lifeboat Ethics;

Garrett Hardin has used the metaphor of a lifeboat to
describe the present world situation. He writes,

"The poor of the world are in the other, much more crowded lifeboats. Continuously, so to speak, the poor fall out of their lifeboats and swim for a while in the water, hoping to be admitted into the rich lifeboat, or in some way to benefit from the 'goodies' on board. What should the passengers on the rich lifeboat do? This is the central problem of the 'ethics of a lifeboat'"(39)

There are three possibilities for the passengers, Hardin maintains. Firstly they can attempt to take on all the needy swimming in the water. But given the limited capacity of the lifeboat, eventually the rich lifeboat will be swamped and everyone will drown, rich and poor. This position, according to Hardin, but not necessarily the view of the author, represents "complete justice and complete disaster". (40) Secondly, the rich could take on persons until they reach their lifeboat's capacity, letting the rest be sacrificed; as well, not a highly just action. Finally, the rich could take no passengers and assure their own safety by forcibly guarding against any boarding attempts. Hardin agrees that this is a highly "unjust" position, but those who feel guilty can exchange their place with the drowning and thus the guilt will be purged from the system. Therefore, Hardin maintains that in the short-run disintegration can create injustice. However, in the longer term this type of selective disintegration allows the possibility for fulfillment.(41)
Another policy approach has been advocated by William and Paul Paddock in their book, *Famine*, 1975. They believe that the rich countries need some way of determining how aid is to be distributed. Given limited resources, how do we decide who to help?

Their position advocates the adoption of a policy of triage. 'Triage' is a term adopted from military medicine. When casualties flooded a medical facility during a conflict, the available staff was unable to treat everyone. Therefore, some decision had to be made as to who would be treated. The patients were divided into three groups; (a) those who would survive regardless, (b) those who will survive with treatment, and (c) those who will die regardless of treatment. Only the second group was treated.

The Paddocks advocate that a similar approach be utilized for dispensing limited aid. Countries would then be categorized as follows; (a) countries that could survive without massive aid such as Libya and the OPEC nations that have resources, (b) countries that could be food self-sufficient with some aid to tie them over, as in the case of Pakistan, and (c) those countries that seem so overwhelmed by overpopulation and limited food supplies that disaster is inevitable, as in the case of India or Bangladesh. Food aid would only be given to those countries in the second category that have a hope for survival. The third
group would suffer now what they would have inevitably suffered in the future!

These two approaches certainly give a drastic portrayal of the present world situation. However, given the limited "carrying capacity" of this global lifeboat and the limited resources to provide aid, Hardin and the Paddocks believe it is the only viable road to a form of human fulfillment.

"Every life saved this year diminishes the quality of life for subsequent generations." (44)

Thus human fulfillment is possible only with a price, the disintegration of the masses of humanity that exist on the fringe of subsistence.

The Effectiveness of Neo-Malthusian Policies:

We must now focus our attention upon the viability of these policies to alleviate the condition of hunger. The primary policy of the Neo-Malthusian school is population control with only a supporting role given to food aid policies and a casual repugnance to those policies of selective misery. The Neo-Malthusian school seeks to address the element of disintegration by enhancing group cohesiveness, vocational consciousness, and the quality of leadership.

Group Cohesiveness;

Group cohesiveness is the enthusiastic support for the essential forms of a culture. It represents that element of the
group identity that engenders a sense of belonging to the society. When the death rate drops or infant mortality declines, it would appear that group cohesiveness is enhanced. That is, when the survival rate of the children is assured, one does not need to have large families as a hedge against infant mortality.

The Chinese have met with great success in introducing population policies and curbing their growth rate. Recent approximations place their growth rate at 1.5% per annum compared to 2.5% plus in many less developed countries.(45) In contrast to other systems (ie. India), birth planning was instituted at the local level. There is one member of the local "Revolutionary Committee" responsible for birth planning. Information is distributed in the home by women with families who are known and respected in the community.(46) In some cities there are even sessions where all the births are planned by the local women in the neighbourhood. Pi-Chao Chen writes,

"While there is no question whatever about the Chinese leadership's position on birth planning, coercion does not appear to be part of the program beyond the extensive use of peer pressure and the dissemination of propaganda on all levels."(47)

Due to increased health care programs in China of which birth planning is an important part, the death rate has dropped from 35 per 1000 in 1949, to an estimated 13 per 1000 in 1974.(48) Infant mortality rates have also been drastically reduced from the pre-revolutionary level of 200 per 1000 to as low as 14 per
1000 in some regions with no areas exceeding 24 per 1000. Other countries with family planning programs such as Hong Kong and Singapore have also managed to reduce their infant mortality rates to 18/1000 and 16/1000 respectively. (49) The effect of these policies is to enhance group cohesiveness by stabilizing the composition of the population.

It would appear that effective population policies serve to enhance group cohesiveness. (50) This is certainly evident in the case of China where there has been enthusiastic support for the programs of birth planning. The lower death rate and infant mortality rate seems to reflect the presence of a strong sense of belonging within the group.

Vocational consciousness;

Vocational consciousness reflects the group's sense of mission which is a purpose that binds them together as a community with a sense of identity. A vocational consciousness enables the members to feel the power of their society's ideas and symbols. Population policies should enhance vocational consciousness. A longer life expectancy and a greater time period before the population doubles would serve to indicate that vocational consciousness is enhanced.

In our example of the People's Republic of China, it appears that an effective vocational consciousness has been embodied. As Josue de Castro claims,
"...the successes of communism in China, in my opinion, are due to the fact that the communists have promised freedom from the threat of starvation..."(51)

and the people have believed in that promise. The sense of vocational consciousness is implicit in these official comments on Chinese policy of planned population growth,

"We believe China's policy benefits many aspects of life - national construction, the emancipation of women, protection of mothers and women and children, proper bringing up of the young, better health care for people, and prosperity for the nation. It is, in other words, in the interests of the masses."(52)

Thus there exists a tangible vocational consciousness within which the people can believe and participate.

It is interesting to observe, in the case of China, that life expectancy has risen to 62 years, which is above the Asian average of 56 years and significantly above the African average of 45 years.(53) Hong Kong's and Singapore's life expectancy is also significantly higher, 71 and 67 years respectively. It will take China's population 41 years to double in size compared with the Asian average of 35 years and the African average of 27 years.(54) It would appear from the indicators that in countries which have engaged in successful family planning programs, vocational consciousness is enhanced. The examples of the People's Republic of China, Hong Kong, and Singapore seem to support this hypothesis.
The leaders of a community embody the centredness of the society. Strong leaders enhance that centredness and conversely, weak leaders detract from it. Population planning should aim at the development of improving or supporting strong leadership which fosters group cohesiveness and embodies vocational consciousness. Some indicators of the quality of leadership that should be enhanced are the stability and duration of popular governments and the reduction of the number of revolts or 'independence' movements.

Referring again to the Chinese example, China has developed strong indigenous leadership. Unquestionably, Chairman Mao Tse Tung has emerged as one of the greatest men of this century. His charismatic presence amidst the Chinese people has given him an almost god-like quality. In the post-revolutionary period, the closure of China to western influences has forced the Chinese to rely on their own leaders to an extent that other countries, such as India, Indonesia, and Zaire, may never achieve. The leadership in China has had to exhibit a greater degree of accountability to the people by their choice of a parochial path of survival. Mao reflects this accountability when he said, "...of all things people are the most precious."(55)

Viewing the stability and the popular support by the people for the Chinese government's program for alleviating poverty and hunger, it appears that the reduction of population pressures has
helped to generate strong leadership that embodies a popular vocational consciousness and reflects the cohesiveness of the masses. As we view the apparent instability and inadequacies of some LDC governments, such as the recent example of Zaire (death rate = 20/1000: infant mortality rate = 160/1000: population doubles in 25 years: life expectancy = 44 years: birth rate = 45/1000), which is heavily supported by the developed western nations, we can see a more vivid portrayal of the true degree of success of the Chinese.(56)

Thus it appears that effective population policies encourage self-integration. They enhance the group's cohesiveness. They allow for a vocational consciousness. Lastly, they encourage strong leadership. Neo-Malthusian policies may not solve the total challenge of hunger, but they do adequately redress an important dimension of the issue, the threat of disintegration of the centre of a society.

This chapter has shown the extent to which Neo-Malthusian polices have been employed in an attempt to overcome the hunger impasse. Generally, Neo-Malthusian policies have addressed the threat of "disintegration" in an adequate way and therefore, it would appear that these policies need to be of continued concern but one of secondary emphasis at this time. If the threat of disintegration is adequately addressed, then which threat,
stagnation or alienation, has generated the injustice of the present hunger impasse? Our attention now turns to the threat of stagnation and the body of Green Revolution Policies.
FOOTNOTES FOR CHAPTER 6

1 Malthus, Thomas
2 Ibid., p.72.
3 Castro, p.17.
4 Bryant, p.36
5 Erhlich, p. 186.
6 Ibid., p.199.
7 Mankind at the Turning Point, p. 76.
8 Ibid.
9 Ibid.
10 Erhlich, p.319.
11 Ibid., p.328.
12 Ibid.
13 Mankind at the Turning Point, p.78ff.
14 Ibid., p.81.
16 Erhlich, p. 302.
17 Ibid., p.303.
18 Ibid., p.309.
19 Ibid., p.304.
20 Malthus, pp.249-50.
21 Erhlich, p.736.
22 Ibid.
23 Ibid., p.737.
24 Erhlich, p.777.
25 Malthus, p. 54.
26 Erhlich, p.768.
27 Ibid., p.787.
28 Ibid., p.769.
29 Ibid., p.322.
30 Roche, p.51.
31 Erhlich, p.322.

32 Ibid..
33 Ibid..
34 Roche, p.71.
35 Erhlich, p.323.
36 Ibid..
37 Bryant, p. 35.
38 Malthus, p.7.
39 Erhlich, p.921.
40 Ibid., p.922.
41 Ibid..

42 Paddock, Paul and Paddock, William, Famine 1975 (Little and Brown, Boston; 1967).
43 Ibid..
44 Erhlich, p.922.
45 Erhlich, p.771.
46 George, p.67.
47 Erhlich, p.773.

48 Ibid., p.771.

49 Ibid., p.773.

50 Of course, group cohesiveness as it emerges from effective population policies can in turn help facilitate future effective population policies.

51 Castro, p.171.

52 Erhlich, p.770.

53 Ibid., p.960.

54 Ibid.

55 Ibid., p.737.

56 Erhlich, p.950.
CHAPTER 7 THE GREEN REVOLUTION OPTION

Another approach to the challenge of hunger involves the policies of Green Revolution. In contrast to Malthusian thought, this approach maintains that man can surmount the coming hunger impasse through the implementation of more intensive use of the factors of production, particularly technological innovation. On a basic level, such implementation should embody,

"...a technological approach to increasing the yields of basic food crops...(that is) a carefully worked out combination of techniques and technology which includes new seed varieties, irrigation, and the intensive use of chemical fertilizers, pesticides, and herbicides."(1)

As one can see, this option raises the whole question of the need for and the proper nature of economic growth and development. In terms of this study, the Green Revolution option deals principally with "self-creativity". The foundation of this option rests upon the ability of the self or the group not merely to exist, but also to actively participate in the shaping of its environment. This approach, therefore, primarily focuses on the threat of stagnation. Put another way, the Green Revolution option does attempt to increase food production but in the process also raises a whole spectrum of questions associated with economic growth, which in the modern context is a function of the speed of technological innovation and implementation. In this regard, John Maynard Keynes writes that achieving human
fulfillment will be governed by,"...our willingness to entrust to science the direction of those matters that are properly the concern of science..."(2) Growth is thus, the prime criterion by which to surmount any impasse, such as hunger, in the pursuit of human fulfillment.

Growth in economic terms in this approach is synonymous with development. To analyse policies that enhance growth, we must observe the theories of economic development. As the Dag Hammarskjold Foundation maintains,

"Development is a whole; it is an integral value-loaded cultural process; it encompasses the natural environment, social relations, education, production, consumption, and well being."

In the economic context, no growth represents poverty. That is, a stagnating economy results in massive poverty since the production of the basic human requirements can not keep pace with the rising demand generated by increases in population and rising expectations. J.K. Galbraith writes that, "... the central tendency of a poverty-ridden community is the absence of any tendency for improvement."(4) Thus growth serves to reduce poverty.

The Green Revolution Proper;

The question of development is of recent origin. It is the recognition of a basic reality that there exists in the world two groups of countries; those that have developed (DCs) and those
that have remained less developed (LDCs). Despite the fact that this observation appears obvious to most present thinkers, it was not until the end of World War II that countries of the third, fourth and fifth world were viewed as something more than untapped reservoirs of untapped natural wealth.

With the more recent moves toward independence by LDCs, the DCs are no longer able to blatantly exploit the resource wealth of the LDCs without offering some assistance to improve the basic conditions in the country. Richard Bailey outlines the problem this way,

"The basic problem of most of the underdeveloped countries is not poverty of natural resources - some of them are far richer than Great Britian and the countries of Western Europe in this respect - but the underdevelopment of human resources"(5)

Thus two different agendas brought the LDCs and DCs together in the task of development; the DCs to gain access to natural resources, to expand markets and for moral reasons, and the LDCs to develop their human resources.

It is a fact that the most basic requirement in the development of human resources is food. In the light of this it soon became apparent to policy makers that the food supplies of LDCs were not adequate to meet the demand. Therefore, the Green Revolution was born. The basic thinking was that if LDCs could increase food yields, they would be able to feed their populations. This, it was felt, could be done through the application of western technology in the LDCs.
The Green Revolution was officially launched when Dr. Norman Borlaug discovered a hybrid variety of wheat that could dramatically improve harvest yields. These new 'high yield varieties' (HYVs) were further refined to make them smaller, more highly responsive to fertilizer, not dependent on day length, and quicker to mature. For example when traditional varieties would grow tall with heavy applications of fertilizer, they would break off because the tops became too heavy for the stalks. However, the HYVs would in contrast grow shorter, stronger, and faster when fertilizer was used. Moreover, they could grow in a wide range of latitudes because despite their limited light requirements, they still produced greater yields per hectare in a much shorter space of time. For example, farmers in Mysore state in India are growing three crops of HYV corn in fourteen months. In other regions of India and Pakistan, farmers can grow rice in the summer and wheat in the winter. These dramatic increases can be seen in the case of Mexican wheat production between 1951-74 in the following graph.
FIGURE 7-1
Gains have also been substantial in India which doubled production in the seven years between 1965 and 1972 as well as in Pakistan where the crop increased 37% between 1967 and 1968.(10)

The extent of the impact of the Green Revolution can be seen in the expansion of Research Centres based solely on the development of HYVs. In 1941 one such research organization existed in Mexico. In 1975 eleven such research organizations existed in Latin America, Africa, and Asia. Their combined budget was increased from $34 million in 1974 to $64 million in 1976 contributed mainly by various private foundations, United Nations organizations, national governments, and the World Bank.(11) An umbrella organization, called the "Consultative
Group on International Agricultural Research"(CGIAR) has been established to coordinate agricultural research and maintain a resource bank, the "International Board for Plant Genetic Resources"(IBPGR), to help provide the physiological resources for research.(12) It should be noted that these organizations do exclude an additional number of private research centres in the field.

The increased investment in research has provided many improvements in LDC agriculture. This has resulted in an increased recognition of the research requirements both on the national and international level. For example, in 1975, the United States Congress passed the "International Development and Food Assistance Act" which authorized more funds for agricultural development and research.(13) Thus agricultural development is considered to be a direct result of research.

The beneficial effect of improved agricultural techniques is conditioned upon the availability of other essential inputs such as, in the case HYVs, water, fertilizer and pesticides.(14) Without irrigation in the case of HYVs, yields could be substantially lowered. Insufficient fertilizer or unchecked diseases could have a similar result. Effective transportation and distribution networks have to also be available to handle the increased production. Systems of credit and investment are required. Education is necessary for the basic implementation of
techniques and their administration. Thus the Green Revolution, as primarily an agricultural revolution, presses inevitably toward the whole issue of economic development. For the Green Revolution then, it is modern economic development which in fact is the means to alleviate hunger and poverty.

Economic Development;

When we speak of economic development in this context we are speaking of a fairly specific type of development. It is a society's ability to expand the quality of life in general as measured by some basic indicators. Some popular conventional indicators of economic development have been the overall growth of the Gross National Product and the rise in the average annual income.\(^{(15)}\) In 1974 an LDC was considered to be any country with an average per capita income, measured in purchasing power, equal to or less than $800 U.S.\(^{(16)}\) Per capita GNP growth is illustrated in the following table for some selected countries.
THE RANGE OF RATES OF PER CAPITA GNP GROWTH  
(ANNUAL GROWTH RATES FOR 1969-70) (17)  

<table>
<thead>
<tr>
<th>LDCs</th>
<th>DCs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Libya</td>
<td>Japan</td>
</tr>
<tr>
<td>20.4%</td>
<td>9.6%</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>USSR</td>
</tr>
<tr>
<td>8.0</td>
<td>5.8</td>
</tr>
<tr>
<td>Rumania</td>
<td>France</td>
</tr>
<tr>
<td>7.7</td>
<td>4.6</td>
</tr>
<tr>
<td>Zambia</td>
<td>Sweden</td>
</tr>
<tr>
<td>7.1</td>
<td>3.8</td>
</tr>
<tr>
<td>South Korea</td>
<td>West Germany</td>
</tr>
<tr>
<td>6.8</td>
<td>3.5</td>
</tr>
<tr>
<td>Greece</td>
<td>United States</td>
</tr>
<tr>
<td>6.6</td>
<td>3.2</td>
</tr>
<tr>
<td>Hungary</td>
<td>Switzerland</td>
</tr>
<tr>
<td>5.4</td>
<td>2.5</td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>4.3</td>
<td>2.2</td>
</tr>
<tr>
<td>Brazil</td>
<td></td>
</tr>
<tr>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td>India</td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td></td>
</tr>
<tr>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Senegal</td>
<td></td>
</tr>
<tr>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Central African Republic</td>
<td></td>
</tr>
<tr>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>Ghana</td>
<td></td>
</tr>
<tr>
<td>-0.4</td>
<td></td>
</tr>
<tr>
<td>Cuba</td>
<td></td>
</tr>
<tr>
<td>-0.6</td>
<td></td>
</tr>
<tr>
<td>Upper Volta</td>
<td></td>
</tr>
<tr>
<td>-0.6</td>
<td></td>
</tr>
<tr>
<td>Yemen</td>
<td></td>
</tr>
<tr>
<td>-5.0</td>
<td></td>
</tr>
</tbody>
</table>

TABLE 7-2  
The following table summarizes some of these general indexes and gives us a picture of the discrepancy between the LDCs and the DCs.

RATES OF GROWTH OF INCOME AND POPULATION IN LDCs AND DCs  
(ANNUAL RATES: RATES OF GROWTH OF INCOME ARE AVERAGES FOR 1970 AND 1971) (18)  

<table>
<thead>
<tr>
<th>LDCs</th>
<th>DCs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current growth rate of income</td>
<td>6.3%</td>
</tr>
<tr>
<td>GNP per capita</td>
<td>$242</td>
</tr>
<tr>
<td>Current growth rate of population</td>
<td>2.5%</td>
</tr>
<tr>
<td>Growth rate of income per capita</td>
<td>3.8%</td>
</tr>
<tr>
<td>Dollars of increase of income per year</td>
<td>$28</td>
</tr>
</tbody>
</table>

TABLE 7-3
The economists Samuelson and Scott have thus, defined a less
developed (or underdeveloped) country as a nation,
"... with real per capita income that is low relative to the
present day per capita incomes of such nations as Canada, the
United States, Great Britain, and Western Europe generally.
Usually an underdeveloped nation is one regarded as being
capable of substantial improvement in its income level."(19)

Economic development is therefore, relative.

This view of development maintains that growth on a general
level results in "trickle down" benefits to the individuals of
the society, not in a predetermined or specific way. It is not,
however, necessarily true that growth on a general level results
in benefits for the general population. Theodore Morgan writes,
"Economic growth does not necessarily bring more happiness
to people....There can be more insecurity, maladjustment, and
alienation in a progressive society where jobs, skills, status,
and social values are subject to relatively rapid change. Some individuals clearly lose through the changes of
economic progress."(20)

Therefore, economic development in this context, is an attempt to
expand the general quality of life by the application of the
established set of economic principles.

Theories of Economic Development;

Theories of economic development must do one of three things. They must (a) focus on one aspect of the economy and disregard
the others, (b) focus on the whole economy and attempt to give
reasons, or (c) pick out strategic aspects to depict reality and
make an attempt to give general reasons.(21) Needless to say,
there are innumerable models for economic development. Theodore Morgan has classified development theories into three basic types; institutional, which looks at social, political, and cultural patterns; physical fact theories, which are concerned with the factors of production; and historical theories that look at the broad base of past experience. We shall briefly illustrate each type to give some feeling of their perspectives and possible implications for policy.

(a) Institutional; social psychology:

David McClelland maintains that economic growth is basically a function of people's "need to achieve" (N-ACH). N-ACH is the desire to improve upon one's existing condition or to do something better than it has been done previously. High N-ACH people are highly motivated people that are willing to risk, are daring, and are basic entrepreneurial types. One indicator of the N-ACH level is the amount of literature produced. Thus a country that produces vast amounts of literature has a high potential for economic growth.

As an example, McClelland cites the Hyderabad experiment in India. Fifty-two local businessmen were put through a training session in which they were taught to think and act like high N-ACH people. Their activity was observed in the two years following and it was discovered that their "entrepreneurial activity" had doubled. (24) Thus, McClelland maintains that
certain motivational factors, conditioned by society, contribute significantly to economic growth.(25)

(b) Physical fact theories;

W.P. Travis maintains that development is a function of productive farm land. Since most of the prime farm land is located between 30 to 50 degrees north latitude, which places it primarily in North America and Western Europe, the countries within that latitude have the greatest potential for development.(26) Nations with productive farm land devote less time to feeding themselves and more to their creative activities of industry and culture.

The less developed countries have a competitive advantage in labour intensive production. Due to 'protectionist' policies of tariffs and trade restrictions, the LDCs are forced to export raw materials, which presents a false picture of their real wealth.(27) Thus, over time, two levels of development will emerge.

(c) Historical theories;

Probably the most reknowned historical theory of development is W.W. Rostow's 'stages of growth' model. This model developed in the late 1950's provides a flexible, detailed and realistic background for understanding the effects of political and social change. Rostow maintains, that the pressures of economic growth are ultimately subordinate to other claims by society. Rostow develops five "stages" to economic growth.(28)
Stage I:

This is the traditional society. Production is limited, in that science and technology are limited, thus imposing a ceiling on output. This is the central feature of what Rostow labels as "pre-Newtonian society", which symbolizes the period prior to the Newtonian watershed in science and technological innovation. Man is manipulated by nature and has not evolved to the point of controlling nature. A very high proportion of resources are devoted to basic agricultural production.

Stage II:

Rostow categorizes this stage as establishing the "preconditions for take-off".(29) In this stage the traditional transforms itself to take advantage of the benefits of technological innovations, and capital is accumulated. There is also a general change in attitudes and values here. Rostow maintains that,

"The idea spreads not merely that economic progress is possible, but that economic progress is a necessary condition for some other purpose, judged to be good; be it national dignity, private profit, the general welfare, or a better life for the children."(30)

Thus the stage is set for Stage III.

Stage III:

This is the "take-off" stage. Rostow defines the "take-off" as "...the interval when the old blocks and resistances to steady growth are overcome....growth becomes the normal condition."(31)
In this period of ten to thirty years there is a sharp increase in the rate of investment from approximately 5% in Stage II to 10% or more of the national income. Industries expand rapidly and re-invest their profits. Agriculture is commercialized. Rostow believes that,

"... revolutionary changes in agricultural productivity are an essential condition for successful take-off; for modernization of a society increases radically its bill for agricultural products."(33)

Thus in the take-off stage the social/political/economic structures are transformed to provide for conditions of sustained growth.

Stage IV:

Following the take-off stage, the fledgling economy struggles to maintain a regular growth rate. Modern technology is expanded into all sectors. Investment is regularized at 10% to 20% of national income. The composition of the economy is transformed. New industries emerge and older industries level off their rate of expansion. After approximately forty years the economy enters into a stage of maturity. Rostow writes,

"Formally, we can define maturity as the stage in which an economy demonstrates the capacity to move beyond the original industries which powered its take-off and to absorb and apply efficiently over a wide range of its resources the most advanced fruits of (then) modern technology."(34)

Stage V:

The final stage of Rostow's model is the "age of high
mass-consumption." Here the society's consumption pattern moves from producer goods and services to consumer goods and services. The population has experienced a rise in average per capita incomes thus increasing the demand for non-essential goods. There is a rise in the urban population resultant from the increased demand for labour in the cities and the modernization of the agricultural sector. The objective of the society at this stage in development is not merely the expansion of technology, but rather the improvement of the general welfare of the society through such programs as social security, health care, unemployment insurance, workman's compensation and the like.

After the stage of 'high mass-consumption', then, what will happen? Rostow believes that is difficult to determine since no country has emerged to that point of development as yet. Nevertheless, while Rostow's stages of development model rests in a large part on the European and American experience, this model does provide some useful categories for understanding the nature of "underdevelopment". The less developed countries are those existing in the "pre-Newtonian" or "preconditions for take-off" stages.(35) Moreover, though not exhaustive, they do provide some insight into understanding development as growth. In all these models "economic growth" is the assumed aim of all policies.
At this point it should be underscored that these theoretical models only provide a tentative basis by which to view the process of development. Economics is not as precise a science as physics or chemistry where established laws are universally applicable to reality. Economics involves a system of thought that gives a perspective on reality. John Maynard Keynes supports this view when he said,

"The theory of economics does not furnish a body of settled conclusions immediately applicable to policy. It is a method rather than a doctrine, an apparatus of the mind, a technique of thinking, which helps its possessor draw correct conclusions."(36)

Consequently, these theories of economic development are a general frame of reference, a perspective, through which, the economist views a particular situation and applies a particular set of policies. It is clear that stagnation, no growth, stands outside of these theories. It reflects an unfulfilled state. Thus without economic growth, stagnation is a resultant condition. This state of stagnation is present in the reality of poverty and hunger.

What types of policies should be implemented to foster economic growth? At this point the path to take is a little less certain. Viewing the present process of development, it appears that there are basically three policy directions; symbolic modernization, maximized economic growth, and selective economic growth.(37)
Symbolic Modernization;

These policies are designed to "...give the developing countries the aspect, though not necessarily the substance, of development."

(38) The trappings of developed nations are imitated and the status symbols of development appear in key sectors: massive hydro-electric projects, an airline, modern government buildings, high profile diplomatic missions, a steel mill, etc. Thus the country assumes some of the appearances of a developed nation.

The ultimate hope is that by providing some of the essential trappings of development, the LDC will establish some of the "preconditions for take-off". Certain sectors take on symbolic value for development. This may mean that leaders of small recently independent countries will attempt to instill pride in the nation by building impressive government buildings. Professor H.G. Johnson explains that,

"...nationalistic economic policy will tend to foster activities selected for their symbolic value in terms of national identity and the economic content of nationhood; in particular, emphasis will be placed on manufacturing; and within manufacturing on certain industries possessing special value symbolic of industrial competence." (39)

This may be considered by some to be an optimistic view of symbolic modernization when one observes the present dramatic rise in military spending by many LDCs.

On a more mundane level, some forms of symbolic modernization
may result in projects that do not enhance development but rather increase the burden on the people by draining their essential foreign reserves and tax funds to pay for expensive luxuries. One clear example is the dramatic increase in military expenditures. Granted there exists conflicts in many LDC areas such as in Africa where a recent estimate was that one third of the continent was engaged in a war, however the fastest growing items in LDC budgets are for military expenditures. (40) Between 1960 and 1973, LDC military expenditures rose from 6.6% of world military expenditure to 14.4% of the world total. (41) The following table illustrates the growth rate of military expenditures relative to some other indicators.

**AVERAGE ANNUAL GROWTH RATES, 1961-70 (42)**

<table>
<thead>
<tr>
<th>Values in Constant Prices</th>
<th>World</th>
<th>DCs</th>
<th>LDCs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Military Expenditures</td>
<td>3.2</td>
<td>2.6</td>
<td>8.0</td>
</tr>
<tr>
<td>GNP</td>
<td>4.8</td>
<td>4.8</td>
<td>4.7</td>
</tr>
<tr>
<td>GNP per capita</td>
<td>2.7</td>
<td>3.7</td>
<td>2.2</td>
</tr>
<tr>
<td>Public Education</td>
<td>7.9</td>
<td>8.0</td>
<td>7.5</td>
</tr>
<tr>
<td>Public Health</td>
<td>5.9</td>
<td>6.2</td>
<td>2.0</td>
</tr>
<tr>
<td>Armed Forces</td>
<td>2.2</td>
<td>0.8</td>
<td>3.3</td>
</tr>
<tr>
<td>Population</td>
<td>2.0</td>
<td>1.1</td>
<td>2.4</td>
</tr>
</tbody>
</table>

**TABLE 7-4**

Symbolic modernization attempts to develop a strong infrastructure by providing 'key seeds' to spur development. The ultimate aim is to provide "external economies" that are beneficial to the whole nation. A road or railroad is of benefit to more than just the man who owns it. It allows other development projects to occur in a particular region. Professor
Paul Rosenstein-Rodan has labeled these developments that provide an infrastructure as "social overhead capital", which individuals alone can not provide but which are essential for development. (43)

Symbolic modernization is based upon planting "key seeds" for development. These "key seeds" are deduced from an overall perception of what characterizes a "developed" country. In a real sense, these "key seeds" are a picture of a DC borrowed and applied to an LDC. The essential difference between symbolic and, what later will be refered to as "selective growth" is the "planning". Selective growth is an inductive process. A decision is made to focus on a key sector of the economy to capitalize on the competitive advantage that sector would have in the world market. Michael Harrington points to the mixed blessings of this approach when he writes,

"Writing on the basis of 1966 figures, Samir Amin estimated that of $35 billion in underdeveloped country exports, $26 billion, or just under 75 percent came from ultra-modern sectors. A brand new, highly innovative plant will have a cumulative and integrated expansionary effect in the United States; in India or even in Brazil, it will create an enclave of modernity, and the "spread effects" will be limited." (44)

A recent example of one such project that attempts to capitalize upon the "symbolic effect" is the Turcurui Dam Project in Brazil. Deep within the jungle, this dam on the Amazon River will provide hydro-electric power for the city of Belem where Bauxite is to be processed. Ultimately, there will be a planned
community of 65,000 with educational facilities, health care clinics, and housing. (45) It would appear that Turcurui is an example of symbolic modernization in that it is designed as an "enclave of modernity" to generate need foreign capital through Bauxite mining and give the appearance of a developed country in the midst of the Amazon jungle. Thus through this symbol for modernization the Brazilian government hopes to open for development one of its more sparsely settled regions.

Symbolic modernization has its positive and negative points. The belief that by providing some of the key sectors with the 'preconditions for take-off', may work in some selected instances. There is, however, a heavy reliance on the "trickle down" or "spreading" effect and this may not materialize. As well there is a high degree of dependence upon the insight of the leadership to choose the appropriate symbols. Thus as Galbraith concludes,

"As it would be unwise to deny a role for symbolic modernization, so it would be unwise to accord it unqualified approval." (46)

Maximized Economic Growth:

In this framework, the goal of economic growth is to achieve the greatest possible increase in the total and per capita Gross National Product and Income. The prime objective is to increase output, the exact nature of the output is secondary. Investment resources are thereby directed toward those areas that will
increase output. Usually then, investment is directed to building an industrial base, which of course requires massive capital.\(^{(47)}\)

This model of increasing industrial production has been adopted by a number of developing countries. The fastest way to increase output and national income is by increasing commodity production. A good indicator of the importance placed upon commodity production is the percentage of investment directed toward this sector. The following table shows how governments of selected LDCs invest more in commodity production than for basic facilities and services.

**PLANNED DISTRIBUTION OF PUBLIC INVESTMENT IN SELECTED LDCS, MID-60'S\(^{(48)}\)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Commodity Production</th>
<th>Basic Facilities</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egypt</td>
<td>55%</td>
<td>25%</td>
<td>20%</td>
</tr>
<tr>
<td>India</td>
<td>48%</td>
<td>42%</td>
<td>10%</td>
</tr>
<tr>
<td>Pakistan</td>
<td>48%</td>
<td>29%</td>
<td>23%</td>
</tr>
<tr>
<td>Ceylon</td>
<td>47%</td>
<td>30%</td>
<td>23%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>30%</td>
<td>39%</td>
<td>31%</td>
</tr>
<tr>
<td>Burma</td>
<td>24%</td>
<td>69%</td>
<td>7%</td>
</tr>
</tbody>
</table>

**TABLE 7-5**

Some of the governments of LDCs view their role as one of sparking private enterprise to undertake the development of their country. If we view the investment trends of private enterprise in the following table, we can see that generally development by maximizing economic growth is done by industrializing, thus the high rate of investment in petroleum, manufacturing, and mining. In the case of Asia, the figures show that trade and agriculture
displaced mining as modes for development. However, it should be noted that more than half (58.2%) of overall private investment is directed to industrializing.

**SECTORAL DISTRIBUTION OF PRIVATE INVESTMENT STOCKS IN LDCs, 1967**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Africa</th>
<th>W. Hemisphere</th>
<th>Asia</th>
<th>Mid. East</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum</td>
<td>39.4%</td>
<td>24.3%</td>
<td>22.1%</td>
<td>89.5%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>18.8%</td>
<td>39.1%</td>
<td>31.0%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Mining</td>
<td>19.4%</td>
<td>10.9%</td>
<td>5.1%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Trade</td>
<td>6.0%</td>
<td>9.0%</td>
<td>10.1%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>7.5%</td>
<td>3.3%</td>
<td>18.8%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Public Utilities</td>
<td>1.0%</td>
<td>7.4%</td>
<td>2.4%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Others</td>
<td>8.9%</td>
<td>9.0%</td>
<td>10.5%</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

**TABLE 7-6**

The criterion for maximized economic growth therefore, is to increase income and output via industrialization at the fastest possible rate. In comparison to symbolic modernization, maximized economic growth projects the 'reality' of economic development as opposed to the mere 'image' of development. In Rostow's model, the emphasis is on launching the "take-off". In Travis' model, the LDCs are encouraged to exploit their competitive advantage of cheap labour and resources.

**Selective Growth:**

In a modern context maximized economic growth is not necessarily a real possibility. This may be true for one of two reasons; (a) the LDC is unable to generate enough investment or (b) the international scene will render investment in a number of sectors unprofitable. Thus an alternative approach is selective growth.
In the framework of selective growth, decision makers choose key sectors of the economy and attempt to invest their resources in them to make them profitable and competitive on world markets. This in turn generates "spin-offs" for the economy primarily by accumulating a reservoir of savings that can be 'plowed back' into the development of other sectors. MacBean writes,

"Specialization brings possibilities of an improvement in skill, raising the productivity of the work force. It permits the realization of economies of scale in the export industries. Trade brings contacts between the local producers and foreigners allowing an interchange of ideas useful in commerce, finance, and production. These ideas may spread throughout the export sector and to other areas of the economy, stimulating improvements in efficiency in these activities."(50)

Selective growth involves choosing a target sector for development and encouraging a "rippling effect".

The central feature of selective growth is that it involves specific planning. Symbolic modernization was based on developing an imitated western image. Maximized economic growth involved planning only insofar as the infrastructure was concerned, not with respect to the commodity produced. Selective growth requires a specific plan to develop a designated sector of the economy. Galbraith maintains that there are three important elements to a good selective growth plan; (a) It must be pragmatic and workable, (b) It must accommodate the level of economic and cultural activity (ie. consider the nature of the existing infrastructure) and (c) It must have a sense of strategy
(ie. where to place investments). (51) It should be noted that the 'plan' for selective growth may not be one orchestrated prior to undertaking development. It may be one discovered in the process of development.

One of the best examples of planning a policy for selective growth was the establishment of the Organization of Petroleum Exporting Countries (OPEC) in 1971. (52) The stage was initially set by the development of oil resources to meet the growing demand for energy by the DCs via large scale investments in the late 1960's. In this way the OPEC nations were placed in a position where they could exploit a natural advantage.

With the oil embargo between October 1973 and January 1974, the price of oil sky-rocketed nearly 300%! (53) The impact of this price increase had the impact of altering the flow of international payments and power on the international level. In 1974 the OPEC nations earned $75 billion more than they had previously. (54) It was impossible for the OPEC nations to absorb such an influx of capital and thus, most of these 'petro-dollars' were reinvested in North American and European enterprises further enhancing the power of OPEC leaders. Attempts were made to break the cartel, however, it soon became clear that the "OPEC revolution" had permanently altered the structures of power between the DCs and at least some LDCs. (55)
This is not to say however, that the OPEC nations are now developed. The possibility for development does seem more realistic. What remains to be seen in the OPEC nations is whether or not a 'spill-over' of investment will occur in other sectors.

Selective growth is a risky proposition. The success of the OPEC nations was a result of the extreme dependence of the DCs on oil as a source of energy. Other LDCs have not been as fortunate. In these cases, their economic advantage has always been in products where the demand is more elastic (i.e., bananas, rubber, jute, coffee etc.) For example, in Latin America there is a high dependence on bananas for foreign exchange earnings for investment. Yet the price of bananas has fallen 30% in the past twenty years. In 1960 a tractor cost the equivalent of 3 tons of bananas. In 1970 the same tractor cost the equivalent of 11 tons of bananas. (56) The same is true for Bangladesh which relies on jute for exchange earnings that is now being replaced by synthetics produced in DCs.

Policies that are designed for selective growth can provide some LDCs with an opportunity for economic development. However, the stakes are high concerning the effectiveness of the 'plan' to generate the necessary funds for investment and require decision makers who can distribute these funds via investment to appropriate sectors of the economy.
The Viability of Green Revolution policies:

How viable are the policies of the Green Revolution to alleviate hunger? The contention of this school is that hunger results from poverty which is alleviated by the process of development. Thus the main thrust of policies of this type are to maximize economic growth. Symbolic modernization and selective growth are merely the 'backdoor' to achieve the same goals of growth.

The Green Revolution is primarily concerned with growth. Thus it focuses on the importance of self-creativity as the dynamic of life. The central thrust of the Green Revolution policies is to overcome stagnation by enhancing societal facility, functional adequacy, and group compliance.

Societal facility;

Societal facility was defined earlier as the degree to which there exists in a society the structures, processes, and services that can actualize and facilitate the society's ability to grow. This may be termed the infrastructure for growth. One of the major obstacles perpetuating stagnation in LDCs has been the conspicuous absence of this necessary infrastructure for production. Consequently, societal facility has been limited. Green Revolution policies have endeavored to improve societal facility.
One of the most basic elements of societal facility is food. If a nation is unable to feed itself, it may have difficulty moving beyond the limitations of the present context. One of Rostow's key components for development was the commercialization of the agricultural sector, to free labour and resources for industrialization. Thus a primary aim of the Green Revolution was to increase the ability of a country to produce food.

The Green Revolution has met with some success in improving the societal facility of certain countries. By the late sixties, for example, the Phillipines was able to achieve self-sufficiency in rice and Mexico was a net-exporter of wheat. There were significant improvements in India, Pakistan, Turkey, Indonesia, and Malaysia. (57) Thus as Cary Fowler maintains,

"In 1972, the kick-off year of the so-called food crisis, 9.5% more food was produced per capita in industrialized countries than in 1960, and this was also true for underdeveloped nations." (58)

Thus it would appear that the Green Revolution has been able to increase the production of food.

The Green Revolution, also, encourages the transfer of technology. Paul Erhlich believes "...the LDCs do, however, have the advantage of access to the technological expertise of the DCs." (59) This advantage can have a positive impact and enhance the societal facility. For example, one study found that it cost 495 rupees to pump ten acre-inches of water by hand. The
use of draft animals reduced the cost to 345 rupees. The introduction of a small diesel engine cut the cost to only 60 rupees and freed labour to do the weeding, planting, fertilizing, and other chores. (60) Taiwan has encouraged farmers to plant three to four crops a year by improving the seed bed preparation by the use of Japanese style motorized tillers. (61)

However despite the positive emphasis of these policies, they can also become self-serving. More specifically, while the dramatic increase we have seen previously in military expenditures in LDCs when compared to health and education, does indicate that some societal facility has been enhanced and growth has resulted. This is only the case if the concept of growth is narrowly defined. For Green Revolution policies to fully enhance societal facility provided there must be a broader understanding of growth, one that is informed by what this study has referred to as "functional adequacy" and "group compliance". In this regard Lester Brown notes:

"There are few countries in the world that cannot effectively employ at least some of the new varieties of wheat or rice, given the available technologies; supporting institutions to provide credit, seeds, fertilizer, and marketing facilities; and economic incentives to encourage use of the new varieties." (62)

Thus it does appear that the Green Revolution policies do serve to enhance societal facility as evidenced at the most basic level of food production.
Functional adequacy:

Functional adequacy can be defined as the ability of the existing structures and services to transform and modify themselves. More specifically it asks, "Does the existing structure have the power to enable the society to use its resource base for growth? The central focus here is on the ability of the LDCs to develop. If functional adequacy is to be enhanced, then per capita GNP, investment, enrollment in educational programs, and the level of technological development should increase. Green Revolution policies have attempted to enhance the transformative capacity of LDCs.

The Green Revolution policies address the question of functional adequacy by endeavoring to increase food production. People who are insufficiently nourished develop a distorted perspective on reality. Malnourished peoples are obsessed with the basic essentials of survival on Maslow's "hierarchy of needs". Traditionally, the so-called 'inferior races' that were observed to be 'lazy', 'shiftless', and 'non-productive', were in fact the "starved races".(63) It has been observed within rats, that when they are starved they become wild and ferocious. Thus societies that have traditionally been hungry or malnourished, have experienced the "dulling" "...of man's other vital interests", which in turn limits their transformative capacity.(64)
A prime objective in enhancing functional adequacy is the improvement of the literacy of the population. Countries with a low literacy level among the adult population have a restricted ability to expand their resource base since the expansion of the economy rests largely on the presence of educated persons who understand the basic economic possibilities that are present in the society. The degree to which the populace understands the new techniques helps to avoid the imposition of techniques which are not suited to the society. In DCs 97% of the population is considered literate compared to only 41% in LDCs. (65)

Green Revolution policies endeavor to redress the problem of illiteracy. One indication of this trend is the rise in enrollment and the growth of the number of teachers in LDCs. Estimates of students, ages 5-18, in educational institutions has risen to 38%. (66) Needless to say this is well below the figure of 77% for the DCs. However it does indicate a trend toward improvement. The following table indicates the growth of student enrollment and teaching staff.
GROWTH IN SCHOOL ENROLLMENT AND TEACHING STAFF IN LDCs, 1960-71 (67)

<table>
<thead>
<tr>
<th>Region</th>
<th>Primary Level</th>
<th>Secondary Level</th>
<th>Tertiary Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>E</td>
<td>T</td>
<td>E</td>
</tr>
<tr>
<td>LDCs</td>
<td>174</td>
<td>159</td>
<td>249</td>
</tr>
<tr>
<td>Latin America</td>
<td>168</td>
<td>181</td>
<td>297</td>
</tr>
<tr>
<td>Africa</td>
<td>177</td>
<td>174</td>
<td>252</td>
</tr>
<tr>
<td>Asia</td>
<td>162</td>
<td>144</td>
<td>179</td>
</tr>
<tr>
<td>Arab countries</td>
<td>185</td>
<td>219</td>
<td>297</td>
</tr>
<tr>
<td>Rest of the world</td>
<td>114</td>
<td>129</td>
<td>142</td>
</tr>
</tbody>
</table>

TABLE 7-7

When we view the 7.5% rate of growth in investment in public education in LDCs, compared to 8% in the DCs, we can see the recognized press among LDCs to enhance their functional adequacy. (68) This is further supported by the per capita growth rate of Gross Domestic Product which among LDCs is 2.2% between 1950 and 1967, equal to that of North America. (69) In real terms the disparities between the LDCs and DCs still remain very great, however, Green Revolution policies do appear to enhance the functional adequacy of LDC societies.

Group compliance;

Group compliance is the measure of a society's ability for stable change. It is the means by which a society bridges the gap between past traditions and present changes. This sense of continuity is vital for a people's move from their past to their future. Societies as a whole must adopt some form of
organizational structure to coordinate their activities and to implement group decisions. When such structures do not exist or are not able to insure the actualization of these functions, the process of development is hampered.

There are basically two methods of establishing group compliance. The first is through a democratic process and the second through enforced compliance. In the DCs, the democratic process appears as the most natural and desirable. However, because democracy presupposes a high level of literacy, that form of compliance in LDCs may be ineffective in its pure form. In reality in many LDCs, compliance requires the use of a higher degree of directive as opposed to indirective methods. Rostow maintains, with respect to economic development, that it is important as a "precondition for Take-off" that,

"...the idea spreads not merely that economic progress is possible, but that economic progress is a necessary condition for some other purpose judged to be good."(70)

Thus, group compliance is necessary for economic development.

The problem in many LDCs is the conflicting agendas for what for what is considered 'good' development policy. In Africa, as we have already noticed, an estimated one third of the fifty one nations are embroiled in some type of military conflict. The recent reports of the civil war in Zaire and Ethiopia indicate to some extent, the conflicting agendas by the various groups for the development of those countries. Thus for development to
occur at the present time in those areas some degree of enforced group compliance will be necessary. The danger is that this can result in an increase in the military conflict and likewise inhibit development.

It is not surprising therefore, that in many LDCs, enforced group compliance has been adopted to allow for development. One approach to measure the level of enforced group compliance was reported in "Time" magazine. Three general indicators (per capita Gross National Product, the physical Quality of Life Index, and a Political Freedom Index) were reported together to give some picture of the relationship between the overall quality of life and the level of political freedom. Although it reflects one perspective, it is an attempt to give a general view of the level of enforced group compliance. In Table 7-8, although there are a few exceptions, it would appear that a significant number of LDCs (strictly defined as having per capita GNP at equal to or less than $800 U.S.) with a low per capita GNP and a low physical Quality of Life Index, exhibited a correspondingly lower level of political freedom than in Canada.(71)
TABLE 7-8

Thus it would appear in LDCs adopting policies of the Green Revolution style, a degree of enforced group compliance, as evidenced by the low Political Freedom Index levels in a number of LDCs, is necessary to allow growth to occur. Some reaction will be generated abhorring the reduction of political freedoms as a justification for transnational capitalist exploitation. However, it should be remembered that both the USSR (PFI=8) and China (PFI=17) have made significant progress in development by enforcing at critical stages group compliance. General acceptance of some basic bureaucratic forms is therefore, necessary for development to occur. Such forms may not always be the most economically effective if they take the shape of a democracy.

It appears that Green Revolution policies do encourage
self-creativity and growth. They improve societal facility, engender functional adequacy, and maintain group compliance. Effective economic development policies may not completely eliminate hunger and poverty, but they do redress the threat of stagnation which impedes self-creativity and growth.

Chapter 7 has provided a general description of the policies developed to address the threat of stagnation. Generally, the Green Revolution policies that affirm the element of growth have adequately tackled the threat of stagnation. Therefore, since this need is adequately addressed, it would not appear that these policies should be the major focus for overcoming the impasse. However, if the threat of disintegration and stagnation are not the most pressing needs to be addressed, is the present injustice the result of the threat of alienation? In Chapters 8 and 9, we will look at this possibility in more detail.
FOOTNOTES FOR CHAPTER 7

1 Ramparts, July 1975, p.54.

2 Bailey, p.11.

3 Roche, p.42.


5 Bailey, p.157.

6 Ibid.

7 Brown, p.134.

8 Erhlich, p.331.

9 Brown, p.139.

10 Erhlich, p.331.

11 Erhlich, p.324.
12 Ibid.

13 Ibid.

14 Ramparts, July 1975, p.54.

15 Morgan, p.21.

16 Ibid.

17 Ibid.

18 Ibid., p.20.

19 Samuelson and Scott, p.846.

20 Morgan, p.28.

21 Ibid.

22 Ibid., p.96.

23 Ibid.

26 Morgan, p. 96.

27 Ibid.

28 Rostow, p. 4.

29 Ibid., p. 6.

30 Ibid.

31 Ibid., p. 7.

32 Ibid.

33 Ibid., p. 8.

34 Ibid., p. 10

36 MacBean, p.237.


38 Ibid.

39 MacBean, p.39.


41 MacBean, p.24.

42 Ibid.

43 Samuelson and Scott, p.854.

44 Harrington, M., *The Vast Majority*, p.132.


47 Ibid.

47 Morgan, p.363.

48 MacBean, p.86.

49 Ibid., p.198.

50 Ibid., p.161.

51 Galbraith, J.K., Economic Development, p.68.

52 Erhlich, p.892.

53 Ibid., p.893.

54 Ibid., p.895.

55 Ibid.
56 Roche, p.32.

57 Brown, p.137.


59 Erhlich, p.901.

60 Brown, p.218.

61 Ibid.

62 Ibid., p.146.

63 Castro, p.63.

64 Ibid.

65 Morgan, p.17

66 Ibid.

67 MacBean, p44.
Time has gathered these indexes from a number of different sources. "Per Capita Gross National Product" is a widely accepted barometer of economic achievement. The figures here come from the World Bank. The "Physical Quality of Life Index" is a measure of the effectiveness of social services. It was developed by the Overseas Development Council which is a Washington, D.C. based study centre. It includes such factors as life expectancy, literacy, and infant mortality. The "Political Freedom Index" is a measure of a nation's respect for liberty, from studies of civil and political rights prepared by the Manhattan-based Freedom House.
CHAPTER 8 THE NEW ECONOMIC ORDER OPTION

To this point in the study we have seen that Neo-Malthusian and Green Revolution policies do address the problem of world hunger. Neo-Malthusian policies of population control do redress the threat of disintegration. Green Revolution policies do redress the threat of stagnation.

Policies of population control and food aid have historically been the oldest strategy to alleviate the impasse to human fulfillment presented by hunger. There are examples of food aid in the Bible in the story of Joseph and the efforts of Paul to collect relief money for the Christian community in Jerusalem. The United States first involved itself with food aid when it approved a budget of $50,000 to Venezuelan victims of an earthquake in 1812 (1). Canada's first large scale involvement in the "Third World" occurred in 1951 with the shipment of $10 million of food relief to India.(2) The fears of over-population and limited food supplies have certainly been present for a number of years. Neo-Malthusian policies have provided one way of addressing the threat of disintegration or extinction by seeking to enhance group cohesiveness, enabling vocational consciousness, and encouraging strong leadership. However, Neo-Malthusian strategies fall short of alleviating the hunger
impasse since they do not address the threat of stagnation or alienation characterized by limited societal facility, functional adequacy, group compliance, creative interaction, group participation, and mutual responsibility. The Chinese have expressed this inadequacy when they said,

"The poor countries have not always been poor. Nor are they poor because they have too many people. They are poor because they have been plundered and exploited by imperialism."(3)

Thus, the Chinese point to the threat of alienation as a prime exigency that has resulted in hunger. Thus these policies only provide a part of the necessary solution to surmount the hunger impasse.

Policies involving economic development, Green Revolution strategies, likewise only provide a part of the answer. Historically, the Green Revolution began in 1941 when the Rockefeller Foundation and the Camacho government of Mexico began discussions on the means of transferring technical resources.(4) However, it was not until the late 1950's and early 1960's that the successes of Green Revolution technology were projected as the solution to the impasse of hunger.(5) Surmounting the hunger impasse via economic development does redress the threat of stagnation by enhancing societal facility, functional adequacy, and group compliance. However, its weakness lies in its corresponding inability to address the threat of disintegration,
characterized by the lack of group cohesiveness, vocational consciousness, and strong leadership as well as the threat of alienation characterized by the lack of creative interaction, group participation, and mutual responsibility. Thus, it too, only addresses a part of the problem. Lester Brown, a leading advocate of the Green Revolution, admits the threat presently posed by alienation. He writes,

"Both conventional wisdom and economics have long held that the more the rich countries consume, the greater the markets will be for products of the developing countries. This is true in some situations, but only to a degree. If the supply of a given resource cannot be expanded easily, continuing growth in consumption in the affluent countries will drive prices beyond the reach of the poor countries." (6)

therefore,

"In sum the green revolution does not represent a solution to the food problem; rather it has been a means of buying time - perhaps an additional fifteen years...." (7)

Together, these policies, the Neo-Malthusian and the Green Revolution, have addressed a portion of what is needed for human fulfillment and alleviating world hunger. They have addressed the threat of disintegration and stagnation. However, they have not addressed the threat of alienation which is becoming an ever more apparent obstacle to alleviating hunger. Thus we arrive at a necessary third strategy which can adequately redress the threat of alienation. We have referred to this strategy as the New Economic Order option, since it presses beyond the limitations of present economic conventions to the basic "ethos" of modern society.
In terms of this study, the New Economic Order strategy seeks to enhance the characteristics of "creative interaction", "group participation", and "mutual responsibility" to redress the threat of alienation, a threat that was not directly addressed by either the Neo-Malthusian or the Green Revolution strategies. In pursuing this, the New Economic Order policies, like the Green Revolution policies, seek to redress the threat of alienation through economic development. However, the character is different. It is an attempt to expand quality of life more specifically, that is not just in the aggregate, by generating and applying new economic principles. Bishop Peter Sarpong of Ghana points to this subtle, but vital, difference when he said,

"You must stop thinking of us in Black Africa as underdeveloped. We are developed! What we want is liberation."(8)

Thus, this approach calls for the establishment of a new world "ethos" for development that seeks to redress the threat of alienation. The onus of this strategy is on the 'vision' of society. It is founded on the human ability to go beyond the present context and reconcile 'what is' with 'what ought to be'. The aim here, is to change those values of the present ethos which inform the basic prescriptions that initially generated the disparities between the LDCs and the DCs.
The Present Ethos;

By far, the most dominant figures in the process of development today are the technically sophisticated North American and European countries. While it is true that the Soviet Union, China, and the OPEC nations are also playing an increasingly important role in this area. Nevertheless in terms of food aid and modern technical aid, North America and Western Europe provide the lion's share. It is not surprising, therefore, to see an international ethos which strongly reflects aspects of the ethos of the capitalist countries, principally the profit motive.

Max Weber in his famous study of the "Protestant Ethic", undertook the study of the evolution of the basic 'ethic' of western capitalist society. Weber wanted to understand the "morale" (Geist) behind capitalism. For him, it was not purely economic determinism, but resulted in a multiplicity of factors; social, political, religious, etc.. Weber believed that the 'profit motive' was indelibly imprinted on the capitalist model of Puritanism. Man was called to a "vocation".(9) In his vocation man was to be productive, a good steward. The ultimate mark of productivity was 'private profitableness'(10). The Puritan writer, Richard Baxter, supports this when he writes,

"If God shows you a way in which you may lawfully get more than in another way (without wrong to your soul or any other), if you refuse this, and choose the less gainful way, you cross one of the ends of your calling, and refuse to be
Thus, profit is tied to righteousness. Over the years, this view of profit has lost its religious trappings, although not its religious compulsion. The maximization of profits is not just desirable, but it is a dire necessity.

The compulsion to earn the greatest possible return on investments has persisted to the present time in the basic ethos of capitalist societies. Profit has been described as "the carrot on the stick", the incentive, which encourages enterprises and entrepreneurs to mobilize resources by the most efficient means.(12) As an essential part of the capitalist ethos, it has been utilized as a criterion for undertaking and evaluating the development process. Thus Paul Samuelson maintains,

"Each project should have calculated for it a percentage rate of return per annum: then a hydro-electric project that yields 20 per cent per annum ought to get done before a short-lived steam project that yields only 5 per cent per annum...."(13)

This concept of profit has been applied in broader ways as well. We now turn our attention to the case of foreign aid and private agricultural enterprise and the effects of this profit element of the capitalist ethos on the process of development.

The Effect of the Profit Motive on Foreign Aid;

Aid may be defined as the "...flows of finance at concessional rates of interest and repayment terms which are not
explicitly for commercial gain or military purposes."(14) However, aid remains basically an investment proposition. MacBean points out that aid resembles normal commercial transactions more so than a 'gift' with no strings attached.(14)

Food aid has played an important role in profiting the United States, the primary donor. The criterion for dispensing food aid under Public Law 480 is not need but self-interest as former Secretary of State, Thomas Enders, testified,

"Few would argue that our programs are designed to achieve both ends (political and humanitarian). All the countries we assist with PL-480 are developing; all are relatively poor; all have deficient dietary standards; many are threatened with disaster, either natural or through war; all have major food needs. The question is not to choose between Korea and Pakistan, between Vietnam and Cambodia, between Chile and India. The question is how to find a basis on which our national interests can be served in each country."(16)

There are serious questions that must be asked concerning the nature of 'national interests' of particular countries. 'National interests' in most cases, mean corporate interests. Forbes, the business magazine, reported that the United States,

"...put food shipments to India on a month to month basis until that country agreed to let Standard Oil of Indiana, which produces fertilizer, market that fertilizer at Standard's price. Late in 1967, AID (the U.S. Agency for International Development) requested $50 million so that India could buy fertilizer, with the stated purpose of helping U.S. oil companies."(17)

This hardly seems to be a direct protection of national interests. However it does reflect a key assumption of the DC
governments that expansion of markets for transnational corporations fosters growth which is in the national interest.

The prime instrument for food aid, in the case of the U.S., has been Public Law 480 passed by the Congress in 1954. (18) This act as well reflects the mercantile idea of growth through the expansion of markets. The bill includes this stated purpose;

"An act to increase the consumption of United States' agricultural commodities in foreign countries...."(19)

Thus, food aid is not really given away but rather it is sold at the prevailing prices, and the funds that are generated must be spent in the donor countries. This is known as "tied aid."(20)

Tied aid has a particularly devastating impact upon LDCs. Professor Bauer states that, "...Foreign aid is plainly not indispensible to economic progress and is indeed likely to obstruct it."(21) Under PL-480, this may have tended to be the case since the law was designed to accomplish two things for LDCs; (a) to increase their food imports from the United States and (b) to undertake no actions that will displace the U.S. commercial exports to that country. The ultimate effects of such a policy only serve to reinforce a position of underdevelopment. Michael Hudson in the Myth of Aid describes the effect,

"Neither farm sectors nor balance of payments position is helped. They (LDCs) are contractually obligated not to implement policies of agricultural self-sufficiency and must enter into agreements assuring the United States a guaranteed future share of their domestic markets."(22)
It has been estimated that a 10% increase in per capita income in LDCs receiving food aid, results in 21% more sales of U.S. farm products. The sale of farm products overseas has kept the U.S.'s balance of payments picture favorable in recent years. In 1972, the $9.4 billion was not enough to offset a trade deficit. But in 1973, at the height of the food crisis, U.S. agricultural exports doubled to $17.6 billion, producing a $10 billion trade surplus. It is not very difficult to see that it is very important to the U.S. to increase agricultural sales.

When one looks at the world picture, the U.S. aid policy reflects a general trend. The World Bank reported that total aid commitments from the Organization for Economic Cooperation and Development, governments, and private sources, totalled $25.5 billion in 1975. Of this amount, $13.5 billion came from governments, half of which was loaned at low interest over a long term. $9.5 billion had to be spent in the donor countries (i.e. it was "tied"). The remaining $5.3 billion was 'untied' aid. The present situation in Canada reflects this general trend. Eighty percent of the bi-lateral funds of the Canadian International Development Agency are 'tied' to the provision of Canadian advisors and materials. Tied aid seems to have achieved general usage in the development programs offered by the DCs to the LDCs.
The Effects of the Profit Motive 'a la' Agribusiness;

As we have already implied, often 'private enterprise' is seen to play an instrumental role in the development process. In many cases private corporations can provide the technical and managerial ability far more efficiently than governments. In the case of the modern transnational corporations, they do provide technical and managerial expertise. However, this expertise may not be fully suited to the needs of the recipient country and in all likelihood will be expensive.

Agribusiness is that group of transnationals that is involved in "...all production and distribution of farm supplies, production operations on farms, and the storage, processing, and distribution of farm commodities and processed foods."(29) At this time, it will be this group that will or will not feed the world population. Like most corporations, agribusiness transnationals pursue the prime objective of growth.(30) Growth requires a strategy that increases production through sales and eliminates any threat to survival from competitors. The criteria of success is profit in the short run and accumulation of assets in the long term. Thus, by definition, transnational agribusiness corporations view the LDCs as primarily expanded markets for sales and are not interested in developing competitors which might threaten their growth and survival.
It is this profit motive of the capitalist ethos which is projected with 'religious enthusiasm' onto the development process in LDCs. In 1967 Louis Lundborg, chairman of the Bank of America, in an address entitled "The Agribusiness Approach", said,

"There is money to be made in agribusiness around the world - profits for the U.S. and host country's agribusiness enterprises and for indigenous farmers and entrepreneurs ... We believe (the profit motive) is the only inducement that can get the job of feeding the world done in the shortest period of time."(32)

This has become a basic creed for the philosophy of development through private enterprise.

This approach is not merely a theoretical belief, but is being effectively practiced on all governmental levels including the United Nations. One of the departments of the UN's bureau, the Food and Agriculture Organization (FAO), is the Industry Cooperative Program (ICP). One of ICP's primary objectives is to "...demonstrate that far-sighted and responsible business contributes to social and economic development by means of fostering profitable private enterprise."(33) The effectiveness of this symbiotic relationship of agribusiness with the ICP, was revealed in the fact that sixty-nine agro-industrial leaders were invited as delegates to the World Food Conference in Rome, a status normally only reserved for national government representatives! In fact the agribusiness delegation was the
largest, out numbering even the U.S.. Moreover, they participated as a group to the point that "...several resolutions were specifically supported by industry."(34) If international government organizations have given over their role in development to private enterprise, one has to question who will be responsible to provide those services which are unprofitable in the short run. For example, what happens to food relief programs?

This system where agribusiness plays such a dominant role reflects strongly a profit orientation. There is a strong attraction to locate in LDCs by many transnationals due to the low factor cost, primarily labour. Castel and Cook, producers of 'Dole' pineapple, have moved the bulk of their Hawaiian operation to the Phillipines, where costs average $0.08 per pineapple. The same pineapple can be resold in Tokyo for $1.50.(35) The net result is not a drop in the price or an increase in the wages to already underpaid workers, but rather increased profits for the corporation. Orville Freeman, former U.S. Secretary of Agriculture, has said that,

"...the fact is that well-run agribusiness projects in some developing countries have returned as much as 30% a year on investment..."(36)

Thus, the difference in the cost of production serves to increase agribusiness profits, and provides them with an incentive to move into LDCs.
The impact of this profit orientation upon LDC economies is most severe. Ultimately the economy is distorted in favour of certain specialized crops or resources. In many cases the development process is aimed at the export market because the local population cannot pay the price. This has resulted in 'cash crop' economies in bananas, coffee, cocoa, peanuts and other commodities. In the case of Costa Rica, cattle production has increased 25%, for export to the U.S..(37) The Globe and Mail in an editorial quoted Susan George to highlight this point,

"As late as 1967, the Sahelian country, Mali, was producing 60,000 tons of food crops. Today locally produced food only amounts to 15,000 tons, while land devoted to cotton and peanuts has increased dramatically. Even so, in Mali, cash crop export revenues do not even cover the price of food imports alone, much less industrial goods."(38)

Thus the profit orientated agribusiness transnational can have an extremely detrimental impact on LDC economies reinforcing the "law of uneven development" which in turn generates poverty and wealth at the same time.(39)

Transnational agribusiness has no intention of feeding the hungry for humanitarian reasons. In reality, they are not very concerned with the welfare of the general population. Gulf and Western, the American conglomerate, entered the Dominican Republic in 1967 and at the present time controls 8% of the cultivated land.(40) In the past few years the amount of sugar cane acreage has doubled while food production has decreased and
food prices have doubled. In March 1974, peasants seized land for food production which was about to be planted in sugar cane. They demanded that the government keep its legal promise to turn land over to the poor. Local merchants provided seed and tools and the people planted a food crop. However, since the landowners wanted to sell their profitable sugar cane to the G & W mill, the army was sent in. The army destroyed the food crops and returned the land to sugar cane production. President Balaguer stated,

"Central Romana (the G&W sugar mill) has a contract and provisions of contracts supercede national law. This is a legal principle (Bosch) should know. (Bosch was the former president who supported the peasants)(41)

Thus Gulf and Western was assured an increase supply of raw sugar cane for processing. This incident reaffirms the callousness of many transnationals toward the welfare of LDC populations.

Much more could be said concerning the dominance of agribusiness on the world scene. However, it is sufficient to point out that agribusiness provides a vehicle by which the profit orientation of the capitalist ethos is exported to LDCs. Profitability is an element that has been adopted on all levels from the United Nations to the Dominican Republic. Its ultimate claim to surmount the hunger impasse through development via private enterprise, appears only as a convenient opportunity to
increase the rate of return on investments. Tom O'Brien, in his book Marrying Malthus and Marx, sums up the difficulty, with this approach to development,

"I am not suggesting that underdevelopment of the third world is the result of international efforts of the developed world, but neither is it the result of misguided benevolent intentions leading to intentionally negative results. The intention of capital is profit, which even when it includes the benevolent belief that profit-for-some can be profit-for-all nevertheless means that without some political mechanism for re-distribution, an ever-widening gap between those who have more capital and those who have less. There is no conscious conspiracy to depress the third world; the unconscious operation of the market has been enough."(42)

This negative contribution by transnationals does not have to be the case. Profitability can be replaced as the ultimate criteria for evaluation. Agribusiness, for example, can make a more positive contribution "...to development if social goals, not merely profitability, were present in the project from the drawing board to the actual operation."(43) It appears that to surmount the hunger impasse, strategies must be developed that aim at the poorest farmers in LDCs, who exist in 'traditional' societies and have been alienated from the 'market system' by the pursuit of profit.

In the next chapter we will examine some strategies that have been developed to address this aim.
FOOTNOTES FOR CHAPTER 8

1 George, p.192.

2 "How much help is Food Aid", Ten Days For World Development.

3 Erhlich, p.770.

4 Ramparts, July 1965, p.54.

5 Ibid.

6 Brown, p.251.

7 Ibid., p.145.

8 Roche, p.41.

9 It was Martin Luther who developed the concept of 'vocation'.

10 Weber, p.162.

11 Ibid. R.H. Tawney maintains that Calvin's liberal
position that encouraged profits heralded the transformation of the fundamental ethos from a Medieval to a modern perspective. (Religion and the Rise of Capitalism, p. 93.)

12 Samuelson and Scott, p. 683.

13 Ibid., p. 857.

14 MacBean, p. 133.

15 Ibid.

16 Ramparts, July 1975, p. 52.

17 Ibid.

18 George, p. 196.

19 Ibid.

20 Ibid.

21 MacBean, p. 134.

22 Ramparts, July 1975, p. 53.
23 George, p.197.

24 Ibid.


26 Ibid.

27 "How much help is Foreign Food Aid", Ten Days for World Development.

28 A similar analysis might be done with the Soviet or Chinese ethos on the development process in LDCs.

29 George, p.158.


31 For a further discussion of the term "profit motive", refer to Susan George's book on page 160.

32 George, p.160.

33 Ibid., p.215.
34 Ibid., p.219.


36 George, p.162.


38 Ten Days For World Development General Publication for 1977.


40 George, p.173.

41 Ibid.

42 Erhlich, p.889.

43 George, p.182. A good example appears in the Mumias Project established by the Kenyan government and the U.K.'s Booker McConnell. Its aim is self-sufficiency in sugar as well as maintaining subsistence farming and providing cash incomes to small farmers.
In the previous chapter, we have suggested that the present ethos of 'profitability' which underlies the present development process has been ineffective in addressing the exigency of alienation. Thus the New Economic Order option must seek to effectively address the needs of the alienated elements of our world, principally the poor! Three groups of strategies do exist which could address the present situation and press to establish a new ethos; the "popular consumption criterion", "organic growth", and a "new international economic order".

Popular Consumption Criterion Strategy;

J.K. Galbraith has suggested that one way to avoid the pitfalls of other development strategies, is to employ the popular consumption criterion. This involves an attempt to raise the effective demand and thus encourage development by providing only those goods and services that would benefit the 'average' model family. It would mean, in the case of India for example, that the major emphasis would be on "...food, clothing, shelter, education, and medicines since these are the dominant items in the economy of the low income family."(1) National decision makers would then undertake policies to facilitate the distribution of these goods and services.
In the majority of LDCs where a considerable percentage of the population lives in 'traditional' or 'pre-Newtonian' societies, the basic principle of popular consumption is translated more specifically into strategies that "...make the limited resources do the most good, with the least destruction of other values (cultural, environmental, etc)"(2) Therefore, small scale irrigation projects or roads which address the immediate needs of a majority of the population and are affordable take precedence over a steel mill or nuclear power plant which may be beyond the means of an LDC and lead to the creation of "enclaves of modernity".

One strong advocate of the popular consumption strategy has been James Kocher who developed the idea of "grass roots development". This concept of development focuses on that group of the population which forms the foundation of the LDC society and is usually the poorest and most displaced by the introduction of mechanized agriculture. Basic and more simplified technology is one approach. Kocher maintains, "...that a necessary pre-condition for egalitarian rural development is the introduction of new agricultural technology."(3)

Western technology has always sought to reduce the labor component of the production process. When such technology is offered to LDC economies it serves to further increase the problem of unemployment by eliminating local industry. In the
Indian state of Kerala, the Norwegian government initiated a fisheries project that effectively undermined the existing fishing industry. They brought to Kerala, modern steel and fiberglass vessels with fancy fish-finding devices and freezer units on board. The net result was that the traditional fishermen could not work the boats, nor could they compete with the equipment on the modern boats. Thus they went out of business. The traditional fish mongers on bicycles were replaced by refrigerated vans. The local people could no longer afford to buy the fish and so the fleet began to emphasize catches of shrimp and lobster to export to more developed markets. (4) Thus the imported capital intensive technology served only to increase unemployment due to its demand for limited numbers of semi-skilled workers. (5) If non-alienating development is to occur in LDCs, it is essential that the social context be understood and taken into account prior to the implementation of new technology.

E.F. Schumacher, founder of the Intermediate Technology Development Group, has evolved some creative ideas for "new agricultural technology" (6). Basically, he has developed 'intermediate technology' that takes into account the abundant supply of labour in LDCs. The Intermediate Technology Development Group has established a number of working panels that research and develop in conjunction with affiliated institutions
(ie. the engineering department of Cambridge University or the College of Agricultural Engineering, Bedfordshire), technological innovations that reflect the needs of the average people in LDCs. For example, the water panel,

"...developed various small scale technologies to hold water where it is wanted and where it has to be protected. This meant underground water catchment tanks. We adjusted the technology to the level of the poor; in economic terms that means that outgoing expenditures to build the tank must be minimal, ideally zero. The labour content can be what has to be, because there are a lot of workers who for a long stretch of time during the year have nothing to do. Funded by ... Oxfam, we demonstrated these tanks in Botswana. The Botswana government told us that having water where it was wanted had changed their entire prospect....I was recently in quite a different part of Africa (Schumacher continues) and I found these catchment tanks being built there. They are also being built on a large scale in Jamaica and other non-African states."(7)

Intermediate technology which is low cost and mobilizes the labour force from local communities can be a real boon to LDC development. As the economist, Bruce F. Johnson maintains,

"...simple, inexpensive farm equipment that is well suited to local manufacture in small- and medium-scale rural workshops would be far more beneficial to the economy of LDCs and more practical than the use of heavy machinery."(8)

Thus the popular consumption criterion would encourage self-reinforcing patterns of development as opposed to self-defeating methods as we can see in the following figure, illustrating 'grass roots development'. This approach would build upon the indigenous culture of the LDCs. Technology would
conform to the basic needs of the area as opposed to transforming the area to suit the technology. 'Grass roots development' represents a reversal of the concept of development via capital-intensive industry.
AN EXAMPLE OF SUCCESSFUL GRASS ROOTS RURAL DEVELOPMENT:

Low levels of rural agricultural and non-agricultural production and consumption; high levels of fertility; mortality moderate and declining.

Stream of agricultural technologies suited to local resource endowment

Development policies & programs

Domestic institutions

facilitate widespread adoption of new technologies by small farmers

Increased agricultural production widely diffused

Improved rural incomes widely diffused

Improved levels of education, sanitation, nutrition

Increasing length of productive life and fitness for work

Increasing investment in human capital

Increased survival of children

Increased consumption of bicycles, radios, better housing, sewing machines etc.

Rising aspirations for children: rising costs and declining productive value for children

Desire for smaller families

Increased family planning

National family planning program

Declining fertility

Declining dependency

Rising levels of rural production and consumption; declining mortality and fertility

FIGURE 9-1
Organic Growth Strategy;

Conventional economic wisdom has an almost idolatorous conception of "growth". The belief is that growth is the only means by which an economy can maintain full employment and increase its rate of capital formation (ie.savings) to allow improvements in the standard of living.(10) Economic growth has "...acquired the highest standing as a social goal."(11) It may, like its 'profit' counterpart, be central to the ethos of capitalism itself.

The growth we are considering here is 'undifferentiated'. That is to say, that the economy expands without any particular "master plan", as if guided by a mysterious 'invisible hand'. If we observe undifferentiated growth in 'cells', we would see the rapid increase in the quantity of cells, each one resembling the original cell.(12) In the capitalist or mixed economy, "...the primary affirmative purpose of the technostructure is the growth of the firm."(13) A multitude of firms thus, engage in producing and selling a variety of products with limited coordination concerning their social value to the society. Thus, ironically there can exist in the case of DCs, a condition of 'overdevelopment'.(14) Charles Birch, in Confronting the Future,1975, writes,

"In a sustainable world with a more just distribution of wealth, a nation is overdeveloped when the citizens of that nation consume resources and pollute the common environment at a rate which is greater than would be possible for all the people in the world."(15)
Thus, the massive undifferentiated push to bring into production all the available resources for the production of commodities to enhance the growth of the firm and thus the economy, leads to a mindless state of overdevelopment, characterized by over-consumption. This may be the inevitable result of Rostow's stage of 'high mass consumption.'

"It is this pattern of imbalanced and undifferentiated growth which is at the heart of the most urgent problems facing humanity - and a path which leads to a solution is organic growth."(16)

This is a part of the report of the Club of Rome, an international 'think-tank' devoted to studying the present global crisis. This group contends that prior to the emergence of technological society, the world was a collection of essentially independent parts and thus growth within each part was possible and even desirable to sustain the basic needs of life. However, that condition has changed! The world at present is a collection of essentially interdependent parts. In our example of the cell, beyond a certain point of multiplication, the created cells begin to adopt a specialized function. For example, liver cells are different in function than brain cells.

The obstacle to human fulfillment is that, "...such a 'master plan' is missing from the processes of growth and development of the world system."(17) In the previous discussion, 'selective
growth' was characterized as undifferentiated growth planned to start in one or two sectors of independent economies. Here, the key element is a 'master plan' for growth in mutually interdependent economies. This 'master plan' requires a conscious change of direction by people within the global system. It will not merely arise from the process of undifferentiated growth.

Some efforts have been made to work toward a 'master plan'. The United Nations World Food Conference in Rome in 1974, pinpointed the need for increased food production in LDCs and increased food reserves in some DCs. The proposal for an International Fund for Agricultural Development was adopted.(18) It will attempt to disburse development grants and loans on highly concessional terms. The innovative aspect of the Fund is that two-thirds of the votes rest with the LDCs which gives them power in investment decisions.(19) Action was also taken at the Food Conference to establish 15 to 20 million tons of grain for reserves to mitigate against extreme fluctuations in the price and to meet emergency needs in "food priority nations".(20)

Other efforts at a 'master plan' came with the United Nations World Employment Conference in Geneva in June 1976, which called for $1000 million to be designated for employment creation in rural sectors of LDCs.(21) The Law of the Sea Conference in Caracas in 1974 and the Conference on the Human Environment in
Stockholm in 1972 provide yet further examples of preliminary attempts to establish some 'master plan'.(22) The nexus will occur at the point where these plans are transformed from tacit approval in the context of undifferentiated economic development to committed organic growth!

On the local level, the Club of Rome calls for recognition and action on "region-specific" problems.(23) This is an attempt to deal with the fact that the problems confronting the LDCs are not all the same. As beneficial as it may appear at first, raising beef production in Latin America may not serve Latin Americans if effective demand is lacking. Thus the global community must recognize regional disparities and strengths.

Thus it would appear that in the long term, organic growth according to some 'master plan', is the only feasible way to surmount the present impasse. What the Club of Rome has called for is a fundamental re-thinking and adjustment of our conception of the future. This means that our system of action and values may require planning and reworking to sustain a world for future generations. Paul Erhlich writes,

"Managing the transition to what some people have called a sustainable world without a major catastrophe (wars, mass famines, pandemic ecological disaster, or economic collapse), will require far more than good luck. It will require careful planning and hedging against such unpredictable eventualities...."(24)
Simply stated, "organic" growth means survival against the impending threat of disaster!

A New International Economic Order Strategy;

In 1971, the oil producing countries banded together to form a cartel known as OPEC (Organization of Petroleum Exporting Countries). The purpose was to establish stable prices and press for a higher return on their petroleum resources. Initially, the price rose only a modest 20%, but with the oil embargo in the winter of 1973-74, prices for oil rose a dramatic 300%!(25) The western developed countries whose economies had been predicated on the abundance of cheap energy, were rocked to their very foundations. The flow of capital to OPEC nations, drastically altered the global balance of payments picture and bestowed upon the OPEC countries a power, never before held by any LDC.

For years prior to this, the trading base of LDCs had been systematically eroded. LDCs rely heavily upon their foreign exchange earnings to purchase such essential items as food and capital goods. There is a vicious circle created in producing cash crops (bananas, coffee, tea, peanuts, etc.) or exporting natural resources (copper, tin, jute, rubber, etc.) to pay for essential commodities. In many cases, as the prices for exports falls, there is a corresponding rise in the cost of imports, resulting in the press to produce even more exports. In the following figure, it can be seen how, in the case of Latin America, their trade base has been almost wiped out.
In the 1970's this situation is even worse. It has been estimated that the oil price hike in 1974 cost the non-OPEC LDCs an additional $10 billion, the total of all aid disbursements the year previous. (27) Michael Harrington reports,

"According to the International Monetary Fund and the U.N.'s Economic Commission on Latin America, between 1951 and 1966, taking 1951 prices as a base year and omitting Cuba from the calculation, the Latin American countries lost 26.3 billion dollars through the deterioration of the terms of trade." (28)

Thus the terms of trade clearly have changed due to a number of factors to operate to the advantage of the DCs to the detriment of the LDCs.

Under the leadership of the OPEC nations, the LDCs banded together to form the "Group of 77". (29) The "OPEC Revolution" which had drastically altered the flow of international capital and power, became an indicator to the third world countries that
a new international economic order was not only necessary, but
more importantly, it was possible. Their case was presented to
the United Nations General Assembly at the Seventh Special
Session. Initially, there was some resistance by the DCs to
agree to alter the terms of trade. However, in September of
1974, the U.N. adopted by consensus a "Declaration on the
Establishment of a New International Economic Order,"

"...based on equity, sovereign equality, interdependence,
common interest, and cooperation among all States,
irrespective of their economic and social systems which shall
correct inequalities and redress the existing injustices,
make it possible to eliminate the widening gap between
developed and developing countries and ensure steadily
accelerating economic social development and peace and
justice for future generations."(30)

The 'Declaration' was a mere seven thousand words, but within
the seven sections there were far reaching implications. (31)
These sections discussed the areas of international trade,
transfer of resources for development, science and technology,
industrialization, food and agriculture, cooperation among
developing nations, and a restructuring of the United Nation's
system.(32)

In international trade, the Declaration called for some basic
restructuring. Commodity prices for exports from LDCs are to be
"indexed" to the price of imports to attempt to stabilize and
improve the 'terms of trade'. A "General Commodities Agreement"
is to be implemented to cover a wide range of commodities from
LDCs. DCs have been encouraged to reduce tariffs and import duties and restructure the General Agreement on Tariffs and Trade (GATT). LDCs are encouraged to form producer associations modeled on OPEC.(33) The European Economic Community has negotiated a treaty with forty-six LDCs in Africa, the Pacific, and Asia that reflect these principles. The Lome Treaty, named after the capital of Togo, has eliminated 96% of the tariffs on industrial and agricultural products entering the EEC as well as establishing a fund, referred to as "Stabex", of $450 million to compensate exporters of twelve primary products (peanuts, cocoa, coffee, cotton, etc.) if the prices fall below average prices.(34)

In March of 1975, the Lima Declaration called for the establishment of 25% of industrial capacity to be located in developing countries by the year 2000. At the present time only 7% of industrial capacity is located in LDCs.(35) The affluent countries must restructure industry to allow some of that capacity to be transferred to LDCs.

Of corresponding importance is the call for cooperation by DCs to ensure that transnational corporations conform to the social and economic goals of the nations within which they are operating. This will mean that efforts to increase the transfer of technology and managerial skills should be increased without the interference in the internal affairs of the nation, the
maintained use of restrictive business practices, and the repatriation of profits which reduces the LDC's capacity to reinvest. (36)

Among LDCs there is a need to generate capital, thus the U.N. Declaration calls for an increase in official development assistance. The estimated needs at the present time are 1% of the GNP of the more affluent nations which would mean that most DCs would have to at least double and in some cases, triple their assistance to LDCs. (37) Mechanisms would have to be introduced to reschedule the mounting debt of LDCs which would mean even 'softer' loans (loans at reduced interest rates) by the International Development Association, an arm of the World Bank, and an extension of the 'special drawing rights' (SDRs) of the International Monetary Fund. (38) Some of this money could be recruited from nations, such as OPEC, with unabsorbed capital reserves.

The World Food Conference in Rome generated four proposals that appear to support the principles of the Declaration. The first called for the establishment of an internationally managed food reserve system to guarantee supplies and mitigate price fluctuations. Second, a World Food Council should be established to plan a global agricultural policy. Thirdly, more economic development assistance should be channeled into agricultural and rural development. Fourthly, DCs should change their production
and consumption habits to cut the rate of demand for food supplies created by rising affluence.\(^{(39)}\)

Overall, the U.N. Declaration is a call for a new governing ethos in a globally interdependent economy. It comes from the LDCs since they have directly experienced the negative impact of the present system. The changes created by this call will also be reflected on the level of the local economies. One result will inevitably be land reforms and the redistribution of income schedules especially in the LDCs.\(^{(40)}\) The press for a New International Economic Order may be the first step in the press toward a new economic order in many countries. The question at the present time is whether or not the DCs and LDCs can, as Harland Cleveland describes, reach a "planetary bargain".\(^{(41)}\)

The Viability of the above New Economic Order Strategies;

As we have before, we now again ask the question of viability. Are these policy options appropriate to solve the present impasse? As implicit in the name, the New Economic Order aims at transforming the fundamental values of present economic activity from profit and growth to need and general welfare. Thus New Economic Order policies are aimed at overcoming the rising alienation in LDCs.

In understanding the press for a new economic order, these policies focus on the threat of alienation. There is a press to go beyond the present limits of the 'lived-encounter'. It
emphasizes the totally or absolutely new in the 'We-relation'.
Thus it presses societies toward a 'vision' of what society 'ought to be'. The New Economic Order option, by its very constitution deals with just this 'vision' by enhancing creative interaction, group participation, and mutual responsibility. China will provide an example to consider the effect of these policies, since the claim is made by Erhlich, Blobaum, and others that the successes in China in escaping from the grips of hunger have been accomplished through the transformation of values via a new vision.

Creative Interaction;

We have defined creative interaction as the ability of the members within a group to pursue special interests or concerns with the aim of transforming the existing bureaucratic forms and structures. The existence of an environment that allows creative interaction provides a crucible from which changes are generated. Thus it provides a flexibility within society that creates rather than imposes solutions.

The Chinese have developed some methods that have enhanced creative interaction. For example within agricultural technology, there is a strong relationship between the users and the designers. Tractors which are mass produced in Shanghai are designed in conjunction with the peasants who own them. The engineers and designers spend their summers on the communes
working with the peasants and thus, learning of their needs. (42) If the basic need changes, then the design of the tractor changes.

Another example of this creative interaction, is the means of implementing agricultural technology. At the Agricultural Research Institute at Yangchow, there are approximately one million people directly involved in research projects. (43) These projects are carried out on the communes where the peasants proposed the project to be engaged and can observe the results. (44) In China, there are seventeen such centres for crop experimentation alone. (45) The staff of the institute work on a three year rotation; one year at the Institute, one year working on research projects while living with the peasants, and one year touring the various parts of the province participating in adult education programs and searching for new research projects. (46) In addition to the institute members, one member of a commune near Soochow pointed out,

"We have agri-technichians in every brigade and production team and they work together with the commune members to be sure this technology works and is adaptable." (47)

It appears that the Chinese model offers a fairly high degree of creative interaction. However, the Chinese model has not been simply the adoption of western development strategies. Rather, the interaction among the Chinese people has served as a successful substitute for the massive and expensive importation
of packaged development. Chairman Mao, whose writings guide most of present Chinese thought, has encouraged creative interaction. He writes, "Be a pupil before you become a teacher; learn from the cadres at the lower levels before you issue orders."(48)

Group Participation;

Group participation is the involvement members have in a society. It is the degree to which the people share in making decisions that affect the basic values and goals of the group. This requires a dissemination of information and an involvement of everyone in the basic issues to generate a feeling of shared participation in the social symbols and goals. Group participation provides the basis for voluntary service to achieve the aims of the society.

The Chinese experience provides some good examples of a high level of group participation in both agriculture, as we have already seen, and in the area of family planning and birth control. China's program of controlling population growth has probably been the most effective of any LDC nation. In the early stages of their program they focused on encouraging late marriages and the spacing of a two-child family over three to five years.(49) There has since been massive research into simplifying sterilization procedures, developing contraceptive devices and pharmaceuticals. One of the recent innovations has
been the development of a "paper pill", which are sheets of water
soluable paper impregnated with an oral contraceptive.(50) They
are easy to transport and distribute. They were designed for the
rural areas where "pills" as yet have not been generally
accepted. Thus the Chinese program has emphasized family
planning that takes into account the attitudes and values of the
existing culture.

However, the Chinese have also worked to change attitudes and
values concerning family planning. Family planning is encouraged
as an alternative to child bearing, not to replace it. Thus the
government is an active supporter of both mothers and birth
control. Free nursery care, paid maternity leaves, time-off for
breast feeding and proper medical attention are supplied for
mothers.(51) On the other hand, birth control materials are free
and there is time-off for sterilization or abortion. Moreover,
the Chinese family planning and birth control services are
administered through an expanded health care program. Thus the
threat to the security of the family is averted.

The prime responsibility for birth control and family
planning rests with the "Revolutionary Committee" of each
production brigade. Women with families who are respected in the
community go from house to house with contraceptives and a
pro-birth control message. In some suburban areas, neighbourhood
committees decide how many children should be born and what
families should be allowed to give birth to them. Therefore, even at the local level there seems to be a high degree of participation by the local people in the national goal of reducing the rate of growth of the population.

The success of a country with a population of 836.8 million in reducing its rate of population growth from pre-revolutionary levels of 4.5% to the present level of 1.7%, is testimony to the massive participation of the population in the process of developing their country.(52) It would therefore, appear that the policies of population control have succeeded because of the broader context which had an overall goal. This goal, freedom from poverty, was one in which the people could participate. Group participation appears to have been enhanced by the 'grass roots development' approach.

Mutual Responsibility;

The characteristic of mutual responsibility is the commitment of the group to the resultant effects of their actions. Simply stated, people care what happens to those affected by the policies and goals of the group. There is inherent within mutual responsibility, the element of sacrifice which is an attempt to maintain equity of balance within the system. Everyone is provided with their essential needs if they are unable to provide them for themselves.
Our previous illustrations allude to this sense of mutual responsibility in China. Clearly the motivation for agricultural improvements and family planning services is generated by the people within the local setting. These policies are not alien and imposed from the outside. The 'native' or 'barefoot' doctors have an essential commitment to the health of the general population. The motivation for their training is not to improve their station in society, but is generated by the desires of the local communities. At one technical college, the professors told of how the students spend their time working on the communes and the peasants evaluate and mark their progress. (53)

Another example of the way in which mutual responsibility is enhanced is the economic structure of the commune that predominates in Chinese food production. The commune involves usually 15,000 people and resembles a farming cooperative. (54) The communes are organized into brigades and these in turn are organized into groups of ten to twenty families that work the land together. Chinese agriculture by design, is labour intensive with 80% to 85% of the population engaged in agriculture. (55) Thus there is a heavy dependence of the communes on the productivity of each person. Each commune provides its own services such as farm machinery maintainence, blacksmith, hospital services, carpentry, and management of production. Income is tied to production and production is tied
to labour, thus a system of mutual dependence is established. A failure in one section of the commune affects everyone in the community. The key is that the technology and size of the commune are of a manageable size for the existing cultural and human resources.

The massive increases in food production (250 million metric tons of grain in 1971 which is twice India's production) and the distribution network that has eliminated mass starvation, seem to underscore the sense of commitment of the Chinese people to the goal of eliminating poverty and hunger. This system by design seems to reinforce a sense of patriotic loyalty and mutual responsibility. It would seem highly unlikely that the Chinese achievement, the surmounting of the hunger impasse, could be accomplished without the massive mobilization of resources, the prime resource being a committed population.

The Chinese example provides some insight into the new economic order. The policies reflect a fundamental change in the basic values and goals of a society. To transform these values and goals, the policy focus must embody an element of self-transcendence with its emphasis on 'vision'. New Economic Order policies do appear to enhance creative interaction, group participation, and mutual responsibility, and thus redress the threat of alienation.
These New Economic Order policies on the whole, have not been widely adopted. It seems that where they have been implemented, such as in China, there has been a greater degree of success in alleviating hunger. Paul Erhlich writes,

"Today, despite some of the setbacks and wrong turns, China's agricultural system appears to be on the whole an extraordinary success story, especially when compared with the present conditions in most other LDCs or with conditions in China a generation ago."(56)

James Craig, in reference to the land reform policies, writes,

"The success of these is seen in the fact that starvation which was once predominant...has been eliminated and agriculture can now produce a minor surplus. Economic growth, based on the market of entire populations, has begun...."(57)

The success in China affirms the basic principle of the New Economic Order; a concerted effort to change the basic 'vision' of a society can result in development that alleviates massive poverty and consequently hunger.

It appears the basic premise of a new economic order has been established. Development through equity has occurred in at least one country. Creative interaction has been established as a central principle, necessary to determine appropriate developments. There exists shared participation in the goal of development. Group participation is seen as essential in mobilizing the major resource, the people. Finally, by its closure to outside influences and the structure of the culture
(ie. communes), this heavy reliance upon people helped to foster a sense of mutual responsibility. Clearly it is the effectiveness of the Chinese policies in addressing the threat of alienation and generating a 'vision' which has allowed their people to surmount the impasse of hunger.

In closing it should be noted that the Chinese example is a particular response to a particular situation.

The Chinese model is certainly not a model that can be uncritically imposed upon different contexts. However it does reflect the essence of the new economic order, an order which quite significantly requires that the people become involved in "generating a vision". These 'visions' cannot be imposed. Those policies, such as land reform, intermediate technology, international cooperation on the 'master plan', that serve to liberate people to generate and participate in this 'vision', seem the most appropriate policies for the present impasse. Policies must be aimed at "liberation", to use Bishop Sarpong's phrase, from those alienating elements of the present ethos.

In Chapter 9, the effectiveness of New Economic Order polices can be seen in the particular case of the People's Republic of China. There may be other areas where this policy approach is being used, however, it would appear that generally New Economic Order policies are the least employed of the three approaches to policy. Consequently, the most pressing threat at the present
time, mainly because it is the least addressed, is the threat of alienation. Therefore, in overcoming the present impasse of hunger, the policy emphasis should be New Economic Order policies that enhance the level of creative interaction, group participation, and encourage a sense of mutual responsibility.
FOOTNOTES FOR CHAPTER 9


2 Erhlich, p.931.

3 Ibid., p.933.

4 George, p.99.

5 Ibid.

6 Ibid., p.108.

7 Ibid.

8 Erhlich, p.933

9 Erhlich, p.935, adapted from J. Kocher.

10 Samuelson and Scott, pp. 870ff.

12 Mankind at the Turning Point, p.4.

13 Galbraith, J.K., Economics and the Public Purpose, p.96.

14 Erhlich, p.926.

15 Ibid.

16 Mankind and the Turning Point, p.7.

17 Ibid.

18 Menon, pp.44ff.

19 Ibid.

20 Ibid.

21 Ibid., p.51.

22 Erhlich, p.944.

23 Mankind at the Turning Point, p.8.
24 Erhlich, p.944.

25 Ibid., p.906.

26 Oxfam, p.28.

27 Roche, p.35

28 Harrington, p.218.

29 Erhlich, p.907.

30 Menon, p.87.

31 Ibid., p.12.

32 Ibid.

33 Roche, p.53.

34 Ibid., p.62.

35 Ibid.

36 Ibid.
37 Ibid.

38 Ibid.

39 Roche, p.54.


41 Erhlich, p.907.

42 Ramparts, July 1975, p.41.

43 Ibid.

44 Ibid.

45 Ibid.
46 Ibid.

47 Ibid.


49 Erhlich, p.771.

50 Ibid.

51 Erhlich, p.772.

52 Ibid., p.773.

53 Ramparts, July 1965, p.38.

54 Ibid.


56 Ibid., p.341.

57 "Land, People, and Power", Ten Days For World Development.
CHAPTER 10 EPILOG

This study has endeavored to engage in an adequate ethics of social policy decisions by giving full attention to the three basic elements of the 'lived encounter'; centredness, growth, and transcendence. These principles govern life itself by its very constitution. In our discussion, we have seen how the perspectives that evolve from a concern for centredness result in Neo-Malthusian policies, policies that evolve from a concern for growth result in Green Revolution policies, and policies that evolve from a concern for a social 'vision' result in New Economic Order policies. These policies endeavor to provide a means by which the challenge to human fulfillment created by starvation and hunger may be surpassed.

The policies discussed previously (ie. population policies, economic growth, and 'liberation') are all requisite for alleviating the condition of hunger. Their ultimate success, however, will be governed by the degree to which they mutually address the threat of disintegration, stagnation, and alienation. Two countries may undertake similar policies, such as family planning and birth control in India and China, yet meet with dramatically different results. The degree of success will depend on how well a nation's policies satisfy or enhance the observable characteristics of the three exigencies to which this
study pointed. For example, China's success in eliminating hunger may be attributed to the fact that China has addressed the exigencies of all three elements of disintegration, stagnation, and alienation.

We have observed this process more specifically as they are involved in the issue of world hunger. Neo-Malthusian policies have successfully addressed the exigency of disintegration by enhancing group cohesiveness, vocational consciousness, and the quality of leadership. Thus we agree with Lester Brown that a "...goal must now be population stabilization - an end to population growth - in every nation of the world."(1) Neo-Malthusian policies are necessary but an adequate ethics must go further and address the exigencies of stagnation and alienation as well.

Green Revolution policies have addressed the exigency of stagnation. Growth is occurring in many sectors of the world economy. Food production has increased. Per capita GNP is growing. However, Green Revolution policies do not adequately address the exigencies of disintegration and alienation. Together, Neo-Malthusian and Green Revolution policies are addressing the threat of disintegration and stagnation. Yet, human fulfillment will still remain impeded if one pursues only these policies and fails to address the exigency of alienation.
Therefore, our third body of policies, those of the New Economic Order that address the exigency of alienation, must now be given a central place in present policy decisions.

In the modern world among LDCs, the primary exigency appears to be the rectification of alienation generated by history. The disparaging separation between rich and poor needs to be reduced rather than increased, as is currently happening. Lester Pearson said in 1969,

"A planet cannot, anymore than a country, survive half slave and half free, half engulfed in misery, half careening along toward the supposed joys of almost unlimited consumption. Neither our ecology nor our morality can survive such contrasts. And we have perhaps ten years to begin to correct the imbalance and to do so in time."(2)

Clearly time is running out. If the current trends continue, one estimate maintains that by the year 2020 there will be 10.5 billion people on this planet. Of that number, 1.4 billion would be rich, 8.5 billion would be poor and 0.6 billion would be in the middle.(3) The alienating trend is thus increasing and demands to be redressed.

Policies to alleviate hunger and allow man to press toward a fulfilled existence, must seek to reconcile the imbalance between the rich and the poor of the world. It appears these New Economic Order policies at the present time are essential. Land redistribution in LDCs would be beneficial in increasing productivity and allowing, presently displaced people, a share in
the 'vision'. A new international economic order would make a positive contribution by restructuring the terms of trade and providing more balanced development by sharing capital resources. A policy aimed at producing food first, cash crops second, would certainly have a positive effect in reducing starvation.

These policies will not be without some degree of 'sacrifice' on the part of the developed countries. Lord Snow of the United Kingdom and Andrei Sakharov of the USSR, recommended that the DCs devote 20% of their GNP for the next twenty years to facilitate the needed changes in LDCs. This represents a transfer of wealth ten times greater than the oil price increase and foreign aid combined. (4) When we consider that aid programs as of 1973 represent only on average 0.3% of GNP of the developed countries, down from 0.52% in 1962, this approach would certainly represent a traumatic step but possibly a necessary one. (5)

If one emphasizes only the conventional policies of the Neo-Malthusian or Green Revolution variety, we would have to agree with Heilbronner's pessimistic forecast. Robert Heilbronner writes,

"'Is there hope for man?' We ask whether it is possible to meet the challenges of the future without the payment of a fearful price, the answer must be: No, there is no such hope." (6)

The tensions generated would result in ultimate disaster. "Armageddon" will be realized in the harshest of realities.
However, from our study it appears that if man pursues policies that attempt to change the ethos of society, there may be hope for man's survival and fulfillment. The objectives of the Neo-Malthusian policies and Green Revolution policies are necessary, however, the most pressing concern is to address the threat of alienation which has been overlooked and avoided, and generate a new global 'vision', which is marked by the three principles of creative interaction, group participation, and mutual responsibility.

This present impasse may serve a useful purpose as a catalyst for change, a prophetic warning of our future should we choose to continue our present course. As Pestel and Mesarovic write, concerning the development of a 'master plan',

"In view of the historical precedents, one might, legitimately, have serious doubts - unless transition evolves out of necessity. And this is where the current and future crises - in energy, food, materials, and the rest - can become error-detectors, catalysts for change, and, as such, blessings in disguise. The solutions of these crises will determine on which of the ...paths mankind has chosen to travel."(7)

Therefore, we believe, that man does have the power to alleviate hunger and poverty. What is central to the task at the present time is the transformation of the ethos of the global society.

The obvious question one might raise at this point is from where or how this transformation might begin? Many suggestions
have been proposed ranging from revolution to allowing nature to take its course. Yet it would seem that the most appropriate place to begin is from within the creative environment of the academic community. As Galbraith pointed out in his book, The New Industrial State, education has a real position of power in our modern technological society despite its nondescript appearance. (8) He writes,

"Proposals for reform, by contrast, begin as seemingly eccentric and implausible suggestions. Gradually they gain adherents; in time they emerge as grave needs; and then become fundamental human rights. It is not easy to attribute power to those who set this process in motion." (9) Education, according to Galbraith, has the "...greatest solemnity of social purpose..." in this modern industrial age. (10) He points to the record of history to substantiate this position where many of the legislative reforms, such as those governing the regulation of monopolies, the access to capital markets, the advocacy of progressive taxation, and the support of the trade union movement, just to name a few, received their impetus from the academic community. Certainly, however, more research and more advocacy will be needed before these policies will become a reality.

Some areas for further research;

Needless to say, this study has only scratched the surface in attempting to understand the strategies for surmounting the hunger challenge. If it has illumined the complexity of the issue, it will have served a beneficial purpose.
Given the complexity, there still remain a number of areas for further research. The first avenue would be to sharpen and develop the indicators used to measure the positive or negative effect upon the nine observable characteristics of the three elements with respect to groups. Their broad construction has served the purposes of the present study's agenda but further work would be necessary to allow a more precise assessment of the needs of particular nations and regions. The Club of Rome has done some work in this area, however, specific research with economic indicators would be more helpful to our analysis.

Another area of further research would be to investigate the impact of the Soviet and Chinese involvements in the development process. Whereas, western nations have projected 'profit' as their criterion and aim, there are explicit 'ideological' beliefs that are attached to development aid, which would have implications for the evolving world ethos. This could radically alter the context of our present challenge.

Finally it would be desirable to expand the considerations for a New Economic Order. More work is necessary to develop specific economic policies and the means of implementing them in particular contexts. Policies will have to be created that relate to specific countries. A call for a new economic order cannot simply apply broad theoretical policies to similar situations in every developing country. An essential ingredient
to their success is their implementation at the appropriate time. Thus, more work will be required to seek out these new policies.

As this study closes it must be observed that we have not reached the end, but rather a new beginning. The quest for human fulfillment is ever before us and its pursuit must become a part of our future practice.
FOOTNOTES FOR CHAPTER 10

1 Brown, p.180.
2 Erhlich, p.895.
3 Ibid.
4 Ibid., p.926.
5 MacBean, p.153.
6 Heilbronner, R., Inquiry into the Human Prospect, p.136.
7 Mankind at the Turning Point, p.9.
9. Ibid., p.281.
10 Ibid., p.276.


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