

Agriculture Remains a Vital Component in Peri-Urban Livelihood Strategies

Peri-urban agriculture remains an important livelihood activity. It offers opportunities for the production of high value, perishable products for urban consumers along with environmental benefits, including management of urban waste as an agricultural resource. However, security and return on labour input varies widely when analysed by gender and poverty level.

Activities that enhance or rehabilitate natural resources give the most positive economic outcomes.

Agriculture remains the most significant natural resource-based livelihood activity in both Hubli-Dharwad and Kumasi. Although declining in absolute terms, land-based income sources in Hubli-Dharwad continued to occupy a central role in livelihood strategies throughout the ten years of research, while crop farming remained the most frequently cited occupation in village assessments in Kumasi over the same period. In the East Kolkata Wetlands, livelihoods deriving from urban waste-based fish-rearing, rice and vegetable production support the livelihoods of around 50,000 people.

Agriculture Critically Important for the Poorest and Women. Agricultural activity is complex and patterns differ between social groups. There is an understandably close relationship between activity patterns and systems of land access and tenure, both of which are subject to intense pressure as a result of urban growth.

Notwithstanding the continued importance of agriculture, the research identifies long-term growth in off-farm activity, across all social groups in both Hubli-Dharwad and Kumasi. Clearly, the relationship between agriculture and off-farm income generation is not straightforward.

Despite an overall decline in the agricultural livelihoods as a percentage of all livelihoods, crop farming remains an important component for the majority of people living in all three PUIs, and especially so for the poorest. It apparently serves as both a safety net and a bridging strategy for those with access to land, supporting the transition to alternative productive activities. Furthermore, farming provides employment for the landless.

There is evidence that the existence within the peri-urban interface of alternative labour options for men has tended to ensure that demand for cheap agricultural labour exceeds supply. While this supply deficit has created some upward pressure on wages, it has also opened the way for the entry of women into a market from which they were previously excluded. In financial terms, this has meant that wages have remained low, with women typically subject to significantly lower rates than men. However, the availability of such work to women with limited access to employment opportunities is socially highly significant. Work in agriculture (both wage labour and self-employment) is often possible close to home and in combination with other activities, making these viable options for women with domestic responsibilities.

Access to Land Differentiates Agricultural Experience by Gender and Poverty. Natural resource-based income generators, and most specifically, farming, remain a significant feature of male livelihoods and those of the non-poor. It seems clear that this is due, at least in part, to the greater access amongst those overlapping groups to land. A further contributing factor must lie in the growth of more intensive and lucrative forms of farm-based production amongst men and the non-poor. However, the data indicates that the poor and women remain most dependent on natural resource-based activities against a background of decreasing natural resource availability. This is likely to be due to the greater importance of agricultural labour and traditional farming to the poorest women, as well as heavier reliance on diminishing common pool resources (e.g. wood fuel, water and common grazing land). If trading in agricultural products and value added food is included as a natural resource-based activity, the importance to women is further increased.

Urban Linked Agriculture. Food production systems that take advantage of urban markets feature significantly in the livelihood strategies of many people living in the PUI. Agriculture is typically becoming more intensive, with increasing emphasis on production of high value and perishable products such as vegetables, milk, eggs and fish, each with a ready urban market. However, the economic benefits of this trend are not evenly shared. There is strong evidence that a dichotomy has emerged between richer and more entrepreneurial peri-urban farmers, able to take

*This is a message from new research into lives affected by the meeting of rural and urban, of country and town: the meeting called the **peri-urban interface**. It is a product of ten years of study, focusing on livelihoods, systems of production and poverty in Kumasi (Ghana), Hubli-Dharwad and Kolkata (both India). It was funded by the Natural Resources Systems Programme of the Department for International Development of the UK Government (DFID), for the benefit of developing countries. The view expressed are not necessarily those of DFID.*

The source of this brief is “A Synthesis of Peri-Urban Research of Kumasi, Hubli-Dharwad and Kolkata PUIs” at <http://www.ucl.ac.uk/dpu/pui/research/previous/synthesis/index.html>, which is also Annex B of the Final Technical Report of NRSP Project R8491

Details of individual NRSP projects can be found in the Project Database at <http://www.nrsp.org.uk>

advantage of the opportunities offered by the proximity of urban markets, and asset poor farmers who struggle even to provide their own food.

For the poorest groups and women, livestock rearing is important because it does not require land ownership. The use of zero grazing techniques and natural or agro forestry fodder sources are useful in further reducing reliance on secure access to land. In Hubli-Dharwad, for example, dairy farming affords an excellent income generating opportunity for women, while small animal ownership was most diverse among the poorest groups in Kumasi. However, meat and milk production was not a well developed livelihood activity for the peri-urban poor in Kumasi, offering a possible direction for development in the future.

In Kumasi, the research suggests that men are moving from tree crops (cocoa and oil palm) to vegetable production. This appears to be a result of a combination of factors: the relatively high prices available for vegetables in urban areas, coupled with increasing competition for peri-urban land, thus favouring the smaller areas and cultivation cycles required for vegetable cultivation.

For women, however, the experience appears to be markedly different. They are increasingly concentrated in less productive agricultural sectors, producing low risk, low profit staple foods such as maize, cassava, plantain, yam and coco yam, or else in subsistence cropping with some cultivation of specific vegetables.

In all cases, choice of crop depends on length of production cycle, proximity to the market, market price and demand and availability of land. A better variety of seeds is often available in urban markets and is also likely to affect peri-urban cultivar choices.

Urban wastes offer a specialist resource for agricultural production, providing a potentially cost-effective system of soil improvement and irrigation, with a secondary function in reducing urban pollution. Urban wastes in the form of human sewage are used for fish farming in the East Kolkata Wetlands, as well as for vegetable growing in both Kolkata and Hubli-Dharwad. Intensive poultry waste is available for soil improvement in Kumasi, while industrial waste in the form of sawdust is also utilised. In the East Kolkata Wetlands 'economic ecosystem', the waste water-supported agricultural, horticultural and fishpond

systems are central to livelihoods, supporting an estimated 50,000 jobs. A diverse range of ancillary occupations have also been generated, including security service provision, harvesting work, packers, porters, auctioneers, traders, retailers, fish seed raisers, boat builders, net makers and wastewater systems maintenance workers. However, the potential for sustainable urban waste-based agricultural systems is threatened by a lack of understanding at all levels of government.

Natural Resource-Based Activities Offer Best Returns. The research shows that developing a diverse range of crops is a livelihood strategy that helps people to manage livelihood shocks. Furthermore, actions that enhance or rehabilitate natural resources give more positive returns than any other livelihood activities. Not only do they protect natural resources, they also improve food security, and increase livelihood diversity, when compared with purely extractive use of the natural resource.

Where interventions introduced improved agricultural techniques and livestock husbandry, improved soil fertility and water management, encouraged cropping diversity and promoted tree planting, fewer people moved off the land or sold it for materials extraction, while incomes and food security improved.

The research also demonstrated that the number of food insecure households fell in areas where natural resource improvement was the focus of intervention, but remained the same where this focus was lacking. The numbers of small farmers leaving the land or selling topsoil for construction also fell in areas where natural resource management training was carried out.

Activities that are not Natural Resource Based.

The trend away from natural resource-based activity becomes more pronounced in locations in closer proximity to the city. This change is most significant amongst men, with women and poorer people remaining more dependent on natural resource-based livelihoods. Women's access to off-farm and non-farm opportunities tends to be significantly lower than is the case for men, partly as a result of cultural constraints. Where people are not engaged in farming or trading, it is casual, unskilled labouring in construction, and factories that forms the basis of cash income generating activity in the PUI.

*This is a message from new research into lives affected by the meeting of rural and urban, of country and town: the meeting called the **peri-urban interface**. It is a product of ten years of study, focusing on livelihoods, systems of production and poverty in Kumasi (Ghana), Hubli-Dharwad and Kolkata (both India). It was funded by the Natural Resources Systems Programme of the Department for International Development of the UK Government (DFID), for the benefit of developing countries. The view expressed are not necessarily those of DFID.*

The source of this brief is "A Synthesis of Peri-Urban Research of Kumasi, Hubli-Dharwad and Kolkata PUIs" at <http://www.ucl.ac.uk/dpu/pui/research/previous/synthesis/index.html>, which is also Annex B of the Final Technical Report of NRSP Project R8491

Details of individual NRSP projects can be found in the Project Database at <http://www.nrsp.org.uk>

Policy Implications

Policy makers cannot afford to ignore the potential for agriculture to benefit people in a rural to urban transition, even where land is being converted to urban use. However, successful forms of peri-urban agricultural support will differ in some respects from those normally provided in rural areas.

It is wrong to assume that people move seamlessly from farm to non-farm livelihoods as part of the urbanisation process, and that natural resources consequently have no role to play as peri-urban people enter the urban economy. Ongoing positive management of natural resources remains essential during the move from the farm to the city.



DFID Natural Resources Systems Programme



*This is a message from new research into lives affected by the meeting of rural and urban, of country and town: the meeting called the **peri-urban interface**. It is a product of ten years of study, focusing on livelihoods, systems of production and poverty in Kumasi (Ghana), Hubli-Dharwad and Kolkata (both India). It was funded by the Natural Resources Systems Programme of the Department for International Development of the UK Government (DFID), for the benefit of developing countries. The view expressed are not necessarily those of DFID.*

The source of this brief is “A Synthesis of Peri-Urban Research of Kumasi, Hubli-Dharwad and Kolkata PUIs” at <http://www.ucl.ac.uk/dpu/pui/research/previous/synthesis/index.html>, which is also Annex B of the Final Technical Report of NRSP Project R8491

Details of individual NRSP projects can be found in the Project Database at <http://www.nrsp.org.uk>