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Washington, D.C.

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The World Bank

1818 H Street NW

Washington DC 20433


Telephone: 202-473-1000


Internet: [www.worldbank.org](http://www.worldbank.org)

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Urban Poverty Program - General, 1976 (Apr - Jul)



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TO: Mr. Alastair J. Stone  
FROM: John M. Courtney  
SUBJECT: Urban Impacts - An Approach to Measurement

A. Issues and Objectives

1. The objectives of the urban impact guidelines are to help provide a better understanding of the implications and impacts of a particular project action. This includes the multi-sectoral impacts and the potential tradeoffs of mitigating negative impacts and the compensating actions that may have to be taken in order to achieve a particular project objective (increasing benefits to the urban poverty group).
2. The purpose of impact measurement is threefold: (a) to enable better project selection among alternatives, (b) improve the design of the project in specific areas to reduce negative impacts and where possible increase the positive impacts, and (c) in respect specifically to the urban poverty group increase the positive impacts to the greatest degree possible.
3. To be effective, impact measurement should occur at several levels of development throughout the project including: (a) the project identification stage to enable the evaluation of alternatives, (b) project design and development stage to mitigate against major negative impacts and where possible increase the positive impacts, (c) the detailed project design stage if possible to assure that the items identified in the project development stage are effectively implemented, (d) post-completion, where possible, to help further the state-of-the-art of project design.
4. If a rigorous and concise methodology is developed for evaluating urban impacts based on an agreed upon set of criteria it will enable the decision-makers both at the country (borrower) and Bank levels to make better decisions

between alternative projects. Further, the urban impact evaluation will enable a better understanding of the impacts of a proposed project action and the extent to which a proposed project needs to be modified to mitigate impacts and meet particular objectives.

B. Measures and Criteria for the Evaluation of Urban Impacts

5. The following table "Measures and Criteria for the Evaluation of Urban Impacts" is prepared as a set of criteria that should be considered. These may be considered in terms of direct and indirect impacts, in order to get a better fix on the most important impacts requiring mitigating action.

6. For example, clearing sites and services or squatter upgrading projects have a primary impact on the urban poverty groups, on the other hand, a city-wide traffic improvement program has an indirect impact on this group, while it may have a very positive direct impact in terms of congestion improvement in the city or area at large.

7. Where there is an impact, it is necessary to establish its magnitude and to determine the extent to which the negative aspects can be mitigated thru specific actions, which may involve modifying the project design.



MEASURES AND CRITERIA FOR THE EVALUATION OF URBAN IMPACTS

	Decrease/ Increase in Existing Levels	Does This Imply Com- plementary Investment	If so, has this been considered
	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
I. <u>Local Economy</u>			
<ul style="list-style-type: none"> <li>- <u>Public Fiscal Balance</u> Net change in government fiscal flow (revenues less operating expenditures and annualized capital expenditures).</li> </ul>			
<ul style="list-style-type: none"> <li>- <u>Employment</u> Number of new long-term and short-term jobs provided and changes in numbers and percent employed, unemployed, and underemployed.</li> </ul>			
<ul style="list-style-type: none"> <li>- <u>Wealth</u> Change in land values.</li> </ul>			
II. <u>Natural Environment</u>			
<ul style="list-style-type: none"> <li>- <u>Air</u> Change in level of air pollutants and the degree of significance.</li> </ul>			
<ul style="list-style-type: none"> <li>- <u>Water</u> Change in level of water pollutants, change in tolerable types of use, and number of persons affected, for each body of water.</li> </ul>			
<ul style="list-style-type: none"> <li>- <u>Scarce Resource Consumption</u> Change in frequency, duration, and magnitude of shortages of critically scarce resources, and the number of persons affected.</li> </ul>			

	Decrease/ Increase in Existing Levels	Does This Imply Com- plementary Investment	If so, has this been considered
	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<p>- <u>Natural Hazards</u> Potential situations endangered by flooding, earthquakes, landslides, mudslides, and other natural hazards.</p>			
<p>III. <u>Public and Private Services</u></p>			
<p>- <u>Water</u> Change in rate of water shortage incidents including increase in number of connections or standpipes per/du.</p>			
<p>- <u>Health Care</u> Change in number of citizens who have access to health care facilities.</p>			
<p>- <u>Fire Protection</u> Change in rating of fire spread and rescue hazards.</p>			
<p>- <u>Education</u> Change in number of students who have access to schools, by type of school.</p>			
<p>- <u>Local Transportation</u> Change in number of people who have access to public or community transportation services.</p>			
<p>- <u>Electrical/Energy</u> Change in number of people who have access to household electrical supply.</p>			



	Decrease/ Increase in Existing Levels	Does This Imply Com- plementary Investment	If so, has this been considered
	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<p>- <u>Waste</u> Increase in the services for solid human and water waste disposal.</p>			
<p>IV. <u>Housing and Social Conditions</u></p>			
<p>- <u>Housing Adequacy</u> Change in number and percent of housing units that are substandard, and change in number and percent of people living in such units including change in number and percent of housing units by type (price or rent range, zoning category, owner-occupied and rental, etc.) relative to demand or to number of families in various income classes in the community.</p>			
<p>- <u>People Displaced</u> Number of residents, or workers, displaced by project - and by whether they are satisfied with having to move.</p>			
<p>- <u>Population Mix</u> Change in the population distribution by age, income, religion, racial or ethnic group, occupational class, and household type.</p>			

## OFFICE MEMORANDUM

TO: Those Listed Below

DATE: July 22, 1976

FROM: Mr. E. V. K. Jaycox, Director, Urban Projects Department

SUBJECT: Urban Poverty Targets

1. In my memorandum of July 21, the definition of urban poverty projects was spelled out for each sector. This memorandum outlines operational targets for country and regional urban poverty lending programs.
2. The principles that underlie these targets are:
  - (a) that poverty projects should form in general a high proportion of total lending in countries where the absolute poverty problem is severe. Conversely, where poverty is minimal, no special concentration on poverty projects is required.
  - (b) that the country distribution of Bank and IDA lending is determined on other grounds, and can be taken as given for this targeting exercise. Similarly, that the distribution of projects between urban and agriculture/rural sectors will in general reflect the degree of urbanization in each country and can be taken as given for this exercise.
  - (c) that targets for the proportion of lending in each sector that will be devoted to urban poverty projects are most usefully considered on a regional basis, since this is the management unit for sector staff (excepting COPDs), and because it may be necessary to change the mix of project staff, to meet sector targets in the longer run.
  - (d) In each country the sectoral mix of the urban poverty program will be most usefully considered on a country basis, using the CPP process.
3. You will recall that, in general, the definitions of urban poverty projects were constructed on the basis of relative poverty within each country. Thus the affordability criteria are functions of average income and income distribution in each country. Operational quantitative targets, on the other hand, are all geared to the numbers of persons who are below the absolute poverty level in countries and regions. The hope is to focus our major efforts in poverty relief on those countries where absolute poverty is most serious, bearing in mind the fact that neither overall lending to a country nor the distribution of lending between its urban and rural areas is determined by its urban poverty level. This implies that a higher proportion of urban lending should consist of urban poverty projects in those countries with a large urban poor group.
4. The basic equation from which urban poverty project targets are derived is:



$$\left( \begin{array}{l} \text{Multiplier determined by income distribution} \end{array} \right)^{1/} \left( \begin{array}{l} \text{(a) number of urban absolutely poor people} \\ \text{(b) number of urban residents} \end{array} \right) < \frac{\begin{array}{l} \text{(c) urban poverty projects (or urban poverty parts of projects) in project \$ terms} \\ \text{(d) total urban projects in project \$ terms} \end{array}}{\text{total urban projects in project \$ terms}}$$

Note: (a) is now estimated, or in the process of being estimated, on a comparable basis for all countries.

- (b) is available from U.N., sources for all countries and included in Bank statistics.
- (c) to be determined from the 5 year lending program on the basis of the definitions in my July 21 memorandum.
- (d) to be determined from the 5 year lending program as classified by URBOR.

*Yearbook Library*  
*urban/rural split.*  
*on a country basis*

There will be very few countries (roughly speaking the East European Socialist Countries) which have no absolutely poor people on account of relative affluence and strong redistribution policies. For these, the Urban Poverty Program imposes no new constraints. For the very poor countries or for those which have a large number of absolutely poor urban dwellers because of poor income distribution, the targets will be quite stringent and may require sectoral recomposition of the urban lending program or extreme efforts to reduce unit costs in projects in several sectors. By 1979, the composition of the lending program should reflect these targets, and 1978 programs should show reasonable progress toward these targets.

Sector Targets

On a regional basis, projects management should gear its program in each sector to the poverty of the region, achieving approximately the ratio of urban poverty projects to urban projects as the ratio of urban absolutely poor to urban population for the region as a whole, times the multiplier.

These sector targets constitute an additional constraint because country urban program targets (being percentages) could be met partly by concentration of urban projects in countries with low urban poverty (producing sector poverty project ratios generally below these targets) and partly by

1/ This multiplier is equal to

$$(6 \times) .4$$

$$\frac{\text{share of national income of relative poverty group}}{\text{share of total population of relative poverty group}}$$

$$\frac{16.67}{43} = .43$$

2/ X the relative poverty multiplier, if we use one.

concentration of urban poverty projects in a few sectors (producing sector poverty projects ratios below this target in the other sectors.) Sector targets for the Bank as a whole are simple additions of the absolute dollar amounts implied by the regional sector ratios.

Numbers of Persons Affected and Other Aggregate Indicators

For many sectors (inter alia site and services and upgrading, industry and DFC, education, health, nutrition and family planning, perhaps water supply) it should be possible to indicate the number of units (per capita portions) of poverty-standard outputs that are being developed by the projects in the lending program. It is intended to monitor the growth in these series, by sector, from year to year as an indicator of the scope and the momentum of sectoral response to the urban poverty problem.

GBcier:bb



Application:

Country / Region

RUPP's poverty data required

VP Targets Memo. (p. 2)

allocated p.c. lending

project datum - cf. nat'l datum (ratio)

capital: job ratio

## OFFICE MEMORANDUM

TO: Project Directors

DATE: July 21, 1976

FROM: Mr. E. V. K. Jaycox, Director, Urban Projects Department

SUBJECT: What is an Urban Poverty Project?

1. Ordinary Bank project criteria include tests of the economic rate of return of projects and tests of the financial soundness and adequacy of management of executing institutions. Clear policy statements in favor of aid to the poorest people in each country have resulted initially in a strong effort to direct our investment to improving the incomes of the rural poor. More recently, the Bank has decided to complement these efforts by special attempts to direct its lending to favor more systematically the very poor who live in cities. This memorandum discusses the first operational step in that process - the description of urban projects (or parts thereof, measured in terms of project costs) that will favor the poorest groups, and an operational definition to allow management to classify projects according to their appropriateness to this task.

2. The basic notion underlying the classification rules to follow, is that to improve the position of the urban poor requires either: (a) more jobs or higher incomes in existing jobs; or (b) lowering the cost of or increasing the availability of goods and services which the urban poor need for a decent life. In pursuing either of these goals a country will be constrained by overall capital supplies and the competing demands on that capital, such as agricultural and rural infrastructure investment. Affordability within these constraints is a key issue; if a project is producing either jobs or services at a very high cost relative to overall capital supplies, then it is not the type of project which, if imitated, could produce gains for the bulk of the poor, because funds for such investments would run out before the problem was solved. This criterion of affordability (discussed sector by sector below) in addition to the usual rate of return and financial and technical soundness criteria, characterizes urban poverty projects.

Target Groups

3. To give operational meaning to affordability we must answer the question, "Affordable to whom?" The appropriate target group in each country is the relatively poor living in the urban areas. We define this group as follows: Observe the per capita money income level that is one third the national average per capita income level. Inflate this income level by the ratio of the cost of a minimum standard of living in urban areas to the cost of a minimum standard of living on average in the economy. Define all those urban dwellers who fall below this inflated income level as the urban poor. The threshold income level for the urban poverty group is used as the income level for which projects should be affordable. This arbitrary choice reflects an attempt to balance concern for the poverty group, with realistic project preparation requirements.

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1/ To be consistent, the rural poverty threshold level should be similarly deflated.



Sectoral Definition of Poverty ProjectsEmployment/Productive Opportunity Goals

4. We are concerned with two types of projects, employment generating projects and projects to lower cost of necessary goods. For the first category, the affordability criterion is related not to the income of the poverty group but rather to the available capital for investment in job creating activities. The target is an investment per worker which is reasonable given the overall capital constraints (i.e., the flow of savings) and the existing technique and the employment requirements (i.e., the rate of job creation required to achieve some improvement over time in the unemployment problem or the very low income problem.)
5. The target group will generally be employed at low earning levels and some will be unemployed. The supply of capital for increasing their productivity will be low enough so that there is little chance of raising all of them to a high income standard. Rather the aim is to produce some improvement in income for the mass of the urban poor. Thus we are aiming to produce many jobs, toward the lower end of the labor productivity scale, with little capital investment per job.
6. As an operational target we could aim at capital output ratios below some cutoff level determined by savings or, what comes to the same thing, labor input per unit of output above some level determined by savings. Historical patterns and quantities of investment will have determined average labor input per unit of output, which we can observe from its inverse, the average value added per worker in the economy. Most of the poverty group will be employed in occupations yielding less than average value added per worker. A reasonable target would be to try to raise as many of these low productivity workers as possible up to the average, implying that additional investment per worker in new or existing enterprises would be just sufficient to generate value added per worker equal to the average. (Higher investment per worker would yield higher incomes, but would exclude more of the poor, because of capital shortage. Much lower investment per worker would leave the beneficiaries among the relatively poor.) Aiming at creation of jobs which produce about average value added per worker will obviously produce higher target capital job ratios in comparatively affluent countries and higher capital/job ratios where the rural poor do not pull down average productivity. In countries that are very poor and/or very unproductive in a large agricultural sector, this kind of rule will lead to very low capital/job ratios in employment projects.
7. The classification of projects as poverty projects is simple, under this rule. Average value added per worker is published in each economic report. If value added per job place in the project is at or below this average, the project qualifies as a poverty project.



Projects Producing Goods or Services for the Poor

8. The poverty case for doing this type of project is that reduction in the cost of living of the poverty groups makes them better off. To the extent that the economy can produce goods or services important to the poor, at lower prices than they paid before, the urban poverty problem is relieved. Lower prices necessarily imply lower costs or subsidies. The arguments against subsidies for services to the poor are mainly pragmatic; whatever the merits of the case, it appears unlikely, given the fiscal condition of most cities and the tight financial position of most service agencies, that subsidies will materially improve goods or service prices for the bulk of the poor. Therefore the stress in the following definitions is on costs rather than prices, with the reservation that if, in any sector, the bulk of the poor can be subsidized under present financial/fiscal conditions and institutional rules, such replicable subsidies should be deducted from costs in the formulations that follow.

9. While it is appreciated that any progress toward cost targets is an improvement, it should be remembered that our cost targets are in terms of the upper income threshold of the poverty group. Thus they already imply compromises relative to a "serve all the poor" set of targets.

Sites and Services and Squatter Upgrading

- |  |    |  |
|--|----|--|
| (a) The cost of the package of goods provided                          | <  | Expenditure of this package of goods by the threshold income group |
|  | OR |  |
| (b) The cost of housing and related services for project beneficiaries | <  | 20% of income of threshold income group                            |

10. This first alternative criterion required that designs and standards be such that the package of goods is affordable at present expenditure levels, the second uses a rough rule of thumb that is approximately equal to the ordinary percentage of expenditures on housing and related services by the threshold income group. In practice the second test rather than the first is more likely to be applicable given data limits.

- |  |   |  |
|--|---|--|
| (The long run average cost of water per gallon) X (number of gallons provided per capita) served under the system supported by the project | < | Annual investment in water in the cities affected<br>-----<br>Annual increment to population in the same areas plus 15% of the backlog |
|--|---|--|

11. This criteria loses the sense of affordability by the poor, at present expenditure levels (differences in product make nonsense of such measures) and substitutes an institutional criterion. Taking one year with the next, would investment at these standards improve the water supply situation (i.e., include more people, presumably the poor)?

#### Education

Annual capital and recurrent cost of school places created (in each category: primary, secondary, technical)

$$\frac{\text{(The annual expenditure on education in that category)}}{\text{(The total annual target number for education in that category)}}$$

12. By failing to specify target numbers to be educated, this formulation begs most of the interesting questions. Targets approaching 100% for early primary education appear reasonable in urban areas, but other targets must be developed on a country specific level. Whatever the target number costs and standards should be adjusted to achieve the above criterion.

#### Other Consumption Industries

13. Projects which produce other goods or services that are important in the consumption basket of the poor have a potential for relieving urban poverty though they might not qualify under the employment/capital targets set out above. For such projects the following criteria is suggested: that the project is part of the essential consumption basket of the poor

Cost of good or service produced by project

.90 cost of comparable good or service presently available

GBeier:bb

#### Attachments

Distribution: Yudelman (AGPDR), Ballantine (EDPDR), Rovani (EWTDR), Fuchs (NDPDR), Kanagaratnam (FNPDR), Tolbert (TMPDR), Willoughby (TRPDR)

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Note on the Value Added Rule

Urban poverty objectives will be served by projects which, among other things, raise real incomes among the urban poverty groups through increasing their employment opportunities and/or opportunities for increasing the productivity of their land, capital or labor and/or increasing the availability of these factors of production to them. In common with all the targets and rules proposed in the memorandum, these objectives would also be served by adequate shadow pricing<sup>1/</sup> and project selection processes which accepted only those projects showing the highest rate of return. The adoption of separate poverty and employment objectives within the Bank implies that management is not persuaded that present project design and evaluation criteria are adequate in this regard. The rule for urban poverty project qualification should therefore seek to overlay, in a systematic manner, employment of poor concerns on existing project evaluation. The rule should allow a preference to be made on employment or productivity of the poor grounds, between two projects which have already satisfied existing economic criteria for project acceptability.

The Interim Report of the Urban Task Group identified the alleviation of urban unemployment and increasing the productivity of the urban poor as a major focus of the Urban Poverty Program and one which should apply to all sectors of Bank work. In setting a simple and easily monitorable target for projects which attempt to go towards achieving this we assume that employment or productivity of poor generating projects, if they are to alleviate urban poverty, must supply improved employment opportunities directly to the target group on an institutionally replicable and economically productive basis. In an economy with limited capital and existing unemployment, this implies finding capital saving production techniques and an eventual broadening of capital until the point where the entire work force is employed. Poverty projects would thus have low capital labor ratios for a given output. So long as the existing overall capital labor ratio of the economy is higher than that implied at full employment (under existing technical capacity) poverty projects must seek to lower it. A rule which specified that poverty projects are those which, for a given output, had capital labor ratios less than or equal to the average which would pertain at full employment would achieve this and would be institutionally replicable in the sense that the economy currently generates enough savings to employ everybody in that, or similar, production techniques.

Such a rule is not practically useful since it depends on measurement of the capital stock. However, since it implies a unique average wage the same rule can be applied, with data already available in the Bank, under the formulation that a poverty project is one which provides productive employment at or below the implied average value added per laborer were the economy fully employed. Thus the proposed target is: - all projects in which

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<sup>1/</sup> i.e., that shadow pricing which accurately reflected the Bank's (and/or the countries') social/political welfare function.



Total value added  
No. of jobs



Gross domestic product<sup>1/</sup>  
Total labor force

should be counted as urban poverty projects. (Projects for which this is true during construction but not thereafter could also be counted on some adjusted basis.)

The rule assumes that all Bank projects will pass the test of economic efficiency to an acceptable extent. It simply superimposes an employment concern over and above these. Since current practice in the Bank, which accepts any project whose rate of return is in excess of a threshold, does not ensure optimal investment, there will be cases where applying the above rule will lead to conflicts between output and employment. This is inevitable. In practice, however, the rule is harmless with respect to efficiency objectives. Assume 10 projects ranked in order of economic return, but investment funds sufficient to execute only 5. With shadow pricing which included employment and/or income distribution concerns we should select the top 5 projects. If, on the other hand, we have reason to believe that these concerns were not adequately accounted for, the application of this rule will rearrange the list into the approximate order which would obtain had they been included.<sup>2/</sup> In terms of Bank practice its rule translates into: for urban poverty objectives, prefer those projects which show adequate economic returns by employing much labor at low wages.

There are a number of attractive characteristics to the rule which are worth mentioning.

- (1) The rule suggests that a country which ensured that its aggregate investment program obeyed the rule on average, would achieve full employment at whatever wages the economy could afford by the time it had replaced its existing capital stock. This seems an eminently sensible objective.
- (2) The rule will tend to ensure employment actually goes to the target income groups since it is they who are likely to be willing to work at below average wages.
- (3) The rule will imply that where large differentials exist between agriculture and other sectors, urban poverty projects are those which drive down (relatively) urban wage levels which itself may be supposed to have beneficial impacts on migration (conversely the rule will imply capital deepening in agriculture under such circumstances which is also presumably desirable).

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<sup>1/</sup> Theoretically the formula should be computed on a net value added basis. This has been ruled out on the grounds of practicability.

<sup>2/</sup> This is strictly true only for projects with the same rate of return.

- (4) Employment opportunities thus generated will not be once and for all effects. Where there is upward labor mobility the project will continue to provide jobs for poor people, in contrast to a project with high value added/laborer, which happens, in the first instance, to employ a poor man.

In summary the rule encourages productive projects which employ poor people either for the first time or increase their income and ensures that the direct benefits of such employment goes to people who must be in the target group since they are accepting employment at wages which imply they belong to that group. In short projects which obey this rule can legitimately claim to be directly contributing to the employment and product of the urban poor.



Examples by Applying Value Added Rule

	<u>US\$ - Approximate Values</u>		
	<u>India</u>	<u>Colombia</u>	<u>Turkey</u>
Top per capita income of urban poor <sup>1/</sup>	45	380	381
Economic Dependency ratio <sup>2/</sup>	2.6	3.4	2.4
Average urban household size	4.7	5.2	5.2
Implied desired worker income <sup>3/</sup>	117	1292	914
Implied desired per household income <sup>4/</sup>	212	2242	1918
Absolutely poor urban household income	436	1787	1251
Value added/worker implied by rule	233	1096	543
Implied no. of workers/hh - poor	.91	2.05	3.5
- absolutely poor	1.87	1.63	2.3
Implied dependency ratio <sup>2/</sup>	5.2	2.88	1.43

- 1/ Derived according to formula described in the memorandum  
2/ Total population over total labor force (as defined in country data sheets)  
3/ Top per capita income of urban poor times dependency ratio  
4/ Top per capita income of urban poor times average urban household size  
5/ Value added/worker divided by top per capita income of urban poor

DRAFT  
AJStone:dd  
July 15, 1976

TO: WHOM IT MAY CONCERN  
FROM: Alastair Stone  
SUBJECT: Urban Poverty Targets

1. The Bank's lending program to each country is established to meet various criteria of credit worthiness, support for a development strategy, and project feasibility among others. This memorandum defines additional criteria whereby a subset of the lending program will be designated as part of the Urban Poverty Program (UPP). The additional criteria fall into four groups: (i) target population, (ii) project characteristics, and, (iii) Bank program characteristics. If satisfied, these criteria will insure that a reasonable proportion of the projects controlled by the Bank will lead to an increase in the real income of the urban poor.

#### Target Population

2. The Interim Report of the Urban Poverty Task Group (UPTG) accepted a definition of absolute poverty based primarily on the cost of a nutritionally adequate diet. This was subsequently elucidated in Mr. Baum's memo of April 20. The populations so defined are to be the building blocks used to establish the urban (and separately the rural) poverty group. The first objective of the UPP is to increase the real income of the poverty group through reductions in the cost of their basic consumption items and/or increases in the supply of these items; and/or increase the opportunities to this group for productive employment of their labor, and/or the capital, controlled by them and increases in capital to be made available to them. With this objective, the program also meets the equity objectives of the Bank with respect to income distribution, but the equity objectives per se, are not specific design

criteria for urban poverty projects. A distinction in the priorities of various types of projects is drawn between those meeting our concern for improving the economic welfare of the urban poverty group, and those meeting our concern for the relative position of the poverty group in the national income distribution. To this end the urban poverty group will be defined for each country primarily as a factor times the absolute poverty group. The factor will be set for each country. As a point of reference for assessing the regional urban/<sup>poverty</sup> population, it is expected that this population will be similar to the urban population with per capita incomes less than 1/3 of the national per capita income. This/<sup>figure</sup> of 1/3 the national per capita income is the present cutoff used in defining the relatively poor group in the rural population.

3. The target population (by country) will be applied firstly in the assessment of the eligibility of projects, or parts thereof,

as part of the Urban Poverty Program. For eligibility it must be shown that the primary beneficiaries of the projects are in this urban poverty group. The second application will be to use the proportion of the urban population in the poverty category as a reference point in assessing the allocation of investment resources in the country lending program.

#### Projects Characteristics

4. Projects, or parts thereof in cost terms, may qualify as part of the Urban Poverty Program if they satisfy either or both of two general tests. The first of these seeks to establish standard on the consumption side and the second seeks to do so on the employment or production side. In both cases the primary test is one of affordability, <sup>and/</sup> or opportunities to the target group for increases in their real income.



(a) Increases in Real Income Through Access to Lower Cost Consumption Opportunities

5. The basic notion is one of affordability, either to the poor, or to the country. In the case of the poor, the scale of assessment is determined by the unit of output of the project, while in the case of the country, the scale of assessment is a program substantial enough to saturate the national markets for basic goods and services demanded by the poor within a specific number of years:

6. Thus projects which either: (i) supply basic goods and/or services at a cost less than or equal to levels of expenditure on those goods and services by households at the poverty level (or at a factor times the poverty level)

or

(ii) are part of a committed national program to supply such goods and services at a rate sufficient to saturate demands within a specific number of years (at any design standard or price) provided the government will assure and the Bank agrees such a program is economically feasible; will be deemed urban poverty projects.

(b) Employment/Productive Opportunities

7. Urban poverty objectives will also be served by projects raising real incomes among the poverty group through increases in their employment and opportunities for investment utilizing or expanding their labor, land and capital. Once again the notion underlying such projects, if they are to qualify as part of the Urban Poverty Program, is that they should provide a paradigm, which, if repeated universally, would eradicate the problem i.e. lead to productive employment for the entire workforce. This implies that besides being an economically sound undertaking such projects should have an output per

worker no higher than that sustainable by the economy at full employment within current savings and the existing capital-output ratio. Thus any Bank project or part of it for which at the time of appraisal:

$$(\text{Value added per worker}) \leq (\text{GDP}/\text{total labor force})$$

will be classified as a poverty project. The classification can be made using data presently available in the Bank's work.

8. Simply, the rule implies only that existing capital be spread over the existing workforce at the level of output and wages that current techniques allow. A country which adopted such a rule in its investment criteria (i.e. ensured that in aggregate all investment was both productive and obeyed  $Q/L = \text{GDP}/\text{workforce}$ ) would reach full employment by the time all existing capital had been replaced. This seems an eminently sensible target. Furthermore, the rule is dynamic: capital saving technical change, increases in savings and population change, each of which would alter the implied allowable capital/labor ratio, are all captured in the GDP/labor force ratio.

9. The rule can be applied indiscriminately to all Bank countries and projects. Any project whose production obeys the rule can legitimately be deemed as contributing to poverty objectives irrespective of the output, (e.g. economic production of Cadillacs at low  $Q/L$  would, if widely adopted, increase employment opportunities and real incomes for the poor). Infrastructure projects (e.g. telecommunication or urban freeways) produced at such a labor intensity would therefore <sup>also</sup> qualify.

10. Program Targets. Program targets will be established at the country level by establishing a ratio between the sum of the total urban project cost or part thereof eligible for urban poverty designation, to the total lending program in project cost terms, related to the ratio of urban population in the poverty category to the total urban population. This proportional allocation of resources to the poverty group represents to our mind the bottom line as to their share of the resources controlled by the Bank lending program. In fact, we believe there is legitimate argument as to why the poverty group should receive greater than their share to redress past inequities in allocation of resources. This should be explored on a country by country basis. The application of the above country target automatically means that the regional target will also show a proportional allocation of resources reflecting the number of the urban poor in the region so no further targeting at that level is required.

11. The sectoral composition of the above targets will depend on the needs within each country. However, there exists to our knowledge no practical calculus by which to make such inter-sectoral allocations. The only test that we can formulate with any confidence is the somewhat nebulous one that the changes in sectoral composition should reflect the directions of change expressed in the Interim Report/<sup>as revised in the light of country and sector work.</sup> The pace of change would have to be negotiated and we recommend that such targets be established at the regional level where the normative effect of the relatively large number of countries should permit such broad trends to be validly targeted. It does not appear appropriate at all to restrict each country program to inter-sectoral allocations such as this.



12. Summary. In the above formulations we have: - (a) criteria to establish whether or not project content should be classified as part of the Urban Poverty Program; (b) country programming targets which reflect the severity of the poverty problem in each country, and hence each region; (c) sectoral composition targets which reflect the trends in which the task force believes the Bank lending program should be moving. From the data required to monitor such targets we can readily calculate the various numbers of shelters, jobs created, goods produced etc. which will express the progress of the program in human scale. In many instances we would hope poverty projects would qualify under both the consumption and the production rule: in such cases project officers will be given two gold stars each and treated to lunch at the White House with Jimmy Carter and/or Big Bob.

## OFFICE MEMORANDUM.

Dean  
Derry  
KIL

TO: Mr. E. V. K. Jaycox

DATE: July 12, 1976

FROM: Alastair Stone SUBJECT: Targets for Urban Poverty Program

1. The following memorandum defines targets firstly in terms of criterion to determine eligibility of projects or parts thereof for categorization as part of UPP; and secondly in terms of proportion of the program that should be so categorized for all urban related sectors. The concepts underlying the targets meet all of our requirements for simplicity, understandability, are applicable immediately to the information available on country lending programs, and can be applied without change to measure the broader market impacts of the Bank's intervention on policies and institutions. The latter application will be delayed to some future date.
2. Project Eligibility. The basic concept underlying the targets is one of resource constraints which presently is discussed under the title of "affordability." In the targets we apply this concept of affordability at two levels, one, at the level of affordability to the urban poverty target group (the absolute poverty group), and two, the affordability to the economy which in most instances means the resources available in the sector being discussed. The emphasis placed on each concept of affordability will vary from sector to sector.
3. Applying firstly the notion of affordability to the poverty group the criterion becomes: any project or part thereof in which the economic cost of the good or service produced is affordable and demanded by the urban poor, will be categorized as part of the Urban Poverty Program. This criterion covers all projects or parts thereof which contribute to an increase in the real income of the consuming unit in our target group by reducing the cost of services consumed.
4. The application of the second notion of affordability to the economy is not easily generalized but in a sector such as industry it relates the annual increase in available resources to the size of the problem and the time period over which you wish to solve the problem. It is important to note that the data requirements of both criterion are fully met by the data generated in the country economic and project work already being executed by the Bank, so the targets do not generate any additional data requirements by themselves.
5. Specific Sector Targets. The following criterion will determine whether or not the project or part thereof will be eligible to form part of an urban poverty program.



(a) Sites and Services and Squatter Upgrading Projects:

(The cost of the package of goods and services comprising housing provided in the project)



(the expenditure on the same package of goods and services comprising housing by a family at the absolute poverty level before the project)

These costs and expenditures will be compared as incurred over the same time period.

(b) Water Supply:

(The unit long run average cost of water to a family at the absolute poverty level after the project)



(the expenditure on water by the same family at the absolute poverty level prior to the project)

The cost and expenditure to be compared over the same time period.

(c) Energy:

This target will be the same as for water supply.

(d) Industry and DFC:

(The unit cost of any good or service produced by the project or part thereof)



(the cost of the same product affordable and demanded by a consuming unit at the absolute poverty level)

Simultaneous to the fulfillment of this criterion is the requirement that the activity be profitable.

A second criterion which will probably be more significant to the Industry - DFC case is as follows:

(The unit cost of a job directly created by the project)



(the annual gross fixed capital formation)  $\times$  (the number of years targeted to lower unemployment to acceptable level)  
(The number of new jobs required to achieve the employment level desired over the time period desired)

July 12, 1976

(e) Education:

(The annual capital and recurrent cost of the school places created under the project)



(The annual expenditure on that category of education)  
(The total numbers requiring such education)

(f) Population:

All projects qualify.

(g) Nutrition:

All projects qualify.

6. Program Targets. Program targets will be established at the country level by establishing a ratio between the sum of the total urban project cost or part thereof eligible for urban poverty designation, to the total lending program in project cost terms, related to the ratio of urban population in the absolute poverty category to the total urban population. This proportional allocation of resources to the absolute poverty group represents to our mind the bottom line as to their share of the resources controlled by the Bank lending program. In fact we believe there is legitimate argument as to why the absolute poverty group should receive greater than their share to redress past inequities in allocation of resources. This should be explored on a country by country basis. The application of the above country target automatically means that the regional target will also show a proportional allocation of resources reflecting the number of the absolute poor in the region so no further targeting at that level is required.

7. The sectoral composition of the above targets will depend on the needs within each country. However, there exists to our knowledge no practical calculus by which to make such inter-sectoral allocations. The only test that we can formulate with any confidence is the somewhat nebulous one that the changes in sectoral composition should reflect the directions of change expressed in the Interim Report. The pace of change would have to be negotiated and we recommend that such targets be established at the regional level where the normative effect of the relatively large number of countries should permit such broad trends to be validly targeted. It does not appear appropriate at all to restrict each country program to inter-sectoral allocations such as this.

8. Summary. In the above formulations we have: - (a) criteria to establish whether or not project content should be classified as part of the Urban Poverty Program; (b) country programming targets which reflect the severity of the poverty problem in each country, and hence each region; (c) sectoral composition targets which reflect the trends in which the task force believes the Bank lending program should be moving. From the data required to monitor such targets we can readily calculate the various numbers of shelters, jobs created, goods produced etc. which will express the progress of the program in human scale.

AStone:dd

cc: Messrs. Dunkerley, Churchill



## OFFICE MEMORANDUM

TO: Chief Economist, Regional Senior Economists, and  
Country Economists

DATE: June 11, 1976

FROM: Sidney E. Chernick, Senior Adviser, PRD *SC*SUBJECT: Notes on Urban Related Country Economic Work

1. There is an increasing emphasis on special economic studies to deal with urban-related issues. Needless to say, the nature and extent of such work will vary widely. It will depend upon the nature of urban-related problems in a given country, the extent of previous related work in the Bank or elsewhere, as well as the need to assess the impact of past or potential Bank lending for projects physically located in urban areas, or whose major impact is on activities principally located in urban areas.

2. Given the extreme diversity of conditions and knowledge, the attached notes should be helpful in indicating initial issues which regional economists might investigate in work on urbanization, urban poverty, and urban development. They also suggest some tentative priorities and preliminary steps for possible studies. Please contact the Urban Operations Review and Support Unit (ext. 5498) or the Urban and Regional Economics Division (ext. 4548), if you wish to follow up any of the points made in these notes, or if you need advice on organizing economic missions dealing with urban-related issues.

Attachment

cc: Messrs: Chenery  
Karacosmanoglu  
Gulhati  
Haq  
Keare  
English  
Bharier  
PRD Staff

Baum  
Jaycox  
Dunkerley  
Churchill  
Stone ✓  
Beier

and cc: Members of the Urban Poverty Task Group

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## NOTES ON URBAN RELATED COUNTRY ECONOMIC WORK

### 1. INTRODUCTION

1. There is clearly a significant degree of overlap between more specifically urban and rural work on poverty related issues. The central pre-occupation is the reduction of poverty through improvements in the productivity of poor people. Analysis of these problems will require a more explicit and systematic study of spatial aspects of development. A common body of knowledge will be required on the distribution of population, the resource base and the major transportation network. Where are the people, and how poor are they? What do they produce where they are, and where are their markets? What is the potential for increased production and incomes in their present location? Background on these issues will have a high priority for poverty related work as a whole.

2. This greater emphasis on spatial priorities for investment will necessitate a broader framework for the discussion of policy issues in most sectors. At a macroeconomic level, the spatial distribution of investment will influence both the allocative and the distributive efficiency of the Government's investment programs. For example, it will obviously affect the analysis of both the rate of return and the distributive impact of a rural development program to have analyzed the probable rural-urban migration patterns. Macro-policy questions, e.g., agricultural pricing and food subsidy questions, have a very strong spatial impact. Most sector questions, of which transportation is only the most obvious, will be studied better for knowing at least the broad outlines of the spatial distribution of economic potential and the current supply of supportive services.

3. Economic work in the Bank has tended to place limited emphasis on such spatial issues. Detailed consideration of spatial development is a major task, as indicated by the Bank's principal effort in this area to date in Mexico. The operational payoff to such large-scale work may also not be immediately obvious. This is partly because of the diffusion of responsibility for relevant public policies and programs, and the problems of effectively combining top-down economic planning and bottom-up physical planning. Nevertheless, increased emphasis on broader-based "new-style" projects will require at least some limited excursions into this sphere.

### Priorities in Urban Related Work

4. There is clearly not unlimited time available for this work. This is a management problem in the Bank-wide sense, in that time spent on non-analytical tasks is directly competitive. Within regional managements, choice may have to be made between countries, and in each country, for greater or lesser depth of analysis. All of these questions are beyond the scope of these notes. This section is limited to the narrower question concerning spatial/urban work priorities within any country for the given amount of time that will be available.



5. Priorities for Bank work will also depend, of course, on the extent and depth of work in this field, which has already been carried out in the country, the Bank or elsewhere. These notes are aimed at the small-medium size country in which relatively little previous work has been carried out. In some countries, e.g., Brazil, a great deal of fairly sophisticated work has been done on regional and urban problems and an extensive and accessible data base is being developed. In such circumstances, these notes will have limited applicability. They are intended to provide assistance in initiating work, not to provide a rigid outline or program of work.

6. It is assumed that in placing attention on poverty related issues in both urban and rural areas, the country economist will have become acquainted with the spatial distribution of the Bank's lending program, its rationale and the principal related themes which have been developed in dialogue with Government.

7. The notes have been divided into three main topics: urbanization, urban poverty, and urban development. These topics are complementary rather than substitutes and some work in all three areas will be advisable in most circumstances.

8. Urbanization

Step I. Urban Population Growth.

- (a) What has been the rate of urban population growth over the past 10-20 years and what is projected for the future? (See paras. 15-25.)
- (b) How has this past growth been distributed and what are likely future trends? (See paras. 26-43.)

These analyses should provide a preliminary guide to future population movements, an indication of the extent of future problems of urban growth and concentration, and a background to urbanization policy concerns.

Step II. Government Spatial Policy.

- (a) A second subject should be the influence of government (including explicit policy tools and results of investment decision) on the spatial pattern of development. Are government policies internally consistent? Do they take into account the results obtained in the above analysis? What are the government agencies most concerned and how do they operate, coordinate and overlap? What is the distribution of public infrastructure and services? (Paras. 47-55.)

- (b) Future policy alternatives. What scope does there appear to be for effective policy measures on decentralization of urban growth or the urban elements in development of peripheral regions, and rural-urban integration? (Paras. 56-72.)

Step III. Issues in the future pattern of growth.

At some stage more detailed work may be useful, assessing in particular, the impact on the rate and distribution of urban growth of principal sector policies and projects, particularly in agriculture and industry (paras. 44-46, 60-64 and 66-71).

9. Urban Poverty

Step I. Measuring the Urban Poor.

What is a reasonable poverty level in the country, how many urban poor are there, where are they located? (Paras. 73-79.)

Step II. Describing the Poor.

What are the principal characteristics of the poor? In particular, what type and level of employment do they have? (Paras. 80-90.)

Step III. The above two steps will begin to provide a basis for identification of target groups. More detailed work may also be required, in particular on the relationships of the poor to the overall structure of employment and production in the economy, the degree of turnover in the poverty group, etc..

10. Urban Development

Step I. Urban Conditions.

What are the general living conditions in urban centers? How many households live in squatter settlements, how many have access to piped water, how crowded are they? What are overall service levels, hospital beds, clinics, school classrooms, buses, etc. per capita? (Paras. 87-90.)

Step II. Shelter.

What is urban housing policy? What rate of housing construction is being achieved? How many are in public projects, on serviced sites, in squatter settlements? How much housing is publicly owned, and what are rent levels? What agencies are responsible? (Paras. 92-97.)



Step III. Future Needs.

What are overall shelter needs in the next five years? What can households at different income levels afford to pay for? Is current policy consistent with needs and ability to pay? (Paras. 98-99, 103, 112.)

Step IV. Land Use and Transportation.

In the larger cities, has development been widely dispersed? Are journeys to work or services long? What public transport system is there? (Paras. 104-106.)

Step V. Urban Public Finance.

What are responsibilities of local government, what resources do they have? What is the system of local taxation and is this buoyant and progressive in impact? (Paras. 108-110.)

11. The desirable coverage of urban related work will clearly vary between countries, but an initial background will require at least brief attention to:

Urbanization, Steps I and II(a),  
Urban Poverty, Steps I and II,  
Urban Development, Steps I, II and III.

12. Special City Studies in Support of Operations. In addition to the systematic study of spatial/urban questions (following priorities like those outlined above and developing over a long period) there is an immediate operational need for analysis of those cities where the Bank has a heavy involvement, in several sectors. In general, this analysis should go well beyond a "project impact statement" and should attempt to provide an integrated picture of the city's economy to the extent possible, as a background to project specific questions. As a rule of thumb, it is suggested that for any city for which the Bank has three or more projects in the five year lending program, a city study should be attempted, independent of the timing of other urban/spatial analysis.

Bank Division of Work

13. It will often be efficient to get assistance from outside the Regional Economic Staff for some aspects of urban/spatial analysis. Transportation sector analysis, water supply and other public utilities studies, urban project identification work, DFC and industrial sector work, will all require aspects of spatial/urban analysis which can be arranged in cooperation with country economists' efforts, particularly to the extent that some broad-gauged analysis has already been done. This is quite obvious in the special city work, where the analysis borders on project identification, but it should also be possible in other project related work, where sector efforts should at least identify the primary policy and investment problems in their sectors.

## 2. URBANIZATION

14. In almost every country, the views most commonly expressed are that the rate of urban growth is too high, and that big cities in particular are growing too fast and becoming too large and, as a corollary, small towns and peripheral areas are stagnating. Frequently, however, these views are based largely on hunch rather than fact, and an initial objective should be to determine more closely the changes that are actually occurring. A series of questions will be relevant in this context:

- (a) What has been the rate and pattern of urban growth?
- (b) What have been the major factors influencing this growth pattern?
- (c) What implications does the anticipated sectoral pattern of growth of the economy have for the rate and pattern of urban growth?
- (d) What have been explicit government goals and policies in this field?
- (e) What has been, or is likely to be, the spatial impact of general economic and development policy?
- (f) What range of policy options appear to be feasible? What places might be chosen for a development effort?

### A. Urban Population Growth

#### Past Urban Growth

15. Subject to caveats about their reliability, national population censuses normally provide a breakdown by local subdivision with a separate enumeration of urban places. From this, relative urban and rural growth rates can easily be assessed. However, the actual definition of "urban" varies considerably between countries. Not all countries base their urban definition on minimum population size. Some have administrative definitions based on local government type or seats of district government. Others have definition by size of administrative unit or an economic definition applied to administrative units. Even where population size of the agglomeration is used as the criterion, the cutoff point varies considerably, ranging from 1,000 inhabitants at one extreme to more than 20,000 at the other. The actual definition should be ascertained. A more difficult problem is presented by the location of the boundary of an urban area.



Contiguous "suburban" population may or may not be counted. In an initial study, this question will generally have to be set aside but changes in boundaries or definition should be borne in mind as a possible source of anomolous differences in growth rates between places or subgroups.

16. Urban population growth is due to natural increase in urban areas (i.e., births-deaths), net rural-urban migration, and reclassification of rural localities. Although decomposition of net growth into these components is often difficult, because of lack of sufficient data, approximations may be possible and even crude analysis will tell a good deal about the structure of urban growth and possible future trends.

17. Where sectoral employment distribution is available on the basis of a rural-urban breakdown, for at least two points in time, urban population growth can be related directly to the intersectoral shifts in the labor force and possibly the urbanization of non-agricultural activities. Frequently, however, census employment data is published only on a regional basis or for a few major cities, and an urban-rural breakdown would require a special tabulation.

## B. Population Projections

### Demographic Projection

18. The demographic issues related to total population growth are outside the scope of this note.<sup>1/</sup> Most countries usually have more than one projection based on different assumptions on fertility, mortality and, where relevant, international migration. A consistent set of country projections has also been prepared by the UN. These are based on the "cohort-component" formula, with several assumptions on fertility trends and future courses of mortality.<sup>2/</sup> Assumptions were adjusted on a country-by-country basis with specific circumstances of the country taken into account.

19. The simplest means of splitting this population growth between rural and urban areas is to assume that current rates of growth in the two sectors remain unchanged. Over a short period, this method will give

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<sup>1/</sup> For an exhaustive review of demographic method, including population projections, see U.S. Dept. of Commerce, Bureau of the Census, The Methods and Materials of Demography, 1975, 2 vols..

<sup>2/</sup> See U.N. Manual VIII, Methods of Projections of Urban and Rural Population, ST/ESA/SER.A/55 N. York 1974.



similar results to more complex schema. <sup>1/</sup> The approach is, however, only really useful as a base for assessing other estimates, especially beyond more than about five years in the future.

20. The UN projections have been extended to differentiate between rural and urban populations. These are based on projecting the differences between rural and urban growth rates by five-year intervals where the base period for this growth is the last observed five year period. This method is not based on any social or economic model, but depends primarily on fairly stable demographic variables. The result of this methodology is that the difference between urban and rural growth rates increases up to the point where 50 percent of the population is urban and then decreases. Thus the estimates are greater for rural countries and less for urban countries than would be obtained from linear projections of urban growth. These overall estimates do provide a useful set of projections, particularly for use on an international basis. However, in individual country cases, they should be scrutinized before being used, especially as the only estimate, since occasional anomalies do exist in them.

#### Employment-Based Estimates

21. These demographic estimates are essentially based upon extrapolation of past demographic trends. More analytic methods may be used to take account of changes in socio-economic variables to which change in population by place of residence are related, in particular sectoral changes in employment patterns. There is no evidence that such an approach is more accurate as a predictive tool, but it can serve the important function of assessing the consistency of projections of sectoral employment on the one hand, and of rural and urban populations on the other.

22. Sectoral employment statistics are frequently obtained for projections of value added by sector by means of employment elasticities (i.e., increase in employment per unit increase in value added). These elasticities are normally estimated from immediate past experience. This approach can, however, give misleading results, particularly if the sectoral growth pattern of the economy changes significantly. For example, if agricultural output and employment have both increased over the past decade, then the elasticity obtained will be positive. Thus, as long as agricultural value-added increases in the future, however slowly, projected agricultural employment will rise. However, if growth in other sectors increases while that of agriculture falls or even stays the same, this method will imply increasing differentials in value added per worker between agriculture and the rest of the economy.

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<sup>1/</sup> See IBRD Working Paper 209, The Task Ahead for Cities of the Developing Countries, July 1975.



23. For this reason, it is preferable to derive estimates of employment from projected estimates of value added by using estimates of productivity (value added per person employed). The relevant assumption will clearly depend upon circumstances but a first alternative would be a continuation of recent relative trends. This will, in most cases, be preferable to a continuation of present rates of productivity growth which, if the overall growth rate of the economy changes, will either over- or under-estimate employment levels. A projection model of employment by sectors is being developed by DPS as an adjunct to the basic CPP model. It projects the sectoral distribution of GNP on the basis of demand constraints for three main sectors--agriculture, industry and services--and then projects employment by sectors on the basis of the sectoral distribution of output and the historical (or assumed) growth in labor productivity by sectors. As a single estimate of sectoral employment growth, this approach has limited usefulness because of the extremely aggregative sectoral treatment. It will serve as a useful consistency check on independent productivity assumptions.

24. Then the simplest method for projection is the ratio method based on the agricultural labor force. The absolute or percent difference (or a variant) between the proportion of the labor force in agriculture and the proportion of the labor force which is rural, can be used to convert the projected proportion in the agricultural labor force to a projection of the rural proportion of the total population. A breakdown by age and sex groups will improve accuracy.

25. A more detailed approach would be based on the projection of natural growth of the labor force in urban areas. This would require projecting urban population by age groups, based on cohort survival ratios for the previous intercensal period and estimating the labor force by means of participation rates. Such projections normally assume that participation rates are independent of general economic conditions. Comparison of this labor force to expected employment growth will indicate likely migration of employment persons to urban areas. Net migration of household population not in the labor force (or unemployed) can be estimated by appropriate inflation of migrant employment. 1/

### C. The Distribution of Past Urban Population Growth

26. Having obtained a broad view of the likely growth of urban population, it is then desirable to obtain a background view to the issue of concentration of population and of possible future trends.

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1/ See U.S. Department of Commerce op. cit. pp. 841-863.



27. The degree of concentration of urban population can quickly be judged by one of a number of measures; e.g., the proportion of the urban population in the few largest cities. Primacy, the dominance of one large city over others in the system, is normally measured by the ratio of the population of the largest city to the next largest. A broader view can be obtained from the rank distribution, especially if graphed. This will indicate if there are relatively few centers in a given size range. While no particular distribution may be considered as "optimal", the absence of centers in a particular size group may suggest characteristics of the urban system which might be investigated in a larger study.

28. This, however, provides only a static view. The rate of growth of places by size group is useful to indicate whether centers in any particular group are growing more or less rapidly than the average. Most commonly, the concern is for rapid growth of major centers. Care should be taken, however, to avoid a common bias. If, for example, the comparison is made between those places in given size groups in 1960 (50,000-99,999; 100,000-499,999) and those places in the same size groups in 1970, then the rate of growth of the largest open ended size group will be biased upwards. This is because smaller centers, through growth, will move into it, but none will drop out. While this may appear obvious, statistical bulletins normally publish information in this way. The preferable procedure is to divide the centers into size groups in the initial or final year of the period under study and estimate the growth rates of these groups, so that the number of places in each group remains the same.

50,000  
100,000  
100,000  
500,000

29. Since the largest 10-20 urban centers (depending on the size of the country) usually contain close to 75 percent of the urban population, their growth characteristics provide an indication of changes in the urban system as a whole. The ranking of the largest cities frequently shows considerable stability but relative growth or decline of particular centers is indicated by a table of rankings for individual census years.

Factors Related to the Pattern of Urbanization

30. A brief review of the pattern of urbanization and of factors underlying it, can provide an indication of future trends and of the potential impact of government policies and programs aimed at influencing the settlement pattern. Migration can generally be interpreted as a response to the existence of differential "opportunities" in rural and urban areas which refer, in particular, to employment, but which also refer to other economic and social conditions.

31. Within this framework of population change, differential rates of urban growth, i.e., a changing pattern of urbanization, may be seen as a consequence of decisions by individuals and households to live in particular localities. These decisions by households are themselves heavily influenced by other decisions, by public and private enterprises and institutions. The aggregate effect of the latter is a set of economic, social, political,



intellectual and psychological opportunities which vary between cities and which determine the attraction of city in relation to the countryside for the rural-urban migrant, and of each city in relation to each other city, for the urban-urban migrant. They play a similar role for the household which now lives in a city and which decides (implicitly at least) to remain there rather than move.

32. The geographic distribution of the urban population therefore reflects (a) the geographic incidence of the many factors which influence public and private enterprises to locate firms and institutions in one place rather than another, and (b) the cumulative response of households to the relative opportunities thus created. These factors can be considered under a number of heads; geographic factors, the functional characteristics of urban centers, economic policy, the distribution of public investment and the institutional structure of the economy and society.

33. Geographic Factors. These are all likely to be fairly obvious, but can be of considerable importance in determining the settlement pattern and placing constraints on the extent to which it can be influenced by policy.

- (a) The distribution of natural resources, including physiography and climate.
- (b) The transport system. The physical environment will clearly have strongly influenced the geographic layout of the transport system. This may be such as to have created a very small number of commercial nodes in the country. Major investments may be required to create additional transport links and the dominance of established centers is difficult to overcome.
- (c) The location of markets. A significant factor in the agglomeration of activities is the concentration of markets. In a dualistic economy, where urban-rural income differentials are large, the overwhelming bulk of the market, particularly for "modern" consumer goods, will be concentrated in a few urban centers. An indication of the degree of disadvantage of peripheral regions can be obtained by estimation of the market potential of individual centers. <sup>1/</sup> External markets (or input supplies) are spatially concentrated from the point of view of the internal economy at ports or trans-shipment points.

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<sup>1/</sup> See, for example, C. Clark, F. Wilson and J. Bradley "Industrial Locations and Economic Potential in W. Europe". Regional Studies 3 (1969) 197-212.



34. Functional Characteristics. Relatively rapid expansion of a given sector will benefit those groups specializing in that activity and result in more rapid growth in those places in which they are concentrated. This again is obvious and well known. Except on the gross agricultural/non-agricultural basis, most activities are not evenly spread across urban centers. Generalizations in this area are difficult but larger centers tend to contain a wider range of activities than smaller centers. Where employment or output data are available for individual centers over a period of time, useful analysis of the relative rates of growth may be carried out.

35. Additional indications of the functional role of major centers may be obtained from census data on occupational distribution, in particular, the distribution of professional and technical groups (managerial groups may include all business managers).

36. In some countries censuses or surveys of wholesale and retail trade have been carried out which can provide a useful picture of the relative importance and sectoral specialization of individual centers. Similarly, central banks may report (or if not, can generally produce) data on the level of bank deposits by city or region. This will provide an indication of the degree of dominance of the principal cities and of the centralization of financial flows and fiscal decision making.

37. Institutional Structure. Economies of scale and of agglomeration are obviously important in supporting the concentrations of activities in a few large urban centers. However, some of the factors often cited in relation to these trends reflect more institutional or policy rigidities rather than real economic advantages. <sup>1/</sup> In many developing countries, the government has assumed a critical role in the development process. Government usually requires the centralization of decision-makers and their supporting staffs. Since it is this group that determines the direction and level of a significant part of the country's economic activities, it is not surprising to find that producers of goods and services prefer to locate close by, that is, in or around the capital city. Capital markets are also frequently highly centralized, reducing the ability of the regions to retain control over generated capital.

38. A review of the growth and distribution of urban centers, using some or all of the above approaches, will provide insights into the existing spatial structure of the economy and provide a basis for assessing the impact of future economic growth on this pattern and the possibilities for affecting changes in it. It will also have provided an indication of the validity of some of the commonly expressed policy concerns, e.g., are larger cities growing faster, is the spatial structure of the economy such as to provide viable alternatives?

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<sup>1/</sup> This view of spatial development has been most forcefully expressed by Friedmann. See his Urbanization, Planning and National Development.



D. Distribution of Future Urban Population Growth

Demographic Estimates

39. The UN urban population projections have been broken down by size groups and for individual cities of over 100,000 population in 1975. These figures are considerably less reliable than the national figures as they are based on most recent observed differences between growth rates of individual cities which are obviously subject to change, even where overall rates of urban growth are relatively stable. Grouped figures, since some of the individual variations will be offsetting, are somewhat better. 1/

Structural Estimates

40. Conceptually, one would like to be able to develop a general equilibrium model of the spatial allocation of employment over time among regions and sectors on the basis of trends in specialization, sector specific production and demand functions, labor market characteristics, inter-regional transport costs, etc.. However, such models are extremely complex and data-intensive. A procedure which has been used is to project regional to national employment by sectors and apply the ratios obtained to independent projections of national employment in these sectors.

41. An intermediate approach of this type has been used in a recent Bank study of Colombia. 2/ Here, employment growth was distributed among departments on the basis of the assumption that each department would contribute in the future the same share of employment expansion, as a percent of its base level, as it had contributed during the reference period. That is, relative differentials between regions in sector rates of growth remain the same.

42. Having projected regional employment growth, populations can be estimated by use of appropriate projections of labor force growth and participation rates. In the Colombian study, the estimates were used to estimate interregional migration directly without intervening population estimates, but unless it is assumed that minimizing such movement or eliminating it is a relevant goal, it is not clear that this estimate is particularly useful in itself.

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1/ It should be noted that the smallest size group presented "below 100,000" is not comparable between countries because the definition of urban used is not standard, but that in use within the individual country. In addition, since the projection is based on currently existing urban places, future projections of population in the "below 100,000" group are biased downwards because of movement of the largest places into higher size groups.

2/ IBRD Report No. 1154-CO Urbanization, Migration and Spatial Policy in Colombia .



43. In most instances, data will not permit the definition of "regions" in the above analysis to be fine enough to include urban areas as separate entities (as can be done with metropolitan areas in the U.S.), except perhaps for the one or two largest cities. It may, however, be possible to obtain a rural-urban breakdown by region. From these figures, net migration for rural and "urban" regions could be estimated.

#### Issues in Future Pattern of Growth

44. It will normally be more difficult to assess the issue of future changes in the concentration of urban growth. In this area, major reliance will have to be placed on the prior analysis of the current characteristics and growth patterns of the urban system and the structure of the economy. Does the sectoral pattern of growth which is anticipated appear to be likely to strengthen those forces within the economy which make for concentration of activity, or vice versa?

45. One factor of considerable potential impact is whether a higher or lower rate of agricultural growth and, therefore, of rural incomes is anticipated. Will this have a general impact or be localized in a few regions? Will this growth take place in centrally controlled corporate enterprises, or in the small farm sector in which local multiplier effects might be greater? Will local enterprises be able to expand to meet demand generated or does availability of credit, licenses, etc. act to hamper their growth? Does the organization and/or level of development, commerce, transport, and communications mean that the increased demand generated, particularly for consumer goods, will be transferred to existing major centers?

46. Within the industrial sector, what are the major localized attributes of the sectors undergoing most rapid expansion? If activities are market-oriented, where is that market, external or internal; if the latter, national or localized? If a significant new development is on-stream outside of the major centers, does the structure of the industry and the economy indicate that local secondary impacts will occur? In general, local multiplier effects on the input or output side tend to be small, at least in the short-medium term, unless the additional activities are very closely related to the major industry, and preferably controlled by it.

### E. Urbanization Policies

#### Background to Policy

47. In almost every country two principal issues dominate discussions of urbanization and regional policy:

- (a) Concentration and centralization. Concern normally focuses both on the overall rate of urban growth and that of the major cities, believed to be greater than for smaller towns.



- (b) Stagnation of peripheral areas and the problems of achieving self-sustaining growth in them.

While concern may be expressed on these issues, an urban and regional policy to address them may not be clearly articulated.

48. Frequently, its implicit and explicit elements may be contradictory. Thus, general economic policy may stress the development of industry with import substituting and export orientation. As a result, activities are generated in port cities and population moves from the interior. At the same time, urban policy is frequently based on standards and approaches to urban development that are so high that only a small portion of the increasing urban population can be adequately catered for. As a result, squatter areas proliferate. Consequently, government concludes that rural-urban migration is too rapid, and propounds an explicit policy aimed at its reduction, frequently focusing on programs such as building schools and establishing industrial estates in small towns in rural areas, for which few occupants are found.

49. Confusion, lack of clarity and contradictory actions also result from the fact that urban and regional policies embrace several layers of government, e.g., central, provincial, local, with decision-making responsibilities scattered across the national scene. As a result, different groups and individuals involved in the policy-making process perceive their problems differently. The evolution of policy, attempting to accommodate the differing views and objectives is, therefore, likely to be convoluted.

50. Because an explicit policy will inevitably indicate an emphasis on one or a few cities, regions or groups at the expense of others, government may prefer not to have an explicit policy in this area, unless it can be presented as benefitting everybody. Thus development of frontier type regions can be presented as a means of promoting more rapid growth of the economy as a whole. Similarly, because city administrations almost invariably feel they would have fewer problems if migration slowed, promotion of rural development appears to have something for all and may be stated as official policy.

#### The Regional Problem and Framework

51. While no general review of urban problems can attempt to provide an in-depth study of regional problems, some background is necessary to an analysis of urbanization policy. This background may be viewed as having three elements: regional economic structure, economic and social inequalities, and the administrative and policy framework.

(i) Regional Economic Structure. The quality of data on the distribution of economic activity by region is typically very variable. Agricultural data, at least on an acreage if not production basis, is usually available on a disaggregated form, perhaps because of the development of extension services and the need to assess food supplies. Estimates



may also be available for minerals <sup>1/</sup> and forestry. Secondary activities are less satisfactorily reported because of the underenumeration of small-scale enterprises in most industrial surveys. Nationally, this may not be serious, since larger enterprises account for the bulk of production, but in less industrialized regions there may be few surveyed enterprises and the underestimation more significant. In tertiary activities, data on output or value added is usually sparse. These gaps can be filled in some respects if employment data by region are available from census or socio-economic surveys. Use of national estimates for value added per employed person can provide a first approximation to regional product by sector, which can be modified in light of other data. Construction of a set of regional accounts or detailed analysis of the regional economy is an extensive task and likely to be outside the scope of any urban focussed work. <sup>2/</sup>

(ii) Economic and Social Inequalities. An estimate of regional product will provide also per capita product. Interregional differences in per capita product will not be the same as incomes because of interregional flows of income, especially returns to owners of capital and resources. However, it will provide a first approximation. In a brief study, data on other elements of economic and social welfare will have to rely on published or readily accessible sources and may include unemployment, population per hospital bed, per doctor, etc; school attendance ratios, housing stock and condition, utilization of electricity and piped water, ownership of major items, e.g., radios, motor vehicles. Such data, although likely to be spotty, will provide a broad view of economic and social inequalities and in some countries, welfare indices have been constructed.

(iii) Administrative and Policy Framework. The nature of any nationally based policy on urbanization and the distribution of economic activities. Thus, in the U.S., the federal structure and philosophy effectively have precluded evolution of any national policy in this field. In a highly centralized governmental structure such policies may be possible, though in practice, hampered for reasons outlined in paras. 46 and 47. The responsibilities of different levels of government should be ascertained, and the locus of responsibility for governmental decisions on urban development and the location of economic activities, determined. Are there any agencies specifically charged with regional development responsibilities? If so, what are their powers and resources?

### Spatial Policies

52. The reality of the impact of both the general structure of the economy and of economic policy may be very different, acting to promote growth in urban areas and particularly the large cities, at the expense of other regions. These forces have three main elements; the distribution of

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<sup>1/</sup> Some of these may, of course, be extremely unreliable, e.g., for precious stones.

<sup>2/</sup> For an introductory review see A. Bendavid Regional Economics for Practitioners, or more extensively, S. Czamanski Regional and Inter-regional Social Accounting.



public investment and current expenditure; general economic policy; the institutional structure of the economy.

53. Distribution of Public Expenditure. Since many governments have pursued policies aimed at development of "lagging regions", it will at least sometimes be possible to obtain a breakdown of public investment by region. Often, however, the proportion of the capital budget which is actually "regionalized" is quite small. Individual central ministries often do not attempt to divide their projects on a regional basis. Thus obtaining a reasonable breakdown of investment by region may be a substantial exercise.

54. The same applies to recurrent expenditure. Especially in centralized administrations, expenditures are not recorded by geographic area. However, the distribution of employment may be available and could be utilized to provide an estimate.

55. The overall impact of the public finance system, i.e., the distribution of the tax burden and of expenditures by geographic region, including local levels of government, is an extremely complex issue and is not one which can be addressed in a brief overview. More detailed analysis will generally require assumptions on incidence, e.g., half taxes on capital shifted, etc..

56. General Economic Policy. The issues here will be analyzed in the course of routine country economic work. This analysis may be extended to review the geographic impact of policies--if this is not already done.

(i) Rural-urban terms of trade. Tariff and trade policy and agricultural price policy have frequently been shown to act to shift the terms of trade against agriculture in favor of urban activities. This can also have a regional impact, particularly on the agricultural side. Policy applied to products entering international trade (e.g., through export taxes), will result in greatest negative impact on agricultural areas producing such commodities. Price incentives will favor those producing goods for local consumer or industrial markets, i.e., probably those in the more industrialized regions, and against the commodity producing "frontier-type" regions.

(ii) Other pricing policies often also will act to benefit the urban population, particularly middle income groups, e.g., interest subsidies or rent controls for housing, pricing policies or transport and utilities.

(iii) Industrial and development policy. While it may seem trite to point out that any policy benefitting a particular sector or activity will benefit locations which specialize in that activity, this can be overlooked. Policies which promote activities linked closely to external trade, either for markets or inputs, will benefit those places with easiest access to external economies. In developing countries such places tend to be few. On occasion, such policies have been explicitly used to promote activity in specific locations, e.g., free trade zones, the Mexican Border Industries



program. More often the locational concentration has been the result of sectorally determined policies. Some reorientation of such policies could be used for regional development purposes, e.g., the Mexico report urged consideration of general export orientation of industrial policy as an element of policy to promote growth in the Gulf Littoral. 1/

#### F. Future Policy Alternatives

57. Having reviewed the government's explicit and implicit policies with respect to the pattern of urbanization, the past pattern of urban growth and the structural pattern of future growth of the economy, an initial judgment on the range of policy options may be attempted. In addition to the issues of centralization and the development of peripheral regions, some attention might be given to the general problem of rural-urban integration. The latter question may be of importance because there is frequently a feeling among policy makers that the first two problems can be solved by dispensing industry to small growth centers, which will promote local development in their rural hinterland.

58. To the extent that there are unused resources located in relatively poor and "backward" regions, it may happen that there is a coincidence between the pursuit of national economic efficiency through decentralization and a reduction in interregional development differentials. It is probably fair to say that policy makers in many developing countries confuse the decentralization issue with the issue of interregional differences and believe that both problems can be solved with the same set of policies. This may lead them to create incentives designed to promote development in the country's most disadvantaged and unpromising regions in the hope that these incentives will, at least on the margin, attract people away from the primate core. This is what is usually called the "worst-first" approach. This type of approach has seldom been attended by any significant degree of success, principally because of the extreme difficulty of establishing effective links between enterprises established under these policies and their hinterland areas.

59. Very often the confusion which leads to a worst-first strategy is derived from a concern to improve an inequitable pattern of interpersonal income distribution. If we invest in poor regions, it is argued, we will reduce disparities at a national level. While some evidence (e.g., that for Mexico) suggests that the better-off regions have the most equitable patterns of income distribution, this thinking implies a confusion between interpersonal and interregional equity. By and large, it will be better to assume that labor is horizontally mobile and that the places to be developed in the periphery should be chosen with regard to their growth potential, and not with regard to how poor they are. In sum, interregional

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1/ IBRD 1976 Report No.

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"balance" is not an achievable or realistic objective for most developing countries and in devising spatial strategy, it will often be useful to emphasize this point.

### Decentralization

60. There is a common tendency to assume that heavy costs are imposed by centralization of activity, without a serious effort to weigh its advantages and disadvantages. Recognizing that the pros and cons cannot be quantified because too many variables are involved, it is nevertheless desirable to avoid the trap of equating a strongly primate urban system with one which is inconsistent with achieving national economic efficiency, rapid and sustained growth and distributive equity.

61. For one thing, in many of the countries which have primate urban systems--El Salvador is a good example--there is no real alternative, because the country is so small, territorially, and so well integrated, spatially, that decentralization is not an option, although decongestion may be. And even in countries which are much larger and where decentralization seems, a priori, to be a valid alternative to primacy, a number of questions should be answered--at least tentatively--before embarking on an uncompromising search for an alternative spatial order.

62. First, what is the evidence concerning the costs of providing social overhead capital in the primate center and in other cities, and are these costs likely to change in the next ten or twenty years? For example, water supply may be a critical item and if so, some attempt should be made to evaluate the long run marginal costs of providing water in different places, given the spatial distribution of water resources, and the country's geographic configuration, particularly with regard to the need for substantial pumping lifts to high altitudes.

63. Second, taking account of past relationships between the locational advantages of the primate city and the processes of demographic and economic concentration, is there a realistic prospect that some, at least, of these advantages will also become available in other cities? Or is the primate city likely to remain as attractive as ever for many types of economic activity, to the extent that it will remain the only viable location for not a few of them? This requires some appreciation of the nature of the agglomeration economies which have helped to produce concentration and implies attention not only to inter-industry linkages, but also to the availability of labor and management. The latter may prove to be strongly immobile, and in general, the higher the skill levels and the training requirements, the more likely that the primate city will have a strong hold on supply. Entrepreneurial attitudes too may vary, as between the primate city and the rest of the country. A particular attempt should therefore be made to understand the extent to which enterprise and management is wedded--for reasons which may have little to do with national economic efficiency--to the primate city, because it seems to offer a better quality of life, more cultural opportunities and is usually the place from which new ideas and trends emerge.



64. Third, what are the resources for development in the periphery? In a large country, it is likely--but less than certain--that there will be some. But at the very least, it will be necessary to evaluate them as possible bases for decentralization.

#### Rural-Urban Relationships ✓

65. An important aspect of urbanization concerns past and present relationships between rural and urban areas. Given the approximate identities between primary activities and rural places on the one hand, and between secondary and tertiary activities and urban places on the other, this is largely an intersectoral relationship, particularly as expressed through the internal terms of trade. But it also has spatial dimension which, in most countries, will focus on discontinuity. This discontinuity can be measured in several ways. First, one can compare the comparative levels of socio-economic welfare in rural and urban areas; these will usually show strong contrasts in favor of the latter. At a national scale, it may also be instructive to see if there are interregional interests in the degree of disparity between the urban and rural sectors.

66. Unless special measures are adopted to facilitate integration, rapid urban growth, including that which might occur in the context of a growth center approach to decentralization, might exacerbate existing contrasts. In general, the more dualistic the structure of the economy, the more limited the local impact is likely to be. This is not to say that no attempts should be made to establish modern sector enterprises in less developed areas. However, it should be recognized that direct local multiplier effects are likely to be slight within the short-medium term. In fact, these could be negative, e.g., inducing changes in local consumption patterns, to increase consumption on non-locally produced items. On the other hand, establishment of a significant enterprise will serve to "put the place on the map", will generate increased local income, and indirect benefits through increased transport communication and other support services.

67. Given the importance which governments may attribute to rural-urban integration, it may sometimes be possible to look upon growth centers as a means of achieving this objective--among others. For this to be practicable, it will normally be necessary to fulfill several conditions, including:

- (i) the achievement of sustained, cumulative expansion in the growth center itself;
- (ii) good physical access between the growth center and individual production units in its periphery;
- (iii) the creation of potential backward and forward linkages originating with new economic activities at the growth center that can be met by expanding and/or creating new production in the periphery of the center;



- (iv) the spatial diffusion of appropriate market signals concerning new production opportunities and the availability of knowledge, entrepreneurial ability, credit facilities and other objective conditions necessary for acting on this information;
- (v) the extension of an efficient market organization into the periphery of the growth center, thus increasing demand for rural labor and agricultural products, both of which will increase rural incomes and allow for increased savings and investment propensities on the part of rural populations;
- (vi) the existence of sufficient income thresholds to allow appropriate entrepreneurial innovations to "filter down" to producers in the periphery.

### Conclusions

68. Assuming that these questions related to decentralization can, in some fashion, be answered, and supposing that the answers lead to the conclusions that (a) even though it cannot be proved, the primate city is "too big" in the sense that it exceeds some notionally optimum size, a more decentralized system seems to be more consistent with long run economic and social development; and that (b) there are viable alternative centers in the periphery, what are the implications for spatial policy?

69. In the case of Mexico,<sup>1/</sup> it was tentatively concluded that concentration was likely to be incompatible with the long run efficiency of the national economy, and also with the pursuit of distributive equity. It was also concluded that the periphery contained several centers which would provide a basis for accelerated urban growth and decentralization. The selection of growth centers was based on the principle of a selective and discriminatory strategy in which the recent dynamism of other cities and their potential for rapid growth in the light of (a) their existing economic structures; (b) the future imperatives of macro-economic strategy, focussing, in particular, on export expansion; and (c) the existence of unrealized opportunities for development in the regions with which they were associated, were taken to be the key parameters.

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<sup>1/</sup> IBRD 1976 Report No.

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3. URBAN POVERTY<sup>1/</sup>

70. While the principal objective of the Urban Action Program is to develop projects which will improve the incomes and conditions of the urban poor, it should be noted at the outset that the problems of urban and rural development are inseparable. The movement of landless laborers to better rewarded city jobs or commuting by very small landholders to urban jobs, will assist in the reduction of overall poverty even if they act to hold down urban incomes. The basic issue is, therefore, more one of overall income growth and distribution with urban and rural elements. Despite the complexity of the interrelationships between income and non-income characteristic of the poor, nevertheless the overriding characteristic of the poor is the obvious one that they have low cash incomes. Although improving cash incomes in some way will not eliminate many of the disadvantages noted above, nevertheless assessing the number of poor on the basis of income will provide a starting point for efforts to improve the overall efficacy of urban development.

A. Measuring a Poverty Line

71. However, the definition of a poverty level of income is not unambiguous. The difficulties of using minimum standards to measure poverty have been stressed elsewhere. <sup>2/</sup> Standards which apply in one city or region may be irrelevant in others. Minimally acceptable living standards vary greatly depending upon cultural factors, climate, overall income level, availability of goods and services, etc..

72. Food Needs. The most common starting point for assessment of poverty levels has been nutritional need. This reflects the fact that minimum nutritional standards have been assessed based on sex, age, body weight, environmental temperature and level of activity. <sup>3/</sup> These standards do not represent absolute minima needed to sustain life and there is no sharp discontinuity between an adequate and an inadequate diet. Additionally, since more than half the urban population of developing countries do not meet them, most without obvious signs of malnutrition, they appear to err on the generous side. Having accepted these nutritional levels, however, defining a minimum cost diet meeting these requirements is not a simple task. Although, theoretically, a diet based on cereals, with some supplementation to provide adequate protein and minerals, is nutritionally adequate, this is not satisfactory as a means of estimating a minimum cost diet. It is not enough that the diet be nutritionally adequate; it must also be acceptable (palatable) and available.

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<sup>1/</sup> For a more detailed discussion of the major topics of this section see IBRD W.P. 227 On the Statistical Mapping of Urban Poverty and Unemployment.

<sup>2/</sup> e.g., IBRD Urbanization Sector Working Paper, Housing Policy Paper, Working Papers 209 and 227.

<sup>3/</sup> See FAO, Calorie Requirements, FAO Nutritional Studies No. 15, 1957, reprinted 1972.



73. Given the dietary components commonly consumed in a particular country, attempting to determine the composition and cost of a minimum cost diet would be a considerable task, outside the scope of any routine country economic work. Where household budget survey data are available, it would be possible to determine the calorie content of the diet of different income groups. This would indicate the income group at which an adequate calorie intake is reached. <sup>1/</sup> This approach, however, suffers from the drawback that more than half of the urban population of developing countries consume less than the calorie standard. Food consumption patterns at these income levels, while on the nutritional borderline, are likely to be considerably above a least-cost diet.

74. In order to overcome these problems it has been recommended that, for routine Bank work, the nutritional element of the poverty line be based on a typical food basket of the low income groups, e.g., that of the 20th percentile of the household income distribution. The calorie content and cost of this diet should be determined. This is unlikely to provide the number of calories implied by the FAO standard and the cost should therefore be adjusted to that which would be required to purchase a standard level diet.

75. Non-food Needs. While estimates of costs of nutritional needs are far from precise, considerably greater problems are posed by non-food needs. There is no convenient reference point equivalent to the nutritional requirement. Estimates have been made of the cheapest (but "acceptable") government constructed or self-help housing for several countries. <sup>2/</sup> Large variations in land costs within cities make estimation of a representative cost difficult <sup>3/</sup> and there are the obvious trade-offs between higher cost-location and expenditure on transportation. Standards for other items of expenditure--household goods, clothing, recreation, are even more subjective and culturally influenced. The most common approach therefore, has been to utilize the actual non-food expenditures of the poor as a first estimate of non-food "needs". This is the approach recommended for Bank work. This is not a really satisfactory approach, but more sophisticated work will await studies on individual countries and results of the monitoring studies of individual Bank projects.

76. A significant problem, particularly with respect to non-food items, is variation in prices and "needs" in different cities and regions of individual countries. This is most clearly seen in higher housing and/or transport expenditure in larger cities, where housing prices are high and long journeys to work often necessary. In some countries, such differences

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<sup>1/</sup> Assuming that calorie intake rises with income.

<sup>2/</sup> IBRD Housing Policy Paper.

<sup>3/</sup> IBRD Background Paper on Housing, Report 617a.



may have been incorporated into different cost of living indices for major cities or size groups, but such cases are rare. <sup>1/</sup> In most instances estimation of the scale of these variations awaits further research.

B. Describing the Poor ✓

77. Disposable cash income is not an adequate criterion by itself of household welfare in urban areas. Welfare depends on a combination of benefits received from the consumption package, including those purchased directly with the money income, plus earnings in kind from assets owned, e.g., housing, and also consumption of services (e.g., education, health care, whose value may greatly exceed charges made). Failure to obtain any one of these streams of benefits can frustrate efforts to improve the household's welfare. However, the issue of ability to earn an adequate cash income is central to any effort to alleviate poverty.

78. Employment Characteristics. Review of studies which have been carried out indicate that reasons for low level of earnings can be best analyzed by subdividing them into three categories: (a) low basic wage levels, or informal sector earnings; (b) the inability to earn the basic wage, because of sickness, temporary unemployment, discrimination, etc.; and (c) greater than average earner-dependency ratios because of lack of opportunities for secondary earnings, or family structure. Clearly (a) and in part (b) and (c) are dependent upon economic conditions and the structure of the labor market, while elements of (b) and (c) will reflect non-economic conditions or characteristics of the poor, i.e., health, environmental or social conditions.

79. Turning to the specifically employment elements of this picture, how do the poor earn their living? For whom do they work and in what sectors? What skill levels do they have? How many are unemployed or under-employed? An employment profile of these characteristics can provide an initial indication of relevant policies and feasible objectives.

80. Such profiles can frequently be obtained from censuses or associated sample surveys of households. However, such data do little more than scratch the surface of the problems involved. A number of deficiencies are generally present in cross section employment profiles:

- (a) There is normally no information in household surveys on the employer (except, of course, for the self-employed or family worker), i.e., are the poor more characteristically employed in large-scale or small-scale enterprises?

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<sup>1/</sup> Descriptions of the method of computation of price indexes for individual countries can be obtained from: U.N. Methodological Supplement to the Statistical Yearbook and the Monthly Bulletin of Statistics. Second issue N.Y. 1976.



- (b) Although a sectoral breakdown is common, this may not be useful from a policy point of view. Thus "retail trade" fails to distinguish between employees of "modern sector" type enterprises and stall holders in periodic markets, although cross tabulations with employment status and occupations can give some guide.
- (c) Some employment profiles will not provide information on the family income situation. Secondary earners are an important source of income and inability to identify high dependency ratios and their apparent cause constitutes a major gap.

81. Employment profiles generally indicate a wide distribution of the poor between sectors and occupations. <sup>1/</sup> While, as might be expected, major groups of the urban poor are found in domestic service, agriculture, small-scale commerce and services, a significant number are also found in medium- and large-scale enterprises and also in government. Similarly, from data currently available, it appears that there are often more employees than self-employed among the urban poor. This dispersion of the poor means that there is no equivalent of the small farmer, i.e., one fairly homogeneous group of producers with potential access to basic factors of production and to an expanding market, which can form a defined target group for project lending.

82. A series of issues are thus highlighted which may require more detailed study. For example:

- (a) Are the poor characteristically in sectors or occupations facing a strong demand constraint in which increased productivity will result in reduced demand for labor?
- (b) Do factor markets and government price and tariff policies produce biases against activities which are relatively labor-intensive and/or predominantly based on small enterprises?
- (c) Is there scope for changes which will lower capital/labor and capital/output ratios, offering some prospect of increased employment and/or higher basic wages (for example, increased capacity utilization; smaller scale enterprises)?
- (d) Is the earning constraint related to lack of skills (or at least relevant skills)?
- (e) Are there legal, institutional or other constraints which encourage larger scale, capital intensive enterprises, e.g., restrictive labor laws, credit restrictions, licensing or

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<sup>1/</sup> For a more detailed review see W.P. 227. On the Statistical Mapping of Urban Poverty and Unemployment. January 1976.



other restrictions on the establishment or expansion of enterprises? 1/

83. Socio-economic Characteristics. While opportunities to earn income are clearly of major importance in reducing absolute poverty, they are not sufficient by themselves. Many of the poor may not be able to take advantage of available opportunities or, even with improved incomes, will be unable to gain access to a wider range of services. The interrelationships between level of living and different elements of deprivation are complex and tend to act in a cumulative fashion. As urban projects and work evolve in a country, these issues will have to be investigated in progressively greater depth. Work on urban poverty has suggested a number of elements of deprivation which may be separated, e.g., demographic; reproductive; educational; nutritional and health; locational; and political.<sup>2/</sup> The relative importance of these will clearly be a local characteristic.

84. Note on Data Sources. The ability to investigate issues of this type, particularly in initial reviews of urban problems, will clearly be limited. The range of data available in different countries varies so tremendously that it is effectively impossible to generalize about what may be reasonably attempted. The three major sources of information are censuses, sample surveys and registrations.

85. Many countries have complemented the population census with a census or sample survey of housing. Published materials will frequently show, perhaps with an urban/rural breakdown by region, size of dwelling units, type of sanitary facilities, type of construction, number of occupants, etc. and also a number of welfare type indicators of ownership of motor vehicles, radios, etc.. A major problem with much of this material has been that, while it has been collected, it has often not been published, or at least not in any disaggregated form. Considerable effort was required to bring out the basic tables after two years or more and time and resources did not allow further work to be done to prepare additional special tabulations from basic data.

86. The situation in this regard is, however, improving, particularly in some areas, e.g., Latin America. A major step has been the development of improved computer based census tabulation systems. In particular, the CENTS/COCENTS system, developed by the U.S. Bureau of Census, is now being installed in some 40 countries (see Table 1). This system allows for improved storage of information classified in terms of (1) census tract units, providing a very detailed geographic breakdown; (2) individuals, providing the initial basis for aggregating population in social space; and (3) by households, enabling household characteristics to be analyzed.

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1/ These issues are discussed in detail in the forthcoming Issues Paper on Employment and Urban Poverty. Approaches to development of small-scale enterprises are discussed in the Issues Paper on Small-Scale Enterprises, PRC/s/M/76-6a.

2/ IBRD Working Paper 209. 1975 The Task Ahead for the Cities of the Developing Countries.



Table 1:  
COUNTRIES AND AGENCIES IN WHICH CENTS AND COCENTS HAVE BEEN INSTALLED

Country or Agency	Installed at	Computer type	System Installed	System Active
<u>Country</u>				
Afghanistan	ABM <sup>1/</sup>	IBM 360/30	CENTS II	
Argentina	D.G.E.C.	IBM 360/50	CENTS	
Bangladesh	Bureau of Statistics	IBM 360/30	CENTS II-COCENTS	YES
Botswana	Central Statistics Office	ICL 1902	COCENTS	
Brazil	IBGE	IBM 370/155	CENTS	YES
Burma	Thamaing College-Rangoon	ICL 1902S	COCENTS	YES
Cameroon	Office of Statistics	IBM 360/50	CENTS	YES
Chad	Statistics Center	IBM 360/25	CENTS-COCENTS	YES
Chile	University of Chile D.G.E.C.	IBM 360/40 Burr 3500-360/50	CENTS COCENTS	YES YES
Colombia	DANE	IBM 370/145	CENTS	YES
Congo	National Statistics Service	IBM 360/30	CENTS	
Costa Rica	D.G.E.C.	IBM 360/40-1401	CENTS-COCENTS	YES
El Salvador	D.G.E.C. Instituto Salvadoreno Seguro Social	IBM 360/30 IBM 370/115	CENTS CENTS	YES YES
Ecuador	D.G.E.C.	IBM 370/135	CENTS	YES
Ethiopia	Central Statistical Office	IBM SYS/3	COCENTS	
Fiji	Ministry of Finance	ICL 1902	COCENTS	
France	U.S. Department of State	IBM 370/135	COCENTS	YES
Greece	National Statistical Service	U9400	CENTS	
Honduras	D.G.E.C.	IBM 360/25	CENTS	YES
Hong Kong	National Computer Center	ICL1903A	COCENTS	
Indonesia	Central Bureau of Statistics	ICL1903A	COCENTS	YES
Iran	Statistical Center	IBM 370/145	CENTS II-COCENTS	YES
Ivory Coast	Statistical Center	IBM 370/145	COCENTS	YES
Jamaica	University of West Indies	IBM 360/40	CENTS	YES
Korea	Bureau of Statistics	IBM 370/145	CENTS II-COCENTS	
Liberia	Ministry of Planning & Economic Affairs	IBM SYS/3	COCENTS	
Malagasy	Directeur de L'insae	IBM 360/40	CENTS-COCENTS	YES
Malaysia	Department of Statistics	ICL1904A	COCENTS	YES
Mexico	Directorate General of Statistics	IBM 360/50	CENTS	YES
Morocco	Info. Center, Prime Minister's Office	IBM 360/30	CENTS	
New Caledonia	Government Computer Center	IBM 360/25	COCENTS	
New Zealand	Department of Statistics University of Canterbury	IBM 370/145-ICL1904S Burr 6700	COCENTS COCENTS	YES YES
Nicaragua	Executive Office of Surveys & Census	IBM 360/30	CENTS	
Nigeria	National Census Office	IBM 370/145	CENTS	
Pakistan	Habib Bank Center University of Islamabad WAPDA, Lahore CSO, Karachi	IBM 360/40 IBM 360/44 IBM 360/30 IBM 360/30	CENTS II CENTS II CENTS II CENTS II-COCENTS	YES

COUNTRIES AND AGENCIES IN WHICH CENTS AND COCENTS HAVE BEEN INSTALLED (Cont'd)

Country or Agency	Installed at	Computer type	System Installed	System Active
<u>Country</u>				
Panama	D.G.E.C.	IBM 360/30	CENTS	YES
Paraguay	D.G.E.C.	IBM 360/30	CENTS	
Philippines	Bureau of Census and Statistics	IBM 370/135	CENTS-COCENTS	YES
	University of Philippines	IBM 360/30	CENTS	YES
	National Computer Center	FACOM 230-45	COCENTS	YES
	POPCOM	FACOM 230-15	COCENTS	
	Department of Agriculture	IBM 360/30	CENTS	
Saudi Arabia	Central Department of Statistics	IBM 370/135	CENTS-COCENTS	YES
Senegal	Statistics Office	IBM 370/145	CENTS-COCENTS	
Sierra Leone	Central Statistics Office	IBM 360/20	COCENTS	
Sri Lanka	Department of Statistics	IBM 360/30	CENTS II	YES
Sudan	Department of Statistics	IBM 360/30	CENTS	
Thailand	National Statistics Office	IBM 360/40	CENTS-COCENTS	YES
	U.S. Department of State	CDC 3100	COCENTS	YES
Trinidad	Office of the Population Programme	ICL1902A	COCENTS	
Upper Volta	National Institute of Statistics	IBM 370/125	COCENTS	YES
Vietnam	Government Computer Center	IBM 360/50	CENTS II	
Western Samoa	Government Computer Center (Am. Samoa)	IBM SYS/3	COCENTS	
<u>Agency</u>				
CELADE	Santiago, Chile	IBM 360/50	CENTS	YES
ESCAP	Bangkok, Thailand	CDC 3100	COCENTS	YES
Food & Agric. Org. of UN	Rome, Italy	IBM 370/135	COCENTS	
East-West Center	Honolulu, Hawaii	IBM 360/50	CENTS	
Tri-State Trans. Comm.	New York, New York	IBM 370/155	CENTS	
DULABS	Rosslyn, Virginia	IBM 360/65	CENTS-COCENTS	YES
U. of Chicago	Chicago, Illinois	IBM 360/50	CENTS	
U. of Hawaii	Honolulu, Hawaii	IBM 360/50	CENTS	
U. of Missouri	Columbia, Missouri	IBM 360/65	CENTS	
U. of Wisconsin	Madison, Wisconsin	IBM 360/65	CENTS	
United Nations	New York, New York	IBM 370/145	COCENTS	
NCR Center	Cairo, Egypt	NCR Century 100	COCENTS	YES
NCR Center	Athens, Greece	NCR Century 100	COCENTS	
IBM Center	Jakarta, Indonesia	IBM 370/135	CENTS	
IBM Center	San Salvador, El Salvador	IBM 360/30	CENTS	
IBM Center	Santo Domingo, Dom. Rep.	IBM 360/25	COCENTS	
ICL Center	New York, New York	ICL1902A	COCENTS	

Abbreviations: DANE National Administrative Department of Statistics (Columbia)  
D.G.E.C. Directorate General of Statistics and Census  
IBGE Brazilian Institute of Geography and Statistics  
ABM Afghan Business Machines Corporation



87. The development of such systems greatly expands the potential data base, and in some countries where the system is now fully operational, extensive studies have been initiated utilizing this data source. For example, in Brazil, IPEA has carried out studies of urban employment and income, with tabulations for each of 116 cities; derived "poverty indexes" for each of the 95 major cities, based on factor analysis of census and national household sample census data; and is examining acculturation patterns of rural-urban migrants, among other studies. While this data base does lend itself more to detailed study of cities or small regions, or of particular target groups in the population rather than to national aggregates, it would be useful if the status of these programs in individual countries could be determined. While U.S. Census Bureau helped establish the systems, they have not kept information on their subsequent development.

88. A range of data and studies of this depth will, however, be the exception. In many countries available census data will be scanty. There should, however, be enough to obtain a broad picture of urban living conditions and to estimate one or two indicators, such as number of persons per room, a commonly used indicator of degree of crowding of living conditions.

89. Registry data is likely to be similarly variable. While births and deaths are normally required to be registered, the figures obtained may not be reliable. For instance, it is estimated that in Latin America, in six countries the underregistration of live births is between 5 and 15 percent, and in another six countries, exceeds 15 percent. Elsewhere the situation is not likely to be better. Registration data may be better in other fields, e.g., transport, although geographical location of vehicle registration can be misleading as publicly owned vehicles may be registered in the capital and company vehicles at headquarters. Other data providing an indication of welfare, e.g., mortality, literacy levels, proportion of population wearing sandals, etc., may be available from published sources. Much information, however, can only be obtained by field work at the local level and is, therefore, beyond present possibilities.

90. In several countries the International Comparisons Project is generating data on prices for different cities or regions on a more comprehensive basis than before. In this project, being coordinated by University of Pennsylvania under partial Bank funding, national price data are being utilized for international comparative purposes. In most cases, preparation of national prices requires collection of price data from a sample of places. This disaggregated data may be accessible in the individual countries, listed in Table 2.

Table 2: INTERNATIONAL COMPARISON PROJECT, COUNTRY COVERAGE BY PHASE

January 1976

	Phase I		Phase II		Phase III
	Data for 1967	Data for 1970	Update to 1973	Add for 1973	Data for 1975
<u>Industrialized Countries</u>					
Austria					
Belgium					XX
Denmark				XX	
France					XX
Germany, Fed. Rep.		XX	XX		
Hungary	XX	XX	XX		
Ireland					
Italy		XX	XX		XX
Japan	XX	XX	XX		
Netherlands				XX	
Poland					
United Kingdom	XX	XX	XX		XX
United States	XX	XX	XX		
<u>Developing Countries</u>					
Argentina					?
Brazil					XX
Cameroon					?
Colombia		XX	XX		
Ghana					?
India	XX	XX	XX		
Indonesia					?
Iran					
Ivory Coast				XX	
Jamaica					?
Kenya	XX	XX	XX		XX
Korea					
Malagasy Rep.				XX	
Malaysia					?
Malawi				XX	
Mexico					XX
Morocco					XX
Pakistan					?
Peru					?
Philippines					?
Romania					XX
Sri Lanka					XX
Syria					XX
Thailand					XX
Tunisia					XX
Venezuela					?
Yugoslavia					XX
Zambia					XX

Source: Economic Analysis and Projections Department



#### 4. URBAN DEVELOPMENT POLICY AND PRACTICE

1/2/3  
91. Having obtained a picture of existing urban economic and living conditions, three principal issues related to urban development may usefully be investigated. These are (a) institutional structure for urban development, (b) existing policies and programs of urban investment with particular reference to shelter, and (c) likely future demands and immediate priorities. 1/

##### Institutional Framework

92. The institutional framework for policy in the urban development field is frequently confused and marked by fragmentation and overlapping responsibilities and poor coordination. This results in part from the different levels of government involved. At a minimum, there are two, national and municipal, with possibly provincial, state or other local levels in addition. A detailed analysis of the specific responsibilities and capacities of the various actors involved and of the policy making and planning processes will, in many instances, be a considerable task. 2/ An initial review should attempt to determine what the responsibilities of municipal and other local levels of government are, who is responsible for urban and regional planning, planning and implementation of housing and infrastructure development. The latter may be divided among several ministries and public agencies and corporations.

##### Housing

93. The interdependencies between the various elements of the urban development process have frequently been stressed, e.g., between job creation and location, land use and transportation, public services and housing. However, significant and separable issues can be raised in each of these areas.

94. Housing typically constitutes 15 to 20 percent of household expenditures and for all but the very wealthy it is usually the major goal of family saving efforts. This relative importance is in sharp contrast to the inability in most countries to meet people's aspirations in this field.

95. The census of population and housing, if available in adequate detail, will provide the most complete disaggregated picture of housing conditions. In addition to the availability of water, sewerage and electricity, this should provide data on type of construction, permanent (brick or

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1/ The WHO/IBRD Joint Program has carried out Water Supply and Sewerage Sector Studies in a number of countries which do provide considerable relevant data, particularly on the second and third of these issues, and these sectors will not be discussed here.

2/ For an example of a relatively extensive analysis of this type, see Annex II to Report No. 1087-PAK, Pakistan Urban Sector Survey, see also Annex II to Report No. 1147-IVC. Ivory Coast Basic Economic Report.



stone) or temporary (mud or timber), <sup>1/</sup> number of rooms, and persons per dwelling. While the average persons per room is frequently used as a measure of crowding, variations in this variable can provide a deeper insight into the housing problem. Thus in Zambia, in urban areas, the average occupancy rate in 1969 was 2.5 persons per room. However, just over 18 percent of the population (occupying about 22 percent of the dwellings) lived at less than one person per room, while 25 percent of the population lived at over four persons per room, predominantly in one or two-roomed dwellings. Such conditions suggest housing policies both providing only for the few and possibly resulting in misallocation of the stock which does exist.

96. A more detailed view of the role of housing in the economy may be possible from individual socio-economic or housing surveys carried out for planning studies. These may indicate the extent of subletting and multiple occupation, rentals paid, the degree of use of the dwelling for business purposes, the nature of property rights in land in formal and informal settlements and their transferability, and the size and organization of the construction and building materials industries.

97. Since detailed census data is often of quite recent origin, historical comparisons to indicate improvement or deterioration in housing conditions are seldom possible. Data may, however, be available on public housing construction or building permits which can provide a guide to the rate of construction of formal permanent housing. Given the estimated rate of growth of households, an indication of the growth of informal housing can be obtained. Data on water supply and/or sewerage connections can provide a companion picture.

98. Housing Policy. The major issue in housing policy usually is the level of service being provided in public programs and the consequent cost. Are public housing programs, whether consisting of dwelling construction or of serviced sites, too expensive for the majority of the population without subsidy? A useful measure is to estimate the proportion of the urban population able to pay the full cost of the lowest cost dwelling currently being constructed under the public housing program. <sup>2/</sup> As a rule of thumb, it has been assumed in the Housing Policy Paper that a household can afford to pay up to 15 percent of its income on basic housing costs. Thus, it has been estimated that in Mexico City, the cheapest dwelling now available with individual toilet and services costs US\$3,005 at 1970 prices. At an interest rate of 10 percent, no down payment, and a repayment period of 25 years, the monthly charge would be US\$27.60. This could be afforded by those with monthly incomes of over US\$184. Fifty-five percent of households in 1970 in Mexico City had incomes below this level and would effectively be priced out of such units.

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<sup>1/</sup> The latter should not automatically be equated with slums or squatter settlements.

<sup>2/</sup> See IBRD, Housing Policy Paper, June 1975.



99. The results of such policies are (a) that to make such dwellings available to lower income groups, significant subsidization of rents is required; (b) fiscal restrictions limit the extent of the program so that only a small proportion of the increase in urban households can be met; (c) overall expectations as to acceptable standards are raised to unrealistic levels (and possibly formalized in building codes); and (d) since such programs are normally limited to urban areas, and especially larger centers, a significant implicit subsidy to urban dwellers can develop. It may be possible to obtain some indication of the order of magnitude of this subsidy.

100. Private Residential Development. Privately financed residential construction (excluding squatter settlements and company financed housing) is generally limited in developing countries. This results from its high cost, due to prohibitive building codes, costly land acquisition procedures and building materials. In addition, financial institutions are typically poorly developed with limited funds. Terms of these institutions or commercial banks are often onerous and act to exclude the "middle income" groups from the possibility of purchasing a dwelling and increases their pressure on "low-income" housing efforts. It is desirable to identify the major public or private institutional sources of credit for construction or house purchase, the level of activity, and the nature of their borrowers.

✓ 101. Serviced Sites. If there is a program of serviced site development, does responsibility for it lie with the housing agency, and is there any attempt to combine these elements into a coherent program? To whom is the program directed, and what is the likely cost of home construction, given the standards laid down by the agency and the cost incurred in plot development? Can these be afforded by the lowest quartile of the population without explicit or implicit subsidy? The major source of implicit subsidization in such programs lies in undercharging for land.

102. Slum Improvement. Inadequate provision of serviced sites will have resulted in the development of "unauthorized" squatter or slum settlements. What is policy regarding these settlements? Is any government agency attempting to upgrade or improve these areas, and is this being accompanied by any regularization of title to land?

103. The corollary of high cost programs in a situation of overall financial and technical resource scarcity is a wholly inadequate provision of shelter in organized developments to which basic public services such as water, electricity and vehicular access can be provided. Based on costs of building materials, land and plot development (including unserviced plots), it may be possible to obtain an estimate of the type of housing which could be afforded by the different income groups. Such an estimate will inevitably be very approximate because of cost variations between cities and regions, but will provide a first indication of the extent of the mismatch between effective demand and existing programs. Some calculations of the "deficit" or "shortfall" may be available but frequently are made on the basis of one household per housing unit and on the provision of contractor-constructed public housing. Such estimates will not generally be useful. As noted in



para. 94, such units are likely to be beyond the ability to pay of half the urban population (unless shared by more than one household). The total investment indicated will also be beyond the immediate capacity of the country and the result is to create an aura of hopelessness around the housing issue.

#### Land Use and Transportation

104. Land Use. Lower income groups are frequently handicapped, not only by inability to obtain access to credit and to be able to afford existing schemes, such as they are, but also by being forced to construct what housing they can in locations unsuitable for other types of development. Thus, they are to be found on sloping or low lying swampy ground, subject to inundation, or often in peripheral locations far from employment opportunities or services. In smaller cities, the economic costs to the individual (if not the environmental discomforts) may be relatively slight. In larger cities the transport problem will also be dependent on the degree to which employment is available in dispersed locations. The extent of such problems are very much city specific but potential difficulties may be indicated by (a) dispersed patterns of urban development, (b) small public transport fleets, (c) physically adverse sites of any major cities, e.g., rugged or low-lying sites. It may be possible to obtain some indication of such conditions from nationally available data, including maps.

105. Dispersed patterns of settlement and/or large areas of undeveloped land may result from inappropriate zoning policies, <sup>1/</sup> maldistribution of land ownership and low or non-existent land taxes on undeveloped land. Indications should also be sought of the availability of land for urban development, its cost, and the land policy options available to the government (e.g., land taxing power and practice, right of condemnation, right of procurement at artificial prices). It is unlikely that a complete description can be made without major effort, but some indication of the potential severity of the problem may be possible.

106. The whole question of the nature of rights over land is extremely complex. Rights to land may be defined by a combination of codified laws of western origin, accepted current practice (e.g., in the accepted "rights" of squatters) and perhaps also traditional uncoded land laws. The nature of land rights will be an important factor in the design of shelter projects but, in a first review of urban problems, attention might be confined to a quick review of the general legal framework, with some emphasis on the questions of the means of access of low income groups to land. Do squatters make payments to legal or illegal subdividers of land; are their occupation rights traded and viewed as a first step to obtaining title?

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<sup>1/</sup> This can include public land ownership. Thus, frequently land owned by government, e.g., defense ministry, railroad, cannot be obtained for residential or other development purpose under eminent domain type procedures. Such land is, however, often well located with good transportation to main employment centers.



107. Transport. The land-use transportation problem is most acute in the largest cities--as is well known. However, since the largest cities are usually the only ones to have had any extensive city planning carried out (often focussed on the transport problem), there is frequently basic data available on the transport system. This will usually include the nature of the road and transport network, the vehicle fleet, probably some surveys of length of journey to work, modal split of travel, traffic flows and origin-destination data, and fare structure for buses, taxis or other modes of transport. Important information less likely to be available includes: the condition of the bus fleet, waiting periods in peak hours, the financial position of bus companies, travel characteristics of different income groups, expenditures on transport, time spent on travel, and availability and cost of para-public transport modes (jeepneys etc.).

#### Public Finance

108. Despite often forming a significant element in total public spending, local government finances are rarely included in national data on public revenues and expenditures. Partly because of this lack of demand, partly because fiscal control systems and professional staff are weaker at local levels, and the difficulty of collating information, overall data on local government finances would, in most instances, require a major effort to collect. Data generally will have to be sought at the local level. For that reason, studies may normally have to be limited to a small number of places.

109. The issues involved are as much institutional as economic. How is responsibility for investment in infrastructure and provision of services divided between central and local levels of government, public agencies and private corporations? What resources do these agencies have available to meet these needs? 1/ More detailed issues which may be addressed are the proportion of municipal revenue which is locally raised, trends in local revenues and expenditures, the incidence of the tax structure, the nature and distributive effects of national grants, and local control over expenditures (e.g., teachers' salaries). 2/ If local revenue is slight, is this because few tax sources are left to local governments, lack of local tax effort (i.e., available taxes such as property tax, entertainment tax, licenses, etc., not being used), inefficient collection (or underassessment) or because a wide range of services is locally managed on behalf of central government? A further significant issue is the buoyancy of the local tax structure, i.e.,

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1/ For a detailed study of local finances see Report No. 574-TH. A study of Public Finances in Thailand, Annex E - Local Government Administration and Finance in Thailand. A briefer study is contained as Annex IV to the Urban Sector Survey of Zambia, Report No. 490-ZA. For a study of a single city see Chapter VII of Manila - Urban Sector Survey, Report No. 1098-PH.

2/ A good general work on intergovernmental fiscal relations and local government finance is Oates, Fiscal Federalism, Harcourt Brace.



the extent to which revenues will increase with growth in incomes or inflation. Lack of buoyancy implies a need for frequent increases in tax rates which may be politically difficult, and may also be associated with a somewhat regressive tax structure.

110. Where utilities and housing are municipally operated, deficits (and arrears) in these accounts can be a major burden in local urban finances, and a source of liquidity problems. Alternatively, they may, if properly managed and services properly priced, make a net contribution to the local fisc. Significant issues here are the distribution of service benefits, adequacy and progressivity of the tariff structure and overall viability of the operations. Limited service, coupled with inadequate charges, can be a major element in creating local fiscal structure which, overall, is regressive. <sup>1/</sup>

#### Social Services

111. The higher level of health and education facilities in urban areas than in rural areas, is well known. <sup>2/</sup> At the same time, this higher level does not necessarily mean that these services are widely available to the population as a whole; (a) they may be inappropriate to the needs of many, especially the poor, and (b) they may be physically inaccessible. Thus primary schools must be located close to residential areas. However, it is common for schools or clinics not to be built in unauthorized squatter settlements because of their "illegal" nature. Where such settlements are large, this may effectively prevent utilization of the service by many households who cannot afford transport costs (if there are any buses). In these sectors, i.e., health, education, population and nutrition, a brief review of the location and accessibility of facilities is desirable, in addition to the general sectoral issues.

#### Future Needs

112. The proposals of the current or next five year plan should then be assessed in the light of this review of past performance. In particular, the ability of the housing program to begin to meet the requirements generated by increased urban growth, in addition to the needs already existing of those in unimproved slum areas, should be investigated. Assessment of the "right" level of investment in urban infrastructure and shelter, as compared to other sectors, is as elusive a concept as between any two sectors. As a rough guideline, however, data obtained for the Housing Policy Paper indicated that residential construction makes up as much as 20 to 30 percent of gross fixed capital formation in countries giving emphasis to housing, and between two and five percent of GDP in most developing countries. Limited evidence indicates that investment in housing rises faster than GDP growth at low

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<sup>1/</sup> A series of studies of municipal finances have been prepared as part of research project RPO-270, on Ahmedabad, Bombay, Bogota, Cartagena, Seoul, Jakarta, Kingston and Tunis. Principle conclusions are being summarized in a report to be issued.

<sup>2/</sup> See IBRD Education Sector Working Paper and Health Sector Policy Paper.



income levels but tapers off. Thus, the share of residential construction in GDP will tend to be higher in higher income (and more urbanized) countries. An estimate of past or planned investment in residential construction could indicate a priori whether there may reasonably be scope for increasing overall investment in shelter, or whether priority should be accorded to adoption of more appropriate standards.

## BIBLIOGRAPHY

### A. Urbanization and Regional Development

- Bendavid A., 1972, Regional Economics for Practitioners, Praeger.  
Straightforward review of basic tools for regional economic planning.
- Brown A.J., 1972, The Framework of Regional Economics in the United Kingdom, London, Cambridge University Press.  
An analysis of regional elements of economic change in Britain and regional economic policy.
- Conroy, M.E., 1975, The Challenge of Urban Economic Development, Lexington, Saxon House.  
While U.S. focussed is a useful policy-oriented review of the state of the art on urban economic development - urban economic structure, income growth, stability and distribution. Bibliography.
- Czamanski, S., 1973, Regional and Interregional Social Accounting, Lexington, Saxon House.  
Detailed discussion of regional accounting.
- Friedmann, J., 1973, Urbanization Planning and National Development, Sage.  
A discussion of urbanization and regional planning based on a core-periphery model of spatial development, drawing principally on Latin American experience.
- Hansen, N.M., ed., 1974, Public Policy and Regional Economic Development, Cambridge, Ballinger.  
Good set of papers analyzing regional policies in nine countries.
- Kuklinski, A.R., ed., 1972, Growth Poles and Growth Centres in Regional Planning, Mouton, The Hague.  
Set of papers on growth pole and growth center ideas produced by UNRISD, with discussion of approaches in eastern and western countries. UNRISD also produced, as companion, set of volumes of regional development in countries of major world regions: (1) South and South-east Asia; (2) U.S.A.; (3) Latin America; (4) Eastern Europe.
- Moseley, M E., 1974, Growth Centres in Spatial Planning, Pergamon Press.  
Concise discussion of urbanization policy, the role of growth centers and problems of implementation.
- Richardson, H.W., 1973, The Economics of Urban Size, Lexington, Saxon House.  
Best review of state of the art in this area. Good bibliography.
- Richardson, H.W., 1975, Regional Development Policy and Planning in Spain, Lexington, Saxon House.  
Review and analysis of Spanish Regional Development and Planning since early 60's.



✓ Ford Foundation: 1973, International Urbanization Survey.

A series of reports were prepared on individual countries. These are of variable quality but can provide an initial background. Countries covered were: Jamaica, Brazil, Colombia, Venezuela, Peru, Chile, Nigeria, Kenya, Zambia, Morocco, Turkey, India, Thailand.

U.S. Department of Commerce, Bureau of Census 1975, The Methods and Materials of Demography. 2 vols.

A complete review of demographic methods.

United Nations, 1974, Manual VIII. Methods of Projections of Urban and Rural Populations. ST/ESA/SER.A/55.

A review of methods including that used for U.N.'s own projections.

Brunn, S.D., 1971. Urbanization in Developing Countries, an International Bibliography, Michigan State University.

Latin American Studies Center and Center for Urban Affairs.

A slightly dated but extensive bibliography of the field.

Bank Reports

IBRD Report No. 38-BR 1973, The Economic and Social Development of Brazil, Volume IV "The Northeast Development Effort".

IBRD Report No. 1154-CO 1976, Urbanization, Internal Migration and Spatial Policy in Colombia.  
Analysis of migration flows and urbanization over past decade. Reviews recent spatial policy and makes preliminary migration to 1985.

IBRD Report No. 1080-ME 1976, The Economic Development of the Isthmic Region of Mexico Volume I: The Text, Volume II: Tables, Volume III: Non-Statistical Appendices, Volume IV: Maps, March 30, 1976.

IBRD Report No. 490-Za 1974, Urban Sector Survey of Zambia.

IBRD Report No. 1147-IVC 1976, Ivory Coast Basic Mission Report Annex VI, "The Urban Sector".

IBRD Urban and Regional Economics Division Report No. 76-1, Upper Volta - Background to Regional and Urban Development.

IBRD Urban and Regional Economics Division Report No. 76-3, Mali - Background to Urban and Regional Development.

IBRD Report No. 207-YU 1973, The Economy of the Socialist Autonomous Province of Kosov (Sapk) Yugoslavia.

IBRD Report No. 508-YU 1974, The Economy of the Socialist Republic of Bosnia-Herzegovina Yugoslavia.

IBRD Report No. 1126-YU 1976, The Economy of the Socialist Republic of Montenegro, Yugoslavia.

IBRD Report No. 1092-MOR 1976, Special Economic Report on Regional Development in Morocco.

IBRD/PBO. 1975, The Development of Kermanshahan. From URED.

IBRD/PBO. 1975, A Development Plan for Zanjan 1354-61.

IBRD Report No. 1987-PAK. Pakistan Urban Sector Survey.

IBRD Report No. 502-IND 1974, A Framework for Regional Planning in Indonesia.

Zachariah, K.C. and Pernia, E.M., 1975. Migration in the Philippines with Particular Reference to Less Developed Regions of the Country. IBRD mimeo.

IBRD Working Paper No. 151., 1973. Some Economic Interpretations of Case Studies of Urban Migration in Developing Countries.  
A review of field surveys of migrants and non-migrants in 15 developing countries. ✓



B. Urban Development and Poverty

Breese, G.F., ed. 1969, The City in Newly Developing Countries, Prentice-Hall.  
A set of readings on urbanization in developing countries, and economic, social and geographic aspects of cities and city growth.

Neutze, G. Max., 1973, The Price of Land and Land Use Planning: Policy Instruments in the Urban Land Market. OECD.  
An evaluation of land control instruments.

Oates, W.E., 1972, Fiscal Federalism, Harcourt Brace.  
A good, but U.S. focussed, review of the issues of allocation of budgetary functions between levels of government and the economic consequences of having several financial jurisdictions in a country.

Smith, W.F., 1971, Housing the Social and Economic Elements, Berkeley.  
A good general discussion of the social role of housing and analysis of the economics of the housing market.

U.N. Department of Economic and Social Affairs, 1973-1975, Urban Land Policies and Land-Use Control Measures. In seven volumes. I. Africa; II. Asia and America; VII. Global Review.  
Large quantity of information but does not cover all countries.

Bank Reports

IBRD, 1972, Urbanization Sector Working Paper ✓

IBRD, 1975, Working Paper No. 211. The Urban Informal Sector.

IBRD Report No. 1098-PH 1976, Manila Urban Sector Survey.

IBRD, 1975, Housing Sector Policy Paper.

IBRD, 1974, Site and Services Projects. ✓

IBRD, 1974, Working Paper No. 179. Urban Land and Public Policy: Social Appropriation of Betterment.

Doebele, W.A., 1976, Land Policy in Seoul and Gwangju, Korea, with special reference to Land Readjustment.

IBRD, 1975, Working Paper No. 222. Taxation and the Urban Poor in Developing Countries. ✓

IBRD Report No. 574-TH 1974, A Study of Public Finances in Thailand Volume IV - Annex E. Local Government Administration and Finance in Thailand.

IBRD, 1975. Document Available on Loan, Vol. XVI No. 22, Special List on Economic and Social Aspects of Urbanization.

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## OFFICE MEMORANDUM

TO: Mr. E. V. K. Jaycox, Director, Transportation and Urban Projects      DATE: May 17, 1976

FROM: Alastair Stone, Chief, *Alastair Stone* Urban Operations Review and Support Unit

SUBJECT: Note on the Status of the Urban Poverty Program

1. The content of this note is derived largely from the action program of the Urban Poverty Task Group, set out in the October 23 memorandum. The discussion is divided into two categories: (a) Policy Issues; and (b) Operational Issues. In summary, progress has been achieved but at a slower rate than was anticipated. The policy work on Employment, Small Scale Enterprises, and Employment Impacts of Industrial Projects is on schedule, however, further development of the macro-economic framework and the land issues paper have been delayed by the required completion of work receiving higher priority. Operational work consisting primarily of targeting for the Urban Poverty Program at both the regional/country and sector levels, has been complicated by the changing budget situation. Regional Urban Poverty Programs (RUPPs) have been developed for each region but with the changed budget are now being reformulated. Lending program and project content targets in small scale industry and urbanization have been designated, and project content targets set in water supply and sewerage with lending targets under discussion. Targeting in education, nutrition and population projects is progressing but no definite positions have been taken. In these circumstances little quantitative reporting is possible, however, tabular formats are being developed for a full report in July.

2. Policy work. Draft policy/issues papers on Employment (Leiserson) and on Small Scale Enterprises (Gordon) have been released for, and are now undergoing extra-departmental review. The close interrelationship between these two subject areas has resulted in some overlapping (and spillover into other areas) which is being resolved in a review process. The Small Scale Enterprise paper is scheduled for release in final form on June 15, the Employment paper for staff level review May 17. The background paper on Employment Impact of Industrial Projects (Kalmanoff/Westphal) is also under review and the Guideline for Improving Industrial Project Design based thereon is scheduled for review end July. The urban land policy/issues paper being prepared by Messrs. Dunkerley/Keare is now scheduled for extra-departmental release by September 30, 1976. The further development in DPS of the macroeconomic framework (Holsen) has been delayed in favor of work given higher priority, but will be taken up again in June. A background paper on An Agenda for Urban Research has been reviewed by the Urban Poverty Task Group and submitted to the Research Committee.

3. Operations. Progress has been viewed from the dual perspectives of country programming and sectoral programming. A first step in establishing an information system required to review such programs has been taken by this unit by canvassing the regions for data on the location, project cost, and type of urban impact for all projects now identified in the lending program (FY77-80). This information will be mapped during June and will form the basis of a discussion by country and by sector of regional urban poverty programs (RUPPs) which are also being prepared by end of May. The outcome of the



discussions will be fully reported in our July report.

4. It is planned that the information system will have four formal sources of data (i) RUPPs, (ii) timetables and CPPs modified to show location and type of project, (iii) city specific data sheets, (iv) project specific data sheets (attachment to Project Brief). All except (iii) are adaptations or additions to existing documentation. The city sheets will be the primary information source for setting multisectoral strategy and project impact evaluation for specific cities in which the Bank has several operations scheduled. Draft city data sheets will be circulated for comment by beginning of June and their implementation scheduled as part of the RUPPs. Draft project specific data sheets will be circulated for urban, urban transportation, and ports beginning of June for comment and as examples to other sectoral departments. An information system for UPP will be in operation by August as scheduled.

5. As additional background to the review of the regional programs, the Bank's definition of the absolute poverty group (both urban and rural) has proceeded to evolve further in a series of meetings between CPS/DPS and the senior economists of the regions. Concepts have been agreed and working estimates by country will be available by July 1. Further refinement of these estimates will be pursued as part of the new country economic work incorporating concerns for the urban and rural poverty groups through a pursuit of spatial resource allocation questions. A first draft of the guidelines for this work has been circulated from this unit and discussions with the regional economists has taken place. A second modified draft of these guidelines is due for release May 17. These guidelines will include country data sheets modified to reflect UPP concerns. A program of support for the country economic work incorporating these concerns and tailored to the RUPPs is evolving on an operational basis. Support for this activity has already been arranged in the form of consultants for missions in Brazil and special economic studies on related topics in Ethiopia, Philippines, Zambia, and Egypt. This work is an additional claim on the time of country economists, and some recognition and adjustment of their work program will be required. This is being assessed in formulating the RUPPs.

6. The presentation of the RUPPs in a manner which allows a determination of its reasonableness will be easier with the new absolute poverty figures and the location and description of existing identified projects. As an interim response, a partial analysis of available proposed lending programs (since modified) was undertaken to assess the potential response to the urban poverty policies in program terms. The primary analysis consisted of comparing the program content in the years FY79-80 with the program content in the years FY77-78 on the expectation that significant changes would be evident in the later period when compared to the first. As noted these programs have been reformulated again since this exercise, but the general indications bear reporting. The only program changes evident in the analysis were in Industry/DFC projects and Urbanization projects. The potential for project content changes remains for all sectors and it is here that opportunities for major responses to the urban poverty policy can most easily be captured. Nonetheless, it is obvious that as indicated in the Interim Report of October 23



May 17, 1976

of the Urban Poverty Task Force, reallocations within the existing urban lending program will be required to achieve any impact on urban poverty. Ultimately the new country economic and sector studies will help guide this reallocation but in the intervening period somewhat arbitrary sector program targets related to the magnitude of the urban poverty problem expressed in terms of people and per capita costs, will be required to generate an active response in the regional programs. A dialogue along these lines has been established with the CPS sector departments, who are carrying this dialogue to the regions. A description of the status of the UPP in each sector follows.

### Urbanization

7. Extensive discussions between the Department and the Regions regarding the FY77 and FY78 lending program of Urbanization projects have taken place. In summary, in FY77 it is expected that 10 Urbanization projects will go to the Board with a minimum of 1 and a maximum of 3 projects in each Region. In FY78, again with a fairly even distribution by Region (except for 6 m in LAC) there are 11 potential Urbanization projects. In FY79 there are 14 projects and 2 reserve projects. Except for 3 projects in urban transport these are sites and services and/or squatter settlement upgrading projects with appropriate health/nutrition components and small scale enterprise components where possible. The projects in each of the three years FY77, 78, 79, will directly benefit respectively 3.4, 1.3 and 4.1 million of the target group.
8. In support of the Urbanization projects (and other projects) we have either contracted for or have a substantial agreement regarding contracts for operational research on a study to be conducted jointly with DPS, of the broader implications of Bank projects on city finances. This study will utilize data collected from previous DPS studies of the fiscal systems existing in several cities and will produce at its completion in October 1976, guidelines for application by the Urbanization operating staff. A major element of operational research is in small scale enterprises which will utilize the considerable theoretical and practical experience of Michigan State University. This work has been formulated in association with all interested groups in the Bank including DPS rural development group. It will be conducted in the context of one or two projects yet to be identified probably in West Africa where the Michigan group has a considerable data bank on small scale enterprises. Many generalizations concerning this sector, untested empirically until now, can be examined using this unique, computerized data bank. This should lead to faster and better project design. The work will commence in July and run through October. A third exercise, orientated to directed operational support, is presently underway with a consultant working with the Urbanization staff to develop a resource location study in Ethiopia to guide project identification for urban, social and economic investment. A similar operational exercise to develop the SSE element of the next Urbanization in Zambia is being supported with a consultant. As an example of innovative operational research within a project, the second urbanization project in Indonesia includes the development of a design guideline for pit privies. This will enhance the knowledge and possible application of this low cost form of human waste



disposal within Indonesia and elsewhere. The progress in establishing an information system to monitor the urban project portion (and all others) of the UPP has been discussed in para. 4 above. In addition to the program monitoring, a comprehensive guideline for establishing a monitoring system for supervision and evaluation of each Urbanization project has been completed and is about to undergo operational evaluation.

#### Industry and DFC

9. Program targets for small scale enterprises have been outlined in the policy/issues paper mentioned above (para. 2). Briefly they suggest a total of at least 50 projects or specific project components involving Bank loans totaling at least 400 million should be in the lending program for the period FY77-80. For the same period, 10% of DFC lending is targeted for small scale enterprises; at least 10 experimental projects to be completed in that general subject area; at least 25% of the total amount of Bank lending to DFCs which have subprojects with an average fixed investment per direct job of no more than US\$15,000<sup>1/</sup>; and at least eight industrial estate projects to support small scale enterprises. These are substantial increases in lending for these areas but as noted above these targets and their predecessors have had the impact of moving the lending program to give emphasis to those items important to the urban poverty program. The inclusion of this ambitious program in the operational lending program will be actively pursued in the coming months. This task is somewhat complicated by the uncertainties surrounding the organization of responsibilities in this area in the Bank.

10. Research in support of this type of intervention comprises guidelines for improving industrial project designs which are to be released for extra-departmental review end July; the Michigan State small scale enterprise work noted above under Urbanization which will be applicable to industry and probably to off-farm employment for rural projects as well; and consultant support for a sector/country economic exercise in the Philippines to analyze the economic linkages between a small town and its hinterland consisting of several villages which ultimately will define a small scale enterprise project in this context. These studies and others to be undertaken, may have the impact of altering the targets. A monitoring system for supervision and evaluation of SSE projects is to be established by December 1976.

#### Public Utilities

11. The lack of basic data on the existing situation in regards to water supply is hampering target setting of programs in this sector as in others. Nonetheless, a second round of discussions is being conducted with the regions with the view to setting program targets for this type of project. An important input to these discussions will be the results of the WHO's 1975 survey of water supply, the results of which are expected to be released to the Bank (after some difficulties) in the near future. Similarly, an analysis of the lending program for waste disposal is even more restrained by the lack of data.

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<sup>1/</sup> This figure is under review towards a setting of a lower level.



However, the regions are compiling lists of principal cities in which sewerage schemes appear essential within the next decade as a guide to target setting. As previously reported, targets regarding content of projects in this sector have already been agreed and program targets are expected to be established and reported on in the July report.

12. At the same time as the above interim targets for programs are being established, background research papers are being prepared to guide the setting of an implementation of long-run targets in this sector. These investigations, some of which will have an impact on the sector beyond the urban poverty program, presently include: a broad paper on the issues in providing water supply service for the urban poor; a study of design criteria and investments staging of water supply in the case of Colombia; an investigation of the employment impact of water/sewerage investments; a paper on the estimation of marginal costs as an input to tariff setting policy due June 1976. Investigations planned for the near future are: state of the art paper on wastewater re-use; and an investigation into unaccounted-for water. The Bank's knowledge in this sector with respect to the urban poor will also benefit from: the cooperative program with WHO, who is presently reviewing water supply design criteria and consumption standards; and an association with IDRC on their investigation of alternatives to conventional sewerage for human waste disposal and the use of such wastes in food production. A first seminar on this subject has been given to Bank staff.

#### Education

13. The programming of the region's response to the implications on education of the UPP has progressed to where the size of possible target groups by country, by region have been estimated by CPS and circulated. However, as indicated above, analysis of the proposed lending programs of the regions indicate that only West Africa shows a significant increase in this component when comparing the lending program for FY77-78 to the lending program for FY79-80. At this point, no program or project content targets have been defined, however, these are under discussion between CPS and the regions. A detailed analysis of this element of the lending program will appear in the July report.

14. An initial background paper has been prepared by CPS and circulated to the regions. This paper outlines the educational and training requirements relevant to the urban poverty target group and further indicates existing constraints on the delivery of such services to this group. The paper further explores possible interventions. A full basic paper on the problem and prospects of this area of the UPP is under preparation for release early in July. A consultant has been employed to assist in the preparation of this paper and the other work indicated above. The paper will explore among other things the possible program and project content targets required to implement the urban poverty policy and will further specify the data required to be collected to monitor their progress.



May 17, 1976

Nutrition

15. As mentioned above under Urbanization, a health/nutrition component is being included in sites and services, and squatter settlement upgrading projects. The nutrition element in these projects as with the other elements is limited in scope to the area of the project. The nutrition problem associated with urban poverty has been recognized as being far more extensive and a comprehensive background report has been commissioned. This report will indicate how the Bank might assess the magnitude and nature of urban malnutrition and how that problem might be effectively approached through nutrition interventions financed by the Bank. The work is on schedule and a final report is expected at the end of June.

Population

16. All work on UPP targets, interventions etc. is in abeyance pending the results of the President's Review Panel to be reported in July.

AStone:dd

cc: Messrs. Baum, van der Tak, Israel (CPS Advisory Staff)  
Regional Projects Directors  
Regional Asst. Projects Directors  
Regional Programs Directors  
Senior Economists (Programs)  
Regional Projects Division Chiefs (exc. Agric. & Rural Dev.)  
Department Directors, CPS  
Blaxall (P&B)  
Leiserson (Dev. Econ.)  
Davis, T. (CPS)  
All Transportation and Urban Projects Staff

## OFFICE MEMORANDUM

*Attwood*  
*Area*

TO: Regional Coordinators

DATE: April 23, 1976

FROM: Alastair Stone, Chief, *Urban* Operations Review and Support UnitSUBJECT: Urban Lending Program Reiteration FY76-81

1. Since you have recently been advised of the need to change your regional lending programs to take account of reduced availability of Bank funds, you may wish to undertake other revisions in the same process. With this in mind, I pass along for your consideration results of a very preliminary analysis we have undertaken.

2. For the four regions for which recently-prepared five-year lending programs were available, an analysis of the sectoral composition of the lending programs produced the results shown in Table 1 attached. DFC, Education, Water Supply, Industry, and Urban Projects were the sectors stressed in the recent Interim Report of the Urban Poverty Task Force. There is an evident perceived conflict in the regions between increased stress on projects to aid the urban poor and the continuing stress on rural development. For this reason, the table below shows percentages of lending programs net of agriculture and rural development. The Interim Report's tentative targets are included for lack of completion of more meaningful Bank-wide targets.

Selected Sectors, Lending Program as % of Total Regional Programs Less Agriculture

	"Target" Interim Report	E. Africa		W. Africa		E.A. & Pacific		South Asia	
		77-78	79-81	77-78	79-81	77-78	79-81	77-78	79-81
DFC	15	6	10	7	14	21	17	17	12
Education	7	17	17	7	12	7	8	4	4
Water	8	12	8	9	4	5	9	5	3
Industry	15	6	12	6	5	9	2	16	5
Urban	7	9	7	7	10	5	11	7	6

3. One would expect that the magnitude of response to new priorities would increase over time to allow for identification and preparation, and to allow for completion of projects already well along in the pipeline. To get an idea of the policy response therefore, it is useful to compare FY77-78 where program changes are difficult and the later years of the program which can still be changed with little deadweight loss of staff time already invested.



April 23, 1976

4. The results are obvious from the table. In only two of the sectors singled out for special stress (DFC and Urban) have as many as two regions increased appreciably the percentage allocation in the 79-81 period relative to the 77-78 period. Each of the other sectors shows only one region increasing substantially the relative allocation, with reductions in the other three regions in most cases.

5. It is our intention, at this point, to provide this preliminary analysis of an already outdated lending program for information. Assessment of the program will come after possible changes in the design of projects to reflect the urban poverty emphasis are added to lending program aggregates. From the UPP program notes you have sent us, we are preparing a sector by sector analysis of projects, which we intend to review with the Projects Departments of CPS and, in conjunction with them, with the regions. Ultimately a combination of the results of these exercises, using the new lending programs that you are now preparing, will form the basis of a detailed report to management in July on progress in the urban poverty program.

GBeier:dd

Distribution: Messrs. Barry (E. Africa); Denning (W. Africa);  
Ruddy (E. A. & Pacific); Street (S. Asia);  
Finzi (EMENA); Perez (LAC)

cc: Messrs. Jaycox, Dunkerley, Churchill

Table - UPP TARGET AND REGIONAL DING

	Targets (Undated) in Interim Report		Eastern Africa				Western Africa			
	% including Agriculture	% excluding Agriculture	% inc. ag.		% exc. ag.		% inc. ag.		% exc. ag.	
			77-78	79-81	77-78	79-81	77-78	79-80	77-78	79-80
Agriculture	29		39	37			38	46		
DPC	11	15	4	6	6	10	5	8	7	14
Education	5	7	10	11	17	17	4	6	7	12
Power	9	13	5	7	8	11	9	4	15	8
Water Supply	6	8	7	5	12	8	5	2	9	4
Transportation	14	20	22	18	36	28	28	20	45	38
Communications	2	3	2	3	4	5	1	4	1	8
Industry	11	15	4	8	6	12	4	2	6	5
Population	1	1	0	-	0	1	0	-	0	1
Tourism	1	1	1	5	2	2	1	1	2	2
Urban	5	7	5	4	9	7	4	5	7	10
Other	7	10	0	-	0	-	-	0	1	0

	East Asia & Pacific				South Asia			
	% inc. ag.		% exc. ag.		% inc. ag.		% exc. ag.	
	77-78	79-81	77-78	79-81	77-78	79-81	77-78	79-81
Agriculture	40	41			42	43		
DPC	12	10	21	17	7	9	13	17
Education	4	5	7	8	0	2	0	4
Power	11	9	18	15	9	8	15	15
Water Supply	3	5	5	9	4	3	6	5
Transportation	18	18	30	30	8	8	14	14
Communications	0	1	0	2	3	2	6	4
Industry	5	1	9	2	6	9	10	16
Population	3	2	4	4	1	1	1	1
Tourism	0	1	0	2	0	-	0	-
Urban	3	6	5	11	4	3	7	6
Other	0	0	0		16	11	28	19



## OFFICE MEMORANDUM

TO: Chief Economists

DATE: April 20, 1976

FROM: *WCB*  
Warren C. Baum, Vice President,  
Central Projects StaffSUBJECT: Improving the Definition and Measurement  
of Poverty Income Levels

1. The emphasis being placed in Bank project design and policy statements, on broadening the impact of development projects, increases the need to expand our currently limited knowledge of the nature and extent of poverty in our client countries. Last year you carried out an exercise to estimate poverty levels of income for rural people and the rural populations living below these levels. There is now a need to develop improved estimates of both rural and urban poverty income levels <sup>1/</sup> and, to the degree possible, to utilize definitions and methodology which provide an element of consistency between the rural and urban estimates. ||

2. The data base from which to prepare these estimates is poor and will not be quickly improved. Hopefully, one result of increased emphasis by the Bank and other agencies on consumption and income distribution data will be to induce more governments to attempt to collect such data or to speed up analysis and tabulation of information they already have.

3. What is needed now is a quick inventory of poverty under the proposed definition in order to obtain a better feel for the magnitude and distribution of the problem. These results will assist in guiding the overall Bank strategy towards poverty and in identifying areas in which additional data are required. Given the known weakness of the data base in many instances, some emphasis should be given to an assessment of the credibility that can be attached to the various country estimates so as to identify particular gaps in knowledge.

4. In the first exercise the Agriculture and Rural Development Department asked country economists to estimate directly both absolute and relative poverty levels. While information being requested now will enable relative levels to be estimated, principal emphasis is being given to data providing absolute measures of poverty. This focus is adopted in order to provide initially an improved foundation for developing comparable and consistent country estimates of rural and urban target populations. <sup>2/</sup>

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<sup>1/</sup> Preliminary urban estimates were obtained last year by utilizing the rural figures which you prepared. See, Interim Report of Urban Poverty Task Group, March 29, 1976.

<sup>2/</sup> These target populations are likely to exceed (and will include) the populations estimated as being below the absolute poverty level of income.



Proposed Task

5. It is proposed that revised estimates of levels of poverty, distinguishing between rural and urban areas, be made for each country by July 1, 1976. The interim report of the Urban Poverty Task Group accepted that the definition of absolute (as opposed to relative) poverty should be based primarily on the cost of a nutritionally adequate diet. 1/ The proposed method may be summarized:

(a) Nutritional Cost. As far as possible this estimate should be based on the typical food basket of lower-income groups. In many countries food consumption at these income levels falls below the recommended FAO calorie intake. However, the composition of the diet generally provides an adequate balance of carbohydrates, proteins, and other nutrients. It is therefore proposed that the cost of a nutritionally adequate food intake of this composition be determined, by inflating the typical food basket.

In a significant number of countries, household budget or other survey data will not be available. In this situation, it is recommended that rural and urban estimates be based on the cost of an adequate staple-based diet. Using "typical diet" data from another country of similar income level and characteristics, the cost of an adequate intake should be based on the relative costs of the staple-based diets in the two countries.

(b) Non-food Cost. This should be the actual expenditure on non-food items by the lower-income group, adjusted in the same proportion as food expenditures.

Work sheets outlining the estimates requested, together with explanatory notes, are attached. Further enquiries should be directed to the Urban or Rural Operations Review & Support Units. A/B

6. It is recognized that this method is less than ideal. In the longer term it will be desirable to move towards a methodology based upon a clearly defined basket of needs. However, the difficulties of determining and costing minimally adequate diets 2/ and standards for non-food consumption are considered to be too great at this time to warrant an attempt to determine poverty income levels on that basis. The proposed approach will assist in beginning to build up a data-base from which definition of target populations for rural and urban projects in individual countries can be improved.

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1/ The many and difficult problems related to such a definition are discussed at length in Working Paper No. 227, On the Statistical Mapping of Urban Poverty and Employment, January 1976.

2/ In addition, it is not clear that a definitive "minimal nutritionally adequate diet" could be determined; see Attachment 1.



7. Related work will also be proceeding on: the concept and measurement of relative poverty; the refinement of the country estimates, e.g., for size of place and by major region within a country; and the relationships between income levels and employment opportunities or the deprivation of particular services (e.g., water supply, education) and "packages" of goods and services (e.g., housing) in defining target groups for Bank lending. This work will proceed initially only for a selection of countries, and generally subsequent to this task. Country economists will not be assigned the major burden of this work, though their advice will have to be sought. We will begin to pull together the various strands of this work only at a later date when we are better satisfied with our definition and measurement of both the poverty income levels and the minimal service standards which should be applied in particular contexts.

Attachments (4)

cc: Mr. Chenery  
Regional Vice Presidents  
Programs and Projects Directors  
Urban Poverty Task Group

DKeare/JEnglish/EVKJaycox:ncp

Urban and Rural Poverty Levels. Work Sheet A

1. Country
2. Year for which data provided.
3. Income level (a) Total Personal Income = per capita  
(see Notes) (use local currency)
- (b) Absolute Poverty Line 1975  
(from Work Sheet B)
  - (i) Per capita per year. Rural =  
Urban =
  - (ii) Per household per year. Rural =  
Urban =
4. Average household size Rural  
Urban
5. Population - Country Total in 1975 =  
Rural Population = %  
Urban Population = %
6. Population in or near Poverty:

	Urban		Rural	
	Percent	Number (millions)	Percent	Number (millions)
(a) Population below absolute poverty line				
(b) Sensitivity Analysis - Population below:				
(i) absolute poverty level x 0.75				
(ii) " " " x 1.25				
(iii) " " " x 1.50				
(iv) " " " x 2.00				



NOTES ON WORK SHEET 'A'

"Total Personal Income" would probably be derived by using as a proxy, "Households Income, including private unincorporated non-financial enterprises" which is defined by the United Nations. 1/

Households Income is derived by:

- (a) subtracting from National Income the following items:
  - (i) Savings of corporations.
  - (ii) Direct taxes on corporations.
  - (iii) Government income from property and entrepreneurship.
- (b) adding in the following items:
  - (i) Interest on public debt.
  - (ii) Interest on consumers' debt.

Assistance on these National Accounting matters may be obtained from the Economic and Social Data Division of the Economic Analysis and Projections Department of DPS.

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1/ UN. ECOSOC. A System of National Accounts, 1968.

URBAN AND RURAL POVERTY LEVELS

Work Sheet B

Date for which basic data obtained.

	<u>Urban</u>	<u>Rural</u>
	Cost/expenditure in local currency	
(1) Food Expenditure of 20th Percentile (per person per month)	-----	-----
(2) Adjusted Expenditure to meet nutritional requirements.	-----	-----
(3) Cost of nutritionally adequate cereal- based diet (per person/month)	-----	-----
(4) Non-Food Expenditures of 20th Percen- tile (per person/month)	-----	-----
(5) Adjusted Non-Food Expenditure.	-----	-----
(6) Absolute Poverty Line. (2) + (5) (per. person/month)	-----	-----
(7) Absolute Poverty Line - 1975 prices		
(i) Per person per month	-----	-----
(ii) Per person per year	-----	-----
(iii) Per household per month	-----	-----
(iv) Per household per year	-----	-----

Data Reliability Rank on scale from 1 to 4 (see notes)

Personal Income

Income Distribution

Food Expenditure

Food Prices

Non-Food Expenditure



## NOTES ON WORK SHEET 'B'

The problems of defining "minimum" needs or "typical" food baskets are well known. It is recommended that, for Bank purposes, we should estimate the poverty level for the cost of a nutritionally adequate diet, based upon a typical low-income food basket. It is recommended that the 20th percentile of the household income distribution be taken as representative of the lower-income groups. 1/ Where household budget surveys are available this should be possible. In many countries food consumption at this income level will fall below the recommended FAO calorie intake, but the composition of this diet generally provides a satisfactory balance of carbohydrates, proteins and other nutrients. 2/ It is therefore proposed that the cost of an adequate diet be obtained by adjusting actual expenditure by the 20th percentile group upwards (or downwards) to meet the recommended calorie intake.

### I. Household Budget Data Available

Line (1). Obtain from household budget surveys or other source, separate estimates of the expenditures on food of households at approximately the 20th percentile of the income distribution in both urban and rural areas. This should be converted to a per person basis, using the numbers of persons per household in the corresponding income group.

Line (2). (a) Where the data source contains data on quantities of different foods eaten, the caloric content of the daily intake per person for this typical low-income food basket can be estimated directly. (Calorie contents of a range of common foods are summarized in Table 3, Attachment 1.)

(b) When this information is not directly available, estimate the quantities consumed and the daily calorie intake from expenditure data, utilizing price data for the period of the survey.

(c) Estimate the proportionate change in intake of this typical diet to obtain the minimum nutritional needs for the country based on FAO estimates. (Table 2, Attachment 1, contains estimates of per capita requirements by region. If these appear inaccurate for a particular country, a specific estimate can be prepared utilizing estimates of need based on age and sex distribution of population, average body weight, summarized in Table 1, Attachment 1.)

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1/ Since income groupings in household surveys do not conform to decile or quintile ranges, it is recommended that the group within which the 20th percentile falls be used. Judgment will be required in executing this procedure.

2/ In the few instances where this is not the case, which will most likely occur with diets based on starchy roots, it is recommended that an estimate be made of the cost of an appropriate protein supplement.

(d) Adjust the per capita expenditure of the 20th percentile up or down by this factor to obtain the daily cost of a nutritionally adequate intake.

For example: The food basket of the 20th percentile yields 2,000 calories per day and costs \$1,000 per day. If the minimum "need" is 2,250 calories per day, then the cost of a nutritionally adequate intake =  $\frac{2250}{2000} \times \$1.00 = \$1.125$  per person per day.

Line (3). Estimate, separately for rural and urban areas, the daily cost per person of a staple-based diet adequate to meet minimum calorie and protein needs. This diet should be based on the local cereal or other staple, supplemented, where necessary, with legumes or other protein source (e.g., for rice and cassava). This cost estimate should be based, where possible, on 1975 prices representative of the year as a whole, and upon the nutritional content of the form of the staple(s) normally used.

Line (4). Estimate the actual household expenditures (per capita) for non-food items by households at the 20th percentile, separately for rural and urban areas.

Line (5). Adjust this non-food expenditure upwards or downwards in line with the adjustment of food expenditure in (2).

For example: If unadjusted food expenditure	=	\$1.00	=	60%
" " non-food expenditure	=	$\frac{\$0.67}{\$1.67}$	=	40%
" adjusted food expenditure	=	$\$1.00 \times \frac{2250}{2000}$	=	\$1.125 = 60%
" " non-food expenditure	=	$\$0.67 \times 1.125$	=	$\frac{\$0.75}{\$1.875}$ = 40%

This maintains the ratio of food/non-food expenditure as at the 20th percentile. <sup>1/</sup>

Line (6). The "Absolute Poverty Level" of income is equal to the sum of adjusted food and non-food expenditures.

Line (7). Convert this "Absolute Poverty Level" to 1975 prices on a per person and per household basis, using an appropriate price index for the country.

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<sup>1/</sup> This method implicitly assumes that income elasticities for food and non-food expenditures are equal to unity. This is a heroic assumption but may be reasonable as long as the required adjustment is relatively small.



## II. Household Budget Data Not Available

Even if household budget or other data are not available to provide data on the typical food basket, it should still be possible to obtain an estimate of the cost of a staple-based diet. It is then recommended that this cost be used, together with data for a country of similar income level and characteristics, for which expenditure data is available, as a basis for a poverty level estimate.

For example: Expenditure data are available for Country A but not for Country B.

(1) For Country A, determine the ratio of the costs of the adjusted typical diet (Line 2 in Work Sheet B) to the staple diet (Line 3).

For:

<u>Country A</u>	<u>Urban</u>	<u>Rural</u>
Cost of Staple-Based Diet - 1975 prices	\$5.00/person/mth	\$3.50
Adjusted Typical Diet - 1975 prices	\$12.50	\$7.00
Typical Diet/Staple Diet	2.5	2.0
Adjusted Non-Food Cost - 1975 prices	\$10.00	\$4.00
Non-Food Expenditure/ Food Expenditure	= $\frac{10}{12.5} = .80$	$\frac{4}{7} = .57$

(2) These ratios can then be used as numeraires for the second country to estimate the cost of an adequate typical diet; and subsequently for non-food expenditure.

For:

<u>Country B</u>	<u>Urban</u>	<u>Rural</u>
Cost of Staple-Based Diet - 1975 prices	= \$ 6.00	= \$ 5.00
Estimate of Typical Food Cost	= \$ 6.00 x 2.5 = \$15.00	= \$ 5.00 x 2.0 = \$10.00
Estimate of Typical Non-Food Cost	= \$15.00 x .8 = \$12.00	= \$10.00 x .57 = \$5.70
Absolute Poverty Level	= \$27.00	= \$15.70

III. Data Reliability

Much of the data upon which this exercise will be based is recognized as being somewhat unreliable. In addition to the estimates themselves, judgment on their reliability would be useful in assessing the overall data position for this work and indicating future study needs,

It is recommended that the major items of data required in the exercise be assessed on a scale as follows:

1. Normal reliability.
2. Uncertain reliability.
3. Doubtful reliability.
4. Data based on "in-house" estimates--need field verification.



Nutritional Needs and Standards

Estimates have been prepared by FAO of "minimum" caloric requirement by age, sex and body weight (see Table 1). On this basis, general regional estimates of requirements have been made (see Table 2). Differences between regions are apparently mainly a result of differences in age distribution of population, body weight and environmental temperature. More accurate estimates could be made for individual countries, broken down by urban and rural areas, etc., if data were available on population characteristics.

Several things should be noted about these requirements:

(1) Some hold that they could theoretically be met by an all cereal diet (except for rice and millet). Arguing that wheat, maize and sorghum have approximately 350 calories per 100 grs, plus nine or more grams of protein, it is then held that this ratio provides adequate protein, as well as caloric, intake. Thus for Asia and the Far East, basic diets, according to this view, could be:

<u>Items</u>	<u>Amount (grams)</u>	<u>Calories</u>	<u>Proteins</u>
(a) Wheat	632	2,212	73.9
(b) Rice	475	1,710	31.8
Chick peas, or equiv. legume	140	<u>501</u>	<u>28.1</u>
		<u>2,211</u>	<u>59.9</u>
Need		2,210	59

(2) Others argue, more persuasively it would seem, that a "nutritionally adequate" diet is not so easily defined, except perhaps in caloric terms; that a diet of wheat or maize is not theoretically adequately balanced nutritionally; and that there are therefore fundamental deficiencies in an all cereal diet. For example, not all protein is utilizable and some amino acids in particular can have serious effects if not adequately supplied. The above levels are below the joint FAO/WHO recommendations of 1971. However, a diet with 8 percent of the total energy derived from protein may be considered safe.

(3) Acting in the opposite direction, but not so strongly, there is now some suggestion that these "minimum" standards referred to above are in fact generous, at least on the calorie side. Groups are known to be living at levels more than 10 percent below these standards without obvious indications of malnutrition.

(4) In many countries there are marked variations in the staple used. For example, in Indonesia the staple is rice for most of Java, but cassava around Yogyakarta and maize in parts of East Java; sago is the staple in Irian Barat. The non-grain staples, such as cassava, yams, sago and bananas, and variations in the protein source (e.g., in areas where fish are plentiful) greatly complicate the problem of attempting to create a "universal" methodology.

(5) Finally, whichever standard is used, there are the formidable problems of measurement. Food consumption tables must be used with care, as there are wide variations. For example, the high-yielding hybrid maize SR52, widely used in Zambia, has a protein content varying between 5.7 and 6.3 grams per 100 grams; whereas the traditional flint variety grown in the lower Shire Valley of Malawi has a protein content of 12 percent. Even these figures can be misleading. The traditional, home method of processing maize in Tanzania results in 60 percent extraction and a loss of nearly half the protein content of the grain; and if estimates are to be made from production data or expenditure data, realistic allowance must be made for refuse and wastage. Furthermore, there are the problems of determining appropriate prices, and the several additional problems of costing diets in the subsistence sector, where the family itself produces or gathers all or most of what the family eats.



Table 1: AVERAGE DAILY CALORIE REQUIREMENT

Category	Age	Body Weight (Kg)	Standard Calorie Requirement (units)
Men	16-19	63	3,070
	20-39	65	3,000
	40+	65	2,750
Women	18-19	55	2,300
	20-39	55	2,200
	40+	55	2,000
Children	4	13	1,350
	4-9	24	2,000
	10-15	44	2,550

Note: Standards are for moderately active adults; for very active adults add 17% to standard requirements. Also add or subtract 200 calories for each 5 Kg of body weight.

For greater detail see FAO Calorie Requirements: Report of the Second Committee on Calorie Requirements, Rome. Reprinted 1972.

Table 2: STANDARD CALORIE REQUIREMENTS BY MAJOR REGIONS

Region	Requirement/Day/Head of Population
Latin America	2,390
Asia and Far East	2,210
Near East	2,450
Africa	2,350

Table 3: Calorie and Protein Composition for Selected Foods  
(per 100 grams)

		<u>1/</u>		<u>2/</u>		<u>3/</u>	
		-- East Asia--		-- Africa--		--Latin America--	
		<u>Calories</u>	<u>Grams of Protein</u>	<u>Calories</u>	<u>Grams of Protein</u>	<u>Calories</u>	<u>Grams of Protein</u>
<u>Cereals and Grain Products</u>							
Maize	Whole-kernel, dried, white	349	9.1	357	9.4	361	9.4
	Meal, whole-ground yellow	355	9.2	353	9.3	363	7.9
Ragi millet	Whole grain	332	6.2	329	7.4	-	-
Rice	Milled, polished	366	6.4	363	7.0	364	7.2
	Parboiled	364	6.7	364	7.0	367	6.9
	Flour	366	6.4	-	-	364	7.2
	(Glutinous) milled	359	8.4	-	-	-	-
Sorghum	Whole-grain	342	10.0	347	11.1	342	8.8
Wheat	Soft, red winter Flour, white, nearly whole grain, 93% extraction	329	8.9	330	13.9	330	12.3
	White (flour)	341	8.9	351	10.5	365	12.0
	White (flour) 70% extraction	360	9.0	-	-	-	-
		364	8.6	364	10.3	365	11.8
<u>Starchy Roots and Tubers</u>							
Cassava	Bitter, common, raw: A.P./4, refuse, brown-skin, thin inner layer	98	0.7	149	1.2	148	0.8
	Flour or meal	363	1.1	344	1.6	320	1.7
	Sweet, raw, A.P., refuse, scrapings	101	0.7	-	-	132	1.0
Potato	White, A.P., refuse, scrapings	71	1.7	82	1.7	79	2.8
Sweet Potato	Raw, A.P., refuse, parings	95	0.9	121	1.6	116	1.3
Yam	Goa, raw, A.P., refuse, skins	81	1.3	118	3.0	100	2.0
	Luzon, raw, A.P., refuse, skins	75	1.9	-	-	-	-



Table 3 (Continued)

		-- East Asia--		--Africa--		--Latin America--	
		Calories	Grams of Protein	Calories	Grams of Protein	Calories	Grams of Protein

Grain Legumes

Broad bean	Horse bean, whole seeds, dried, E.P.	328	25.0	344	26.2	334	24.0
Chickpea	Bengal gram, whole seeds, dried, E.P.	362	19.4	357	19.6	364	18.2
Lentil	dhal, splitpea, whole seeds, dried E.P.	340	20.2	345	24.9	340	23.7
Peanut	Groundnut, raw, E.P.	303	15.0	549	23.2	543	25.5
	A.P., refuse, shell	197	9.8	-	-	-	-
Peas	Garden or field, E.P. whole seed, dried	333	22.2	339	22.3	343	22.5
Soybean	Whole, mature seeds, dried, E.P., yellow	400	35.1	405	33.7	398	33.4

Nuts and Seeds

Coconut	Mature kernel, raw, A.P., refuse, hard shells	150	1.5	388	3.6	296	3.5
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Vegetables

Cabbage	Common, white, raw, A.P., refuse, outer leaves, core	19	1.4	26	1.7	28	1.7
Eggplant	Garden, brinjal, aubergine, raw, purple and white varieties, A.P., calyx only	25	1.5	32	1.0	27	1.0
Plantain	Rippleseed, leaves, raw, A.P., stems and rootlets	49	2.0	-	-	-	-
Turnip	Roots, raw, A.P., without tops, refuse, parings	17	0.8	21	1.0	27	0.8

		-- East Asia --		-- Africa --		-- Latin America --	
		Calories	Grams of Protein	Calories	Grams of Protein	Calories	Grams of Protein
<u>Fruits</u>							
Banana	Common, fruit, raw, A.P., refuse, skins	63	0.8	88	1.5	97	1.2
Mango	Common, indian mango, raw, A.P., refuse, skins and seeds	44	0.4	60	0.6	59	0.5
<u>Sugars and Syrups</u>							
Molasses	From sugarcane, medium	232	-	-	-	276	0
Sugar	Crude, brown	389	1.1	344	-	356	0.4
	Granulated	351	1.7	-	-	384	0
<u>Meat and Poultry</u>							
Beef	Carcass fresh, A.P., refuse, bones and trimmings	218	13.8	237	18.2	244	18.7
Chicken	Young birds: raw, A.P., dressed, refuse, head, feet, inedible viscera, and bones	122	12.3	146	20.5	170	18.2
	Mature birds: A.P., live, refuse, blood, feathers, head, feet, inedible viscera and bones	175	10.4	-	-	246	18.1
	A.P., dressed, refuse, head, feet, inedible viscera and bones	193	11.5	-	-	-	-
Duck	Domesticated: meat, raw, A.P., dressed, refuse, bones, head, inedible viscera	209	10.2	287	18.6	326	16.0
Goat	Medium fat, A.P., bones and trimmings	289	12.3	-	-	165	18.7
Pork	Carcass, fresh, A.P., bones, refuse and some fat trimmed	406	10.5	418	12.4	376	12.4



Table 3 (Continued)

-- East Asia -- -- -Africa- -- -- --Latin America--  
Calories Grams of Protein Calories Grams of Protein Calories Grams of Protein

Eggs

Eggs	Duck, raw, A.P., refuse, shell	166	11.6	-	-	195	13.0
	Hen, raw, whole, A.P., refuse, shell	145	11.5	140	11.8	148	11.3

Fish

Fish	Unclassified, raw, high fat	166	15.9	103	18.8	-	-
	Raw, low fat	75	16.6	-	-	99	19.6
	Salted, dried	193	40.2	269	42.3	223	46.0

M. . and Milk Products

Milk	Cow, fluid 3.5% fat	63	3.1	79	3.8	65	3.3
	Cow, fluid 3% fat	61	3.6	39	3.5	61	3.5
	Cow, canned, sweetened, whole	325	7.9	-	-	321	8.1
Yoghurt	Made from partially skimmed milk	90	3.6	85	4.2	-	-

Fats and Oils

Butter	(Imported from USA) Unsalted	729	0.9	875 (buffalo milk)	0	743	1.0
M. garine	Fortified (Japan)	723	0.5	-	-	720	0.6
Oils	Pure, cooking	884	0	875	0	884	0
	Coconut oil	883	tr.	-	-	-	-
	Sesame oil	881	0.2	-	-	-	-

1/ Food Composition Table for Use in East Asia, Woot-Tsuen Wu Leung and others (HEW-FAO) Bethesda: 1972.

2/ Food Composition Table for use in Africa, Woot-Tsuen Wu Leung and Felix Busson, Claude Jardin. (HEW-FAO) Bethesda: 1968.

3/ Food Composition Table for Use in Latin America, Woot-Tsuen Wu Leung and Marina Flores (INCAP-ICNND) National Institutes of Health, Bethesda: 1961.

4/ A.P. = as purchased. E.P. = eating portion.

An Example Based on Data from Pakistan

1. Actual Expenditures of Low-Income Groups

Urban

The household income group PRs 150-199 per month represents the 13-28th percentiles (see Table 1), and was taken as typical of the low-income groups in urban areas. On the basis of the reported per capita monthly consumption of food items and the FAO food composition data, it is estimated that the purchased food basket for this group provided 1,744 calories per day. The percentage distribution of expenditure and calorie intake by item is shown in Table 2.

Rural

For the 20th percentile group in rural areas, i.e., PRs 100-149 according to Table 1, average daily calorie intake was 1,815.

2. Adjusted Food Expenditures

Actual expenditure on food was PRs 22.4 per person per month. This provided 1,744 calories per day. Therefore, assuming the same composition, a diet providing 2,210 calories per day would cost PRs 28.4 per person.

Rural

Monthly expenditure per person was PRs 19.5. 2,210 calories per day would cost PRs 23.57 per person.

3. Staple-based Diet

Dietary Need

The estimated daily calorie requirement per head of 2,210 could be met by:

- (1) 632 grams wheat
- or (2) 450 grams rice and  
150 grams lentils.



Cost of Cereals Requirement in Major Cities, 1971/72

	Food	
	Wheat <sup>/1</sup> PRs/day/hd	Rice
Karachi	.399	.517
Hyderabad	.378	.568
Lahore	.365	.561
Rawalpindi	.406	n.a.
Approx.	.39	.56
Cost per person per month	11.9	17.0
Weighted Average <sup>/2</sup>	12.5	

<sup>/1</sup> This assumes an extraction percentage in the range 80-93. If lower rates are expected the calorific value per kilogram should be correspondingly reduced.

<sup>/2</sup> Since approximately 90 percent of expenditure on cereals is for wheat, a weighted average of the wheat and rice dietary costs will provide a reasonable estimate of basic food cost.

Cost of Cereal Requirement in Rural Areas

Direct price data for small towns or rural areas were not available for this exercise. From data in the 1971/72 Household Budget Survey on expenditure and consumption by item the apparent cost per unit could be calculated. This indicated that the average of wheat and rice prices weighted as above, was 11.5 percent lower in rural than urban areas. This differential may be low and is used here purely for illustrative purposes.

On this basis the cost of daily basic calorie requirement per person in rural areas was PRs 11.1 per month.

4. Unadjusted Non-Food Expenditure

From the 1971-72 household budget survey, monthly non-food expenditures of the income group containing the 20th percentile were:

Urban: PRs 17.0 per person.

Rural: PRs 12.0 per person.

5. Adjusted Non-Food Expenditure

Adjusting these proportionately with the food expenditures:

$$\text{Urban} = \text{PRs } 17.0 \times \frac{2210}{1744} = \text{PRs } 21.5$$

$$\text{Rural} = \text{PRs } 12.0 \times \frac{2210}{1815} = \text{PRs } 14.6$$

6. Absolute Poverty Line

Urban:      Food needs      =      PRs 28.4 per person/month  
                 Non-food needs      =      PRs 21.5 per person/month  
                 Total needs      =      PRs 49.9 per person/month  
Average household size at 20th percentile = 4.4  
                 Total needs      =      PRs 219.9 per household/month

Rural:      Food needs      =      PRs 23.6 per person/month  
                 Non-food needs      =      PRs 14.6 per person/month  
                 Total needs      =      PRs 38.2 per person/month  
Average household size at 20th percentile = 4.3  
                 Total needs      =      PRs 164.3 per household/month



**Table 1: Monthly per capita Food Expenditure by Income Groups  
below PRs 300 per month**

Income Group (Rupees per. Month)	Urban Areas		Rural Areas	
	(Percent of Households)	(PRs/cap/month food expenditure)	(Percent of Households)	(PRs/cap/month food expenditure)
< 50	0.2	20.9	0.4	17.1
50-99	2.7	19.1	8.3	18.7
100-149	10.0	20.5	19.8	19.4
150-199	15.5	22.8	23.9	20.9
200-249	16.5	24.6	16.6	22.9
250-299	12.6	25.3	11.0	24.0

**Table 2: Dietary Composition and Food Expenditure.  
Urban and Rural Low Income Households**

Item	Urban		Rural	
	% of Expenditure	% of Calories	% of Expenditure	% of Calories
Wheat	27.8	66.2	39.9	68.7
Rice	3.9	6.4	5.3	8.3
Pulses	3.4	1.8	4.9	2.1
Milk and Products	16.1	3.8	25.3	3.6
Edible Oil	9.1	11.5	6.0	5.5
Meat, Fish, Poultry	6.5	2.5	5.6	3.6
Vegetables	8.6	.5	8.9	1.6
Spices	3.1	-	3.7	-
Gur, Sugar	6.1	6.2	8.0	7.2
Tobacco	4.6	-	4.2	-
Tea	2.6	-	2.4	-
Miscellaneous	8.0	-	2.5	-
Total Calories		1,744		1,815

Urban and Rural Poverty Levels. Work Sheet A

1. Country PAKISTAN
2. Year for which consumption data available. 1971/72
3. Income level (a) Total Personal Income- 1974/75 =PRs 1420 per capita  
(see Notes) (use local currency)
- (b) Absolute Poverty Line 1974/75  
(from Work Sheet B)
  - (i) Per capita per year. Rural = PRs 825  
Urban = 1078
  - (ii) Per household per year. Rural = 2878  
Urban = 4745
4. Average household size Rural 5.8  
Urban 5.9
5. Population - Country Total in 1975 = 69.2 million
 

Rural Population	= 49.0 mil. = 70.8 %
Urban Population	= 20.2 mil. = 29.2 %
6. Population in or near Poverty:

	<u>Urban</u>		<u>Rural</u>	
	<u>Percent</u>	<u>Number</u> (millions)	<u>Percent</u>	<u>Number</u> (millions)
(a) Population below absolute poverty line	30.6	6.2	30.8	15.1
(b) Sensitivity Analysis - Population below:				
(i) absolute poverty level x 0.75	14.5	2.9	15.0	7.4
(ii) " " " x 1.25	47.0	9.5	49.3	24.2
(iii) " " " x 1.50	59.3	12.0	63.1	30.9
(iv) " " " x 2.00	76.4	15.4	81.0	39.7



URBAN AND RURAL POVERTY LEVELS

Work Sheet B

Date for which basic data obtained.

	<u>Urban</u>		<u>Rural</u>	
	Cost/expenditure in local currency			
	PRs		PRs	
(1) Food Expenditure of 20th Percentile (per person per month)	22.4		19.5	
(2) Adjusted Expenditure to meet nutritional requirements.	28.4		23.6	
(3) Cost of nutritionally adequate cereal- based diet (per person/month)	12.5		11.1	
(4) Non-Food Expenditures of 20th Percen- tile (per person/month)	17.0		12.0	
(5) Adjusted Non-Food Expenditure.	21.5		14.6	
(6) Absolute Poverty Line. (2) + (5) (per person/month)	49.9		38.2	
(7) Absolute Poverty Line - 1974/75 prices				
(i) Per person per month	89.8		68.8	
(ii) Per person per year	1078.2		825.1	
(iii) Per household per month	395.4		295.9	
(iv) Per household per year	4744.9		2878.5	

Data Reliability Rank on scale from 1 to 4 (see notes)

Personal Income	2
Income Distribution	2
Food Expenditure	2
Food Prices	3
Non-Food Expenditure	2