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Poverty in the Peri-Urban Interface

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Introduction

The peri-urban interface (PUI) is a dynamic zone, both spatially and structurally. Spatially it is the transition zone between fully urbanised land in cities and areas in predominantly agricultural use. It is characterised by mixed land uses and indeterminate inner and outer boundaries, and typically is split between a number of administrative areas. The land area which can be considered peri-urban shifts over time as cities expand. It is also a zone of rapid economic and social change, characterised by pressures on natural resources, changing labour market opportunities and constraints, and changing patterns of land use. Intense rural-urban interactions give rise to numerous flows of capital /investment, commodities, natural resources, people, labour, knowledge, energy, water, waste and pollution.

Examining the extent, characteristics and causes of poverty in such a fluid and dynamic situation poses definitional and methodological problems (Box 1). These, the lack of appropriate data from recent poverty assessments, and the failure of studies of peri-urban areas to examine poverty in any depth mean that it is not possible to draw clear conclusions on the incidence of and trends in poverty in these areas. The studies available do reveal the main dynamics of change.

Changes to Farming Systems and Land Use

Agricultural patterns in the peri-urban zone are a product of both farming systems related to the natural resource endowment of the area and the proximity of a growing urban market for food and non-food products. Typically, there is a shift from cultivation of staple crops to more intensive cropping and livestock systems producing fresh

Box 1: Poverty in the PUI: Definitional Issues

Most commonly, estimates of the incidence, depth and severity of poverty are based on a conceptualisation of poverty as low household income. There are a number of general methodological difficulties in income/expenditure based estimates of poverty. In particular, poverty line definitions may result in a categorisation which does not coincide with the perceptions of the poor themselves, with respect to either who is considered poor or how their poverty and deprivation is understood. Evidence from a number of Participatory Poverty Assessments shows that, for poor people, the critical dimensions of poverty are:

- food insufficiency and insecurity;
- unsatisfied basic needs, especially for clothing, water and sanitation;
- precarious livelihoods, leading to shortages of money to purchase necessities, including health care and education;
- lack of assets to provide a basis for secure livelihoods and a hedge against insecurity;
- powerlessness and lack of self respect;
- isolation;
- vulnerability to stress and shocks.

The PUI is constituted of a variety of processes and interactions rather than a defined geographical area. It is unlikely to coincide with administrative boundaries and will, in any case, shift spatially as urban growth occurs. Much analysis provides a snapshot of poverty at a point in time, rather than examining the processes of impoverishment or improved wellbeing which affect households, social groups or areas over time. With one exception, national data sets have not been disaggregated to reveal the incidence of poverty in peri-urban areas. Estimates, such as those made in the World Bank funded poverty assessments, may be disaggregated by province or district, or into urban and rural areas, using administrative boundaries. This results in issues for the interpretation of urban and rural differences, including:

- differing definitions of 'urban' between countries;
- definition of administrative boundaries around urban areas is an arbitrary process: practices vary between and even within countries and may include within an urban area large areas of agricultural land, or lag behind urban growth, excluding parts of the built up area;
- cost of basic household needs, especially for shelter, water and transport to work is higher in urban areas;
- wealthy tend to live disproportionately in cities, so inequality is greater in urban than in rural areas in most countries; this may not be associated with greater depth of poverty, but there is evidence of a larger poverty gap in urban than rural areas in some countries.

produce for urban markets, especially horticulture, dairying and poultry. Sometimes farmers are long term residents of villages only affected recently by urban growth. In other cases, they have moved from or still live in the urban areas, cultivating to supplement or replace incomes hit by economic recession. The opportunities and farmers' ability to take advantage of them depend on prices for farm produce; marketing systems; access to roads and transportation; access to capital, knowledge, technology and other inputs; land tenure and markets; and the availability of labour, as well as the natural resource endowment of an area.

Some farmers have sufficient land and other resources, especially water, to take advantage of the opportunities for more intensive production (Box 2). Those who cannot take advantage of the opportunities presented by urban markets include both farmers who are unable to access the resources and take the risks involved in more intensive and larger scale production and farmers whose plots are squeezed by inheritance or land market processes. They include the already land poor, those who have insufficient capital to purchase land and/or intensify production, and those who are excluded from credit and extension. Often, women find it more difficult than men to access these resources. Some small farmers are marginalised and impoverished, others maintain subsistence agriculture alongside urban wage and self employment opportunities as part of a diversification strategy.

Land Markets and Development

Peri-urban land markets are characterised by increasing competitive pressure on land: it may be acquired by the state for public purposes or subdivision; it may be sold and then hoarded or subdivided (often illegally) for private development; and it may be settled by low income residents, as squatters or illegal subdividers. In some parts of the world, the poor are not landowners and so the impact on them is indirect rather than direct: in rural areas through the reduced demand for agricultural labour, and in urban areas through, for example, the supply of rental dwellings. Elsewhere, the poor own (or have access to) land, although rarely sufficient to meet their own food needs, let alone produce a surplus. Their use rights may be threatened by the market activities of those with the right to dispose of land and by commercialisation of property markets. They may be unable to demand adequate compensation for land acquired by government and their access to common pool resources may be adversely affected.

The residents of villages within the zone of peri-urban influence, mostly farmers or farm labourers, are presented with alternative opportunities related to the expanding urban economy. These may arise from agricultural intensification; the demand for other raw materials, such as building materials or fuel, for urban use; wage employment in urban enterprises, or opportunities for self employment.

Box 2: Commercialisation and Marginalisation: Land and Farming in the PUI

In the mid-1990s, 44% of Dar es Salaam's milk supply came from peri-urban commercial producers and 16% from urban producers (Sumberg, 1997). Around Jos in northern Nigeria, about 2,000 small scale commercial farmers produce high value crops for Jos and the large coastal cities on holdings averaging 2 ha and using irrigation water from streams and abandoned tin pits (Van den Berg et al, 1998). Around Kano, economic crisis and liberalisation led to the development of large scale irrigated wheat production in the river bottoms and upland millet and beans by absentee farmers, many of them (former) civil servants or political office holders (Iliya and Swindell, 1997).

In Kwazulu, within the Durban metropolitan region, 25% of households on the urban fringe farm. However, the poorest are less likely to be involved than the slightly less poor, and many have only insecure tenure, particularly squatters. Demand for land for housing competes with agricultural use (May and Rogerson, 1995). Around San Carlos de Bariloche in Argentina, agriculture and cattle rearing were initially replaced by horticulture and dairying, but poor agricultural yields and increased land values led to sales and subdivision, resulting in the displacement of small farmers by residential development (Abalaron, 1995). In the Kumasi PUI the threat that land may be sold results in shorter rental agreements for farmland nearer the city, and discourages farmers from planting tree crops. More women remain as peri-urban farmers than men, mainly growing food crops in low input bush-fallow systems, but have little say in the disposal of land (NRI and UST, 1997).

Changing Patterns of Labour Force Participation

Agricultural intensification may give rise to increased demand for wage labour, perhaps leading to increased wages, benefiting those of the poor who are agricultural workers, and enabling poor farmers to compensate for reduced farm size or declining yields. In other cases, the availability of alternative opportunities may result in a farm labour shortage, leading either to mechanisation or to the in-movement of migrant labour. However wages, especially for casual farm labour, may remain low, and this may be the labour market of last resort for poor residents, especially women, who find it harder to travel into the city for work (Box 3).

Better-off farm households tend to have more diversified livelihoods than poor households, and to earn more from their off-farm and non-farm activities (Box 3). Opportunities differ not just between households but between villages, even within the extended metropolitan regions of SE Asia, which are characterised by household strategies based on spatially extended commuting patterns (including manufacturing wage employment, especially for young women), circular migration and diversification of family labour. The result is socio-economic differentiation both within and between villages, and also between those parts of the peri-urban area with easy access to urban opportunities and those which are more distant.

Box 3: Labour and Livelihoods in the PUI

Around Gusan and Sokoto in northern Nigeria socio-economic differentiation is occurring between wealthy farm households with heads in wage employment or business or who receive remittances from absent sons, and poor farm households, who rely on sporadic supplementary employment in seasonal, casual or poorly paid permanent occupations and do not receive remittances from their non-resident sons (Iliya and Swindell, 1997).

Better off farm households in the rural districts near Mombasa on the Kenyan coast have more diversified livelihood strategies than poor households. Of all the off-farm income, 45% is urban and 55% rural. Off-farm employment is a less important source of income in poor households, who depend more on food production (60%) and gain a third of their off-farm income from casual labour on nearby farms. Workers from these families earn less than half their counterparts in middle income and a fifth of those in high income farm households, for similar activities (Foeken, 1997).

Social Change

Peri-urban areas are characterised by rapid social change, in which rural settlements adjust economically and socially to urban influences, both opportunities and threats, and in which existing populations are added to by in-migrants from either the inner city or other parts of the country. The results may be beneficial to existing villages, or divisive, depending on social structures and the speed, intensity and nature of change. Research has concentrated on the establishment and consolidation of urban fringe residential areas (especially low income settlements) and there are few studies of processes of social change in peri-urban villages.

Infrastructure Needs

Peri-urban areas are called on to supply water, building materials and sometimes energy (especially woodfuel) to the nearby city. In the competition for these resources between local communities and the city, poor people may lose out. For example, there may be competition for water between the demand for urban drinking water, industrial demand and the needs of peri-urban settlements for domestic and agricultural supplies.

In addition to satisfying the demand from urban areas, peri-urban areas themselves need improved infrastructure to take advantage of economic opportunities and cope with increasing population densities. Closer to the city, urban sprawl occurs faster than the capacity of utility and infrastructure providers to keep pace. Exacerbated by the lack of planning capacity and failure to regulate development, a fragmented pattern of illegal subdivision for both higher and lower income groups occurs, first along existing main roads and then in the interstices between them. The provision of water and other services to such areas depends on the political system and the political clout of their residents, their location in relation to city-wide supply systems and the capacity of the latter to extend provision, as well as income levels.

The standards of infrastructure available to poor households are inferior and their vulnerability to environmental hazards such as flooding greater (Box 4).

Box 4: Susceptibility to Risk

On the rural fringe of Accra, 50% of households obtain water from vendors and 32% from streams and wells, with only 18% having access to a piped supply, compared to the majority in the rest of the city. 92% use pit latrines. The prevalence of diarrhoea is much higher in the rural fringe and the high density indigenous housing areas within the city than in high density low class or middle and high class housing areas (Songsore and McGranahan, 1993).

Households most vulnerable to floods in the mainly agricultural village of Le Repos, 12 km from Georgetown, Guyana, are the poor living in overcrowded dwellings with poor infrastructure; petty agriculturalists relying on backyard livestock rearing and vegetable and fruit production for their livelihoods; renters and squatters; female headed households; owners, whose capital investment is vulnerable to damage; and children, who suffer most from the health impacts and are prevented from attending school (Pelling, 1998).

There may be higher health risk factors in peri-urban areas than in either urban or rural areas and there are certainly higher risks, resulting in higher mortality and morbidity, amongst low than high income households, exacerbated by the lag of social infrastructure provision (especially local health facilities) behind need as peri-urban populations increase.

Waste and Pollution

Cities depend on their surrounding regions to act as sinks and disposal sites for their waste, particularly solid and liquid waste. These areas may also be affected by urban air pollution. Peri-urban areas both provide official sites for refuse tips and sewage treatment, and are unplanned repositories of polluted water and illegally dumped solid waste. Pollution of the air, water and soil may negatively affect agricultural productivity and compromise the safety of fresh and processed produce.

Differentiation, Impoverishment or Well-Being?

The incidence of poverty is generally less in urban than rural areas. Although in the long term, the geographical location of the PUI will shift as a city expands, the proportion of households below the absolute poverty line is likely to be intermediate between that in urban and rural areas for the country concerned, decreasing in the short term in the part of the peri-urban zone most affected by the urbanisation process. The poor in the PUI are likely to share the general characteristics of poor urban and rural households: poverty is associated with

large household size, high dependency ratios and low educational levels. Particularly vulnerable groups include the elderly without support, the disabled, the chronically sick and some categories of female headed households.

The discussion above shows that farming systems are subject to contradictory processes:

- opportunities for intensification to meet urban demand, especially for fresh produce;
- threats from the subdivision and sale of land for urban development (usually unregulated);
- adverse impact on the remaining farm businesses of the sporadic pattern of urban development, uncertainty over the future, increased difficulties in accessing external services, disruption to drainage caused by urban development and infrastructure construction, and the effects of air and water pollution;
- if the urban economy is buoyant, agriculture may also find it difficult to compete for labour.

In the early stages of urban influence or the outer parts of the PUI, the opportunities for farm enterprises are likely to exceed the threats. Those who benefit tend to be the larger farmers, and those least able to take advantage of the opportunities the smaller farmers who lack capital and surplus land, leading to increased differentiation.

In the later stages of urban influence or the outskirts of the built up area, the threats to farm enterprises outweigh the opportunities, leading to increasing abandonment of farming. Those who benefit from this process are those who can either sell land to speculators or developers or who have the capacity to develop it themselves. Those who lose are households with little or no land, which are dependent on wage or casual labour on other farms for all or part of their incomes and which are unable to take advantage of alternative economic opportunities in the urban labour market, because they and their members lack labour, power, skills, contacts, capital, and/or freedom of movement. Those who have insecure rights to land, or who have little to sell, and who are excluded from urban labour market opportunities may be impoverished and, in any case, differentiation is likely to increase. Women are likely to be disproportionately affected.

Farm land may be converted from subsistence food production to either commercial production for the urban market or urban development. If the food producers are unable to access alternative income generating activities, households will suffer from increased food insecurity, which is likely to be associated with increased malnutrition and poorer health status. Those not engaged in cultivation and related activities on their own land will become more reliant on casual work or the less lucrative informal sector trading and service occupations, and unemployment rates may increase.

Differentiation in the incidence and severity of poverty will occur between villages with poor access to good agricultural land, roads, electricity and marketing channels and those in which farmers are able to intensify agricultural production, diversify economic activities and market their products and labour in the city.

Environmental changes (pollution, intensified use of agro-chemicals, deteriorating environmental sanitation, etc) may result in higher health risk factors than in either urban or rural areas, resulting in higher rates of mortality and morbidity. As poor health is both a result of poverty and exacerbates it, if increased health problems do occur, they will exacerbate the problems of chronically poor and newly impoverished households.

Past research does not tell us whether the balance between opportunities and stresses in areas of intense urban influence and rapid physical and socioeconomic change is positive or negative for different groups of peri-urban residents: indigenous and in-migrant households, poor and non-poor households, and communities in different locations within the PUI. The determinants of the different positions and trajectories of households (or villages) need to be identified, seeking explanations in the asset portfolios available to them and the way in which they manage these assets in a situation of rapid change. Better understanding of livelihoods will, firstly, reveal areas where the most appropriate intervention is to stop activities which hinder households' efforts to develop sustainable livelihoods. It will also demonstrate the scope for support at the level of both national sectoral policies and local action.

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