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TOWARDS A RE-DEFINITION OF POVERTY

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## ABSTRACT

This paper is an attempt to examine a range of definitions currently used to suggest poverty or as used in poverty studies. It is argued that the definitions suffer from serious and critical weaknesses. They are inadequate from a theoretical perspective and in giving useful policy options to direct resources for reducing poverty. It is then argued that perhaps an alternative poverty definition should use a methodology that rather departs from the way data are manipulated to arrive at a measure of poverty.

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### BACKGROUND

There has been increasing concern among developed and developing countries in adopting measures to alleviate poverty, in reducing the gap between "rich" and "poor". In part this stems from disappointments of efforts in the Development Decade. In part this comes from the failure of development, where it has occurred, to spread toward a broader base of the population — to "trickle down" as euphemistically stated. In part this is also due to the emphasis on developing growth points rather than the peripheries. In other words, an almost absolute objective of growth rather than growth and (or with) equity, for example.

Whatever this concern is associated with, it has clearly triggered studies into social welfare and rethinking on development policy and growth. For example, concern for poverty has redirected the World Bank 1 to rechannel its resources along areas which affect a maximum number below some income level. Similarly in the

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See Rural Development, World Bank Sector Policy Paper (World Bank, February 1975).

Philippines this has led to a search for indicators that would lend themselves to reflecting these issues.  $^{2}$ 

But the concern is actually broader than simply poverty itself. It is one of calling attention to the state of economic and social condition of a country in the aggregate. Thus the indicators developed in the Development Academy of the Philippines (DAP) study include both macro and micro indices, such as school enrollment ratio, inflation to consumer price ratio, unemployment rate, crime incidence, per capita calories, etc. On the other hand, the works of Abrera , and Estanislao are geared more towards poverty. Invariably therefore one must face up to the problem of defining poverty.

The purpose of this paper is to examine alternative definitions of poverty as used by or implicit in some of poverty

See the summary report of the Social Indicators Project,
Measuring the Quality of Life: Philippine Social Indicators
(Manila: Development Academy of the Philippines, 1975).

M. Mangahas, "The Measurement of Philippine National Welfare," in M. Mangahas (editor), Measuring Philippine Development (Manila: Development Academy of the Philippines, 1976) pp. 1-39.

A. Abrera, "Philippine Poverty Thresholds," in <u>Ibid.</u>, pp. 223-274.

J. Estanislao, "Poverty In The Philippines," (mimeographed, Center for Research and Communications, 1976).

research studies. 6 It is argued in this paper that current definitions suffer from serious and critical weaknesses. They are inadequate from a theoretical perspective and in giving useful policy options to direct resources for reducing poverty. It is then argued that perhaps an alternative poverty definition should use a methodology that rather departs from the way data are manipulated to arrive at a measure of poverty.

## POVERTY DEFINITION: APPROACH AND MEASUREMENT

The various definitions of poverty are meant to be operational rather than abstract. The definitions are therefore made with the purpose of isolating those which are targets of alternative poverty redressal schemes. Once it is known what is poverty and who are the poor it is also possible to assess the relative impact of development programs in general.

A first candidate criterion for poverty definition is

/income. 7 The World Bank suggests the absolute poverty income level

For one recent review of some poverty studies, see Florian

A. Alburo and Wilfredo F. Arce, "An Analytic Description of the Poor

Majority: the Philippines," Philippine Sociological Review (to appear).

<sup>7</sup> Income here is meant to be broad although several measures are available e.g. measured income, permanent income, or all income (cash and kind). The more salient point is the philosophy that having (a specified) income allows one to have command over basic needs below which poverty is supposed to exist.

to be \$50 per capita annually. <sup>8</sup> Those groups of the population with incomes below this are considered to be absolutely poor. On the other hand relative poverty income level is below one-third the average per capita income in the country. <sup>9</sup> Again those belonging to this group are identifiable targets for programs.

The weakness of this criterion is of course the standards, which are internationally based. 10 Also it is quite clear that income is only one of a range of criteria for defining poverty. One may be poor in income terms but not in others.

An indigenous definition of poverty is the concept of

/thresholds i.e. defining the minimum food needs according to some

(say calorie) standard, putting a price tag to them and defining

the sum to be the food threshold income for poverty. 11 Members of

the population who fall below this threshold are defined to be poor.

On the same plane, it is possible to define total threshold to be

<sup>8</sup> World Bank Sector Policy Paper, op.cit., p. 19.

Ibid., p. 20. Another measure is 50 percent below the median income of a community. See Abrera, op.cit., p. 226.

This applies only to footnote 7 above. The problem here is that international standards when converted into local currency is sensitive to exchange rate values (often overvalued).

<sup>11</sup> See Abrera, op.cit., pp. 236-241.

income for which food expenditures are some fraction of a total. 12 Thus on this basis the number in the total threshold is presumably greater than the number in food thresholds.

It is but a short step to extend this process to allow for other items an individual or family is "entitled" to — "better" food, entertainment, medical services, etc. 13

Using other dimensions, it is also possible to arrive at alternative definitions of poverty. One can measure proportions of populations with respect to the lighting used, sources of drinking water, toilet facilities, type of tenancy, household size, occupation, and many others. This would therefore lead to identifiable targets.

If the poor are defined in terms of access to education and social services, Philippine data will tend to show that provinces or regions which are in the lower rung of an income strata have also

<sup>12 &</sup>lt;u>Ibid.</u>, pp. 241-243. The procedure here for measuring total thresholds is to assume that food expenditures are a fraction of total income. In the Philippines case, the factor used is .6 i.e. food expenditures are 60 percent of income among poor people.

<sup>13</sup> See for example A. Peronilla, Towards a Wage Policy in a Progressive Company (Manila: Center for Research and Communications, unpublished, 1974).

See the World Bank report, The Philippines: Prospects and Priorities for Development (World Bank, October, 1976).

weak access. Given this mutually reenforcing characteristic, one can quickly argue that the degrees of these different criteria for poverty definition are similar -- hence arriving at the same content of definition. But a next generation problem evolves from acceptance of this notion. This means that there would be as many definitions of poverty as there are useful criteria. A large number of definitions is surely not too helpful for policy maker.

In short, poverty can be construed to be multifaceted or multidimensional. Yet to accept this should not be taken to mean that one cannot define poverty in a manner that operationally allows one to segregate target groups or areas.

Thus, one way is to summarize these dimensions into a single index to reflect poverty. The construction of such an index would involve specifying its components, lumping them into a single value and determining a base to define poverty. The construction of such an index would involve specifying its components, lumping them into a single value and determining a base to define poverty.

All these approaches to poverty definition and measurement are naturally legitimate. First, they measure the extent of

The National Economic and Development Authority (NEDA), Region VI has a project involving the construction of regional social welfare indicators. This is building aggregate indices to separate out municipalities according to degree of deprivation.

The preliminary report of the project for NEDA Region VI suggests that the base for this definition is a normal curve i.e. municipalities in a province behave in a normal curve fashion. See the Task Force on Social Welfare, "Technical Report No. 1," (NEDA, n.d.).

poverty and define a base for target groups. <sup>17</sup> Second, they indicate the relative magnitude of what's to be accomplished, and given some relationship between investments and eliminating poverty gaps, can indicate country resources needed. <sup>18</sup> Finally, where social groups can be identified, various types of programs can be promulgated. <sup>19</sup>

#### SOME PROBLEMS

The problem with this definitional approach is that it tends to gloss over a host of substantive weaknesses that poverty research and analysis are fraught with.

In the first place, poverty in these contexts is presently defined in a normative sense. The food and total thresholds determine minimal levels of food and living expenditures i.e., what

<sup>&</sup>lt;sup>17</sup>A. Abrera, <u>op.cit.</u>, pp. 244-247.

The World Bank estimated resource requirements for reducing poverty on the basis of this type of procedure. See World Bank Sector Policy Paper, op.cit., pp. 62-65.

<sup>&</sup>lt;sup>19</sup>For example, if landless labor is one such group defined and measured as poor, a specific program can be tailored for this group.

individuals, families or households should have. <sup>20</sup> Both the absolute and relative poverty income levels of the World Bank are similarly normative. The former has an inflexible reference point. In the same manner definition in a normative sense appears to be an academic definition as poverty is apparent only as the research and measurement would see it. <sup>21</sup>

In the second place, index construction for poverty is ambiguous because of the classic aggregation problem. It is not clear whether all items composing the index have equal weights and by what criteria. Even if this point can be resolved determining the threshold index is tantamount to being normative.

In the third place, measurement problems in poverty are formidable even presuming a high degree of accuracy. For one actual consumption expenditures (which are compared with defined threshold expenditures in order to arrive at poverty gaps) does not take into account home produced goods. For another

Although account can be taken of family sizes, it would be too tedious to undertake alternate measures for varying ages (of household heads for example), residential location, occupation, etc. But it must be recognized that this specificity is not the essential purpose in these definitions. It is to seek indicative signs of the proportions of the population which have less than the norm.

It is only but fair to mention that these definitions take cognizance of factual data. See for example A. Abrera, op.cit., p. 242

The same criticism can be said for determining the composition of the index i.e. by what criteria can an item be included. Equality of weights was the initial assumption made by NEDA Region VI. See footnote 15.

<sup>&</sup>lt;sup>23</sup>J. Estanislao, <u>op.cit.</u>,

poverty measurement is applied to developing countries which have least developed markets where these measures are most effective. 24

Finally, within countries are regional differences with widely varying markets and expenditure patterns. 25

Even if account can be taken of all these, the definition of poverty will tend to become so arbitrary as to be meaningless. 26

In the fourth place, the units of analysis of these poverty definitions are not quite consistent. For example some measures are macro and aggregative variables to describe broad conditions while others are capturing individual or household states. The former would be far removed from the notion of specific target groups as much as the latter.

In the fifth place, areas for policy prescriptions following the definitions are limited, general, and often misleading. Knowing

Since expenditures are computed on the basis of prices, they are very effective where prices are indeed the signalling devices for consumption transactions. Where a significant portion of consumption does not go through markets, any measure within this frame of reference is apt to be incorrect.

An attempt is made by Abrera to take account of regional differences. See A. Abrera, op. cit., p. 240.

Meaningless here in the sense of policy action. When alternative courses tend to be on a case to case basis (as what this process would become) they become ad hoc. The procedure for generalization is not justified.

the poverty (absolute or relative) gap can imply a spectrum of general policy options within an economic milieu. 27 This itself. already limited to economics (income) does not provide policy leads for other dimensions of poverty. A welfare index is hardly helpful either because of its various component indicators. impinging on an average index. 28 Thus a given unit of budget cannot be adequately placed where it can have maximum spread in reducing poverty because of the basis being an aggregate of different dimensions. To follow the definitional approach independently might help in the sense that efforts can be specific-That is, poverty measurement in accordance with health criteria is helpful for health programs, and so on for education, power facilities, and employment services for example. But the underlying assumption here is that program budgets are unlimited. This does not seem to be a realistic assumption especially so for developing countries. In other words there is no behavioral bases in these approaches for a strong policy implication to be imperative. Nor for that matter a relative ranking of (specific) programs aimed at relieving poverty.

They range from broad policy such as tax, monetary, wage policies to specific measures e.g. public investments, employment, etc.

It is possible that the aggregate index way can be useful through a structural system. That is each step in the process comes from a behavioral analysis.

Finally, it is quite obvious from the preceding discussions that poverty is relative; that the definitions (normative and locational) do not in any rigorous way indicate poverty except by chance by those who "suffer" from it and for whom programs are supposed to be geared to; that to bring to bear on the concern simply measurements carries with it an inherent serious weakness that is primarily behavioral and attitudinal. 30

Of course there have been some efforts in facing up to one or two of these problems. For example, Tan's 31 reestimate of poverty uses a linear programming method with an end view of minimizing costs subject to a calorie standard (constraint). This process avoids the problem of arbitrary choice of food baskets.

<sup>&</sup>lt;sup>29</sup>If the universe identified by current definitions includes as a subset the "actual poverty", then their use increases the probability of getting at the real poverty.

This is further elaborated below. The argument put forth is that since poverty is perceived and a consequence, there is a need for a behavioral and attitudinal form for its definition and measurement.

<sup>31&</sup>lt;sub>E. A. Tan, "Income Distribution in the Philippines,"</sub> Chapter 7 in J. Encarnacion and others, Philippine Economic Problems in Perspective (Quezon City: Institute of Economic Development and Research, 1976).

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But, as later pointed out, <sup>32</sup> the trade-off to a cost-minimization program is the neglect of taste and preference functions. Indeed a basket may satisfy a normative standard but constitute an impractical combination of foods.

The message later studies (recognizing some of the problems mentioned) of this sort gives is that poverty definitions and measurements that are mechanistic are bound to result in numbers which have a wide variance and little practical significance.

Comparing Abrera's and Tan's calculations alone point to daily food baskets for the same area and year that are only one-half the cost of the other.

#### A SUGGESTED TRACK

Given the previous framework, and assuming the points raised above are valid, it appears that the lead most useful to follow in arriving at a poverty definition is to work around the behavior, perception and attitude of those who are supposed to suffer from it and for which policies and programs are aimed.

<sup>32</sup>R.L. Valenzona, "Poverty Measurements and Nutrition," Institute of Economic Development and Research Discussion Paper No. 76-27 (December 17, 1976).

The basic proposition behidn this track is that poverty is an all-encompassing state, multidimensional and prone to many interpretations likely to be far removed from the behavior of those who are actually poor. It is of course possible to consider each (supposed) trait of poverty and attribute standards which must be satisfied in order to meet (part of) the definition of poverty. But that is a separate issue by itself. In this context one can argue, for practical purposes, that the policy-maker need only rank poverty attributes and pursue programs to attack the dimensions in a stepwise lexicographic fashion. However again the measurements and definitions tend to suffer the same problems already elaborated, unless relative weights and ranks of policy-maker match the poor's. Programs may be relieving a different "social volcano".

A first effort therefore is to measure household

perception of poverty, and with this variable the various dimensions
of poverty -- economic, social, cultural or political. The

perception may be on the basis of a scale or simply perception and
non-perception of poverty. 33 The point in this instance is that

poverty is relative to how one (household) sees itself relative to

Technically speaking, this state can simply be said to be either an occurrence (of poverty) or non-occurrence (of poverty). A dichotomous variable would be used. On the other hand respondents may indicate their perceived degree of deprivation according to some scale.

relative to its immediate environment.<sup>34</sup> The measures of the dimensions then define <u>commonalities of characteristics</u> among those who consider themselves poor. The method and analysis would then discern the significance of the dimensions to the poverty scale of a (common) set of households.

This task in effect does not define poverty in a normative sense but leaves it to the household. The common variances among households in terms of the various dimensions can identify measureable poverty determinants.

In a way this procedure jibes with common knowledge on poverty relativity. As an illustration a household in a barrio may not be (or feel) poor relative to another household in the same place; may be relatively poor in a town and abjectly poor in a city.

The suggested direction towards a re-definition of poverty may take at least two steps. The first is the development of a model looking at quantitative characteristics of households who consider themselves poor and not poor. At a more rigorous level, the

One might argue that given the advent of mass media, communications, and mobility, the notion of immediate location is nebulous. Thus the relative income (to one-third or one-half of average income) would still hold. But it is hypothesized here that relative to what one is closely visible to is a stronger determinant of one's perception of poverty, other things being equal. Indeed the relative income measure parallels this, for any given environment.

intention is to come up with any empirical probability model that would predict conditional probability of poverty, the conditions being various dimensions of households.<sup>35</sup>

Second is the examination of the relative weights of the variables of the model. By doing so gives a formal basis for assessing program directions. For example, if education in years of the household (head) exerts a strong weight into the poverty state, this would indicate emphasis on education, other things being equal. Simultaneously, the weight becomes a surrogate definition of poverty and the departure point for looking at underlying behavioral relationships among "poor" households.

Within the framework of the direction suggested here,
the definition of poverty would be divorced from normative or
even (weak) program efforts but rather emanate from that sector
of society which consider themselves poor and therefore targets
of social relief. It will not be a coincidence of course that

Using dummies as dependent variables will yield a conditional probability model i.e. the coefficients of the independent variables will indicate the probability of say being poor, given that variable. See J. Johnston, Econometric Methods Second Edition (New York: McGraw-Hill, 1972), pp. 183-184.

 $<sup>$^{36}{\</sup>rm The}$$  coefficients won't tell the impact of a program but rather the probability of reducing (or increasing) poverty.

 $<sup>^{37}{</sup>m The\ heavily\ weighted\ variables}$  in fact become poverty indicators and the dependent variables for analysis of the poor segment of the sample.

current definitions of poverty will parallel the "definitions" suggested here. The point is not to suggest that sectoral programs (aimed at the "poor") ought to be undertaken on the basis of a procedure asserted here but that they would be on different bases not necessarily to alleviate poverty. To the extent that the "poor" are characterized by sectoral attributes would not be surprising. Indeed there would be a continuum of congruencies in these contexts of poverty. But in this case poverty shall not have been perforced definitionally.

If a health program aims to cut down infant mortality by X percent in a given year, it ought to be pursued as a legitimate health objective but not automatically as a poverty relief objective. If it is, there must be a different basis for being so. Sectoral programs have a socially desirable goal that needs to be be achieved (e.g. elementary education for every citizen) not necessarily to eliminate poverty.