Linking livelihood diversification to natural resources in a poverty reduction context
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Livelihood diversification is generally a good thing for rural poverty reduction. It helps to lessen the vulnerability of the poor to food insecurity and livelihood collapse; provides the basis for building assets that permit individuals and households to construct their own exit routes out of poverty; and improves the quality and sustainability of natural resources that constitute key assets in rural livelihoods. Both land tenure and CBNRM regimes can take forms that impede rather than facilitate diversification; as also can disabling public sector livelihood contexts. New research is indicated at the intersection of land tenure institutions, diversification (including migration and remittances), gender-differentiated processes and outcomes, and decentralised local government.

Livelihood Diversification
Livelihood diversification challenges conventional wisdoms about poverty reduction in rural areas of low income countries. Diversification takes place in order to overcome risk and seasonality in natural resource-based livelihoods, but it also reflects the failure of agriculture to deliver improving livelihoods in the post-liberalisation era. Poverty and vulnerability are often associated with undue reliance on agriculture rather than the converse. Those farms achieving yield growth often do so due to cash resources generated from non-farm activities, rather than being the origin of growth in such activities as is the conventional wisdom. Migration, mobility, flexibility and adaptability are downplayed, ignored, and sometimes blocked by policy and institutions; whereas these are the very attributes of diverse rural livelihoods that can lead in the end to stronger rather than declining rural livelihoods, and improving rather than degrading natural resources

Diversification refers here to the continual adaptive process whereby households add new activities, maintain existing ones and drop others, thereby maintaining diverse and constantly changing livelihood portfolios. It does not refer to individuals switching full-time occupations, nor to the diversity of sub-sector enterprise types in rural areas. Studies of rural income portfolios generally converge on the once startling figure that, on average, roughly 50 per cent of rural household incomes in low income countries are generated from engagement
in non-farm activities and from transfers from urban areas or abroad, remittances and pension payments being the chief categories of such transfers. This has been verified by recent studies in Africa, as well as past evidence from Africa and Asia. In Latin America, the average figure is slightly lower, at around 40 per cent.

There is a great deal of variation around these mean figures at the household level, but less variation than might be supposed when comparing sample evidence across different countries in a particular region. A strong positive correlation between the proportion of household income obtained from non-farm sources and overall household income per capita has been observed in numerous studies. It is also widely found that while diversity of income sources is prevalent across different income classes, the nature of this diversification differs between better off and poorer households. The better off tend to diversify in the form of non-farm business activities (trade, transport, shop keeping, brick making etc.) while the poor tend to diversify in the form of casual wage work, especially on other farms, while remaining heavily reliant on subsistence crop production.

The way diversification patterns change across the income ranges is illustrated by an example from Tanzania in Table 1 below. It is observed that the average farm/non-farm split for this sample is almost spot on the 50:50 division that is a widespread finding in Africa and elsewhere. The relative dependence on agriculture declines across the income ranges from 68 per cent for the poorest quartile to 43 per cent for the richest. It is notable that the share of livestock in the income portfolio of the top quartile more than doubles compared to the bottom quartile, and the share of non-farm business income quadruples from 11 to 44 per cent of the income portfolio.

It might be thought that the attention paid by better off households to non-farm activities would result in the neglect and poor performance of their farming activities. Not so at all. Figure 1 shows for a sample of Uganda farm households how agricultural productivity per hectare rises steeply across the income ranges. The net farm output per hectare achieved by the top income quartile of farmers is nearly 4 times that of the lowest income quartile. This result is not unique: in a series of country rural household samples in eastern and southern Africa this ratio was between 3 and 6 times.

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1 The examples cited in this briefing paper arise from a research project in Sub-Saharan Africa called the LADDER project. Details at www.odg.uea.ac.uk/ladder
Diversification occurs along a continuum that runs from ‘coping’ activities that reflect high degrees of vulnerability to livelihood access (and play a critical food security role in that context) to engagement in non-farm and non-rural activities that permit virtuous spirals of accumulation on the small-scale to occur, thence leading to pathways out of poverty. In emphasizing the positive benefits of diversification, certain potential misunderstandings require clarification:

- diversification and specialisation are not mutually exclusive: a household can have a diverse portfolio of sources from which it derives a livelihood, but individual household members may be specialised in what they do;
- acknowledging the realities of diversification (and, by extension, complex rural-to-urban transitions) does not mean downgrading policy and service support to agriculture;
- improving the yield, stability and income-generating capabilities of farm and other NR outputs remains an entirely valid poverty reduction objective in its own right, but it will not necessary solve all the problems that cause non-farm diversification to be so prevalent.

The positive poverty and vulnerability reduction attributes of livelihood diversification are summarised in Figure 2. Livelihood diversification is both partly predicated on, and itself increases, human capital in terms of experience, skills and willingness to innovate. Livelihood diversification generates earnings and remittances that tend to alter significantly the options open to the household by providing it with cash resources that can be flexibly deployed. These factors contribute to lessening vulnerability by ameliorating risk and reducing the adverse consumption effects of seasonality. In general, livelihood diversification improves livelihoods, and to the extent that it fails to do so, this can often be traced to adverse institutional contexts that penalise people in the market and on the move.

**Diversification and Land Access**

At some risk of over-generalisation, the links between livelihood diversification and land access may be summarised as follows:
(1) land inheritance practices can be a causal factor in livelihood diversification due to sub-division and fragmentation of holdings

(2) land continues to play a critical role as a key asset within a diversified rural livelihood, and indeed diversification can enable improvements to the quality of land and its productivity that are not possible in the absence of the financial resources that it makes available;

(3) the nature of this link varies according to differing circumstances and across income groups, with the poorest typically least able to achieve this virtuous synergy due either to lack of complementary assets (for example, low human or financial capital) or poor security of land tenure or landlessness, or some combination of both these factors;

(4) poorly functioning or outmoded land tenure institutions that inhibit the development of a rental market in land hamper people’s diversification options and can result in inefficient utilisation of land as a resource;

(5) in many rural areas characterized by widespread poverty and vulnerability, women are particularly disadvantaged jointly by diversification (absentee male family members) and customary inhibitions on land use decision making, despite at the same time typically being responsible for ensuring the food security of the household.

Diversification and Common Pool Resources
Some different and some similar arguments apply to the links between diversification and common property resources, including former state-owned resources that are devolved to community management or co-management under Community-based natural resource management (CBNRM) policy initiatives. Again here, the general question must be posed whether CBNRM regimes on balance encourage or inhibit individuals and families from deploying their resources flexibly in order to construct less vulnerable and improving livelihoods.

The CBNRM approach originates from two main directions: a positive stance taken on the capability of communities to manage common property resources; and the search for
institutional alternatives to costly and failing top-down state management regimes over resources such as gazetted forest reserves and national parks. Mixed in with these precursors are a host of subsidiary arguments concerning the ability of local actors to participate in and take control of their own development destiny in the face of the manifest failings of bureaucratic central authority to do so. Yet evidence is emerging of disappointing outcomes from CBNRM, and some reasons for this, linked to livelihood diversification, are summarised briefly as follows:

(1) CBNRM regimes tend to be spatially exclusionary; they identify the resource as a territory pertaining to a particular community, however, territorial exclusion may inhibit mobile livelihood strategies or may be inappropriate for fugitive resources such as wildlife and fish stocks;

(2) CBNRM regimes tend to assume a homogeneity of interest in the resource across community members, however, some community members have a lot less interest or reliance on the resource than others, and the exercise of communal access may not correspond to, or may even oppose, these variations in underlying reliance or needs;

(3) CBNRM functioning will tend to represent the interests of resident community members, not those that are involved in mobile lifestyles away from the community and are therefore unable to be involved in local decision making;

(4) In certain circumstances CBNRM regimes may exclude the interests of minority ethnic groups since decision making will tend to be dominated by majority groups; similar exclusions may occur along religious or caste lines;

(5) In practice CBNRM regimes are often male dominated, and in patriarchal societies they may even strengthen the control of men over resources to which women previously enjoyed relatively unimpeded access under poorly implemented state regulation;

Artisanal Fishing in Malawi as an Example
CBNRM was introduced to Malawian fishing villages, first by the German aid agency GTZ in the late 1990s, and later in legislation that promoted its widespread implementation in the
sector. The institutional device that was created was the Beach Village Committee (BVC) as a coordinating and regulatory body at the community level. The negotiation and implementation of BVCs in Malawi seems to have been founded on several implicit or explicit CBNRM propositions:

- that no pre-existing indigenous regulatory mechanisms regarding artisanal fishing existed in Malawian villages
- that artisanal fishermen were specialised single occupation enterprises, who comprised the poorest of the poor in rural Malawi and had few if any alternative livelihood sources
- that communities were ethnically, occupationally, and distributionally relatively homogeneous, resulting in a common interest in management of the resource
- that artisanal fishermen exploiting an open access resource were chiefly responsible for endangering the future productivity of Malawian lakes
- that territoriality (each village having command over its own fishing territory) could provide a useful principle for focussing community management efforts

Livelihoods research undertaken in Malawi in 1999-2002 revealed a different picture of artisanal fishing from this blueprint. In many Malawian fishing villages, fishing is predominantly undertaken by visiting fishermen from other parts of the country who are a different ethnic group from the resident villagers, and who as outsiders have no customary rights with respect to village decision-making or access to resources other than the fishery. These migrant fishermen are not the poorest of the poor, nor is fishing their only option. In the event of declining catches and rising costs in the fishery, they turn to other activities or return home. The main fish species, for drying and trading in Malawi, the *usipa* and *utaka*, do not obey territorial behaviours; they are fugitive species and can appear in abundance almost anywhere on the lake.

It becomes quickly apparent that institutional arrangements already exist for this fishery. There is an implicit recognition on the part of resident villagers that migrant fishermen bring benefits to their village. Fish landed there opens up the potential for fish trading as an occupation; fishermen and fish traders purchase local agricultural output; work on migrant boats provides seasonal livelihood activity for members of farming families. For these reasons, migrants have historically been welcome: they are allocated land on which to build
houses, or beach areas for temporary accommodation. Similarly, the general territorial case is one of non-exclusion, on the basis that allowing fishermen from other villages into the waters of a particular village also ensures reciprocal access when the fish are somewhere else.

It can be seen that imposing external CBNRM ideas into this negotiated pattern of social and economic inter-relationships creates adverse consequences for diverse rural livelihoods. BVCs are prone to being dominated by village authorities that represent the interests of some resident farmers, not those of migrant fishermen; the principle of territoriality if pursued by BVCs threatens the successful reciprocal exploitation of a fugitive resource by thousands of artisanal fishermen; complex patterns of complementarity in the livelihood patterns of artisanal fishermen and resident farmers that have arisen over decades are destabilised; and it is unclear whether the regulatory functions of BVCs will achieve any greater purchase on the depletion of certain fish stocks than the former top-down regime they replaced.

The associations between different livelihood strategies, asset ownership and poverty status is a critical area for research feeding into the allocation of rights to the poor in CBNRM systems. The use of the livelihoods framework as a diagnostic tool is thus an important means of identifying potential beneficiaries of CBNRM projects and programmes and ensuring that the needs of the poorest are addressed in the design and promotion of CBNRM institutions.

**Synthesis**

This briefing paper takes the view, supported by a considerable literature and much empirical evidence, that livelihood diversification is generally a good thing for rural poverty reduction. It helps to lessen the vulnerability of the poor to food insecurity and livelihood collapse; it can provide the basis for building assets that permit individuals and households to construct their own exit routes out of poverty; and it can improve the quality and sustainability of natural resources that constitute key assets in rural livelihoods. These effects occur because diversification widens people’s options, encourages spatially diverse transactions, increases cash in circulation in rural areas, and enhances human capital by providing those who diversify with new skills and experiences.
These beneficial effects of diversification depend upon social attributes of mobility, flexibility, and adaptability, as well as on the ease of engaging in spatially diverse transactions. These attributes are often inhibited by local level policy environments, as well as by poor local governance, which as often as not are characterised by fees, fines, permits, bribes, licenses, roadblocks and other petty barriers to exchange and mobility. The poor find it more difficult to negotiate such barriers than the better off.

Natural resources are fundamental assets in rural livelihoods, but access to them needs to be viewed through the same lens of widening options and opportunity as livelihood diversification itself. Natural resource management regimes that inhibit exchanges, substitutions and transactions also inhibit livelihood diversification with negative consequences for their long run quality and sustainability. Land tenure and common property management institutions are often inhibiting in this way either by placing barriers in the way of transfers between users or by being founded on exclusionary principles in their establishment.

Land tenure regimes are prone to cause multiple difficulties for diverse livelihood strategies. In customary tenure systems, ownership security may be contingent and unclear and risky, making it difficult to exit or enter farming and resulting in patchy and inadequate development of a rental market in farmland. Inheritance rules are typically conservative and patriarchal and exclude women from inheriting or bequeathing land. New land legislation often fails to address fundamental inflexibility problems and is unadventurous in seeking workable institutional methods that could create more scope for land transfers and exchanges while providing security for owners and tenants.

Contemporary approaches to common property resources in the form of CBNRMs, including co-management regimes, also have flaws in a livelihood diversification context. They are almost always sectoral in conception (forests, fisheries, wildlife etc) whereas diverse rural livelihoods are fundamentally cross-sectoral in character; for this reason they assume a homogeneity in reliance on or demand for access to a resource which rarely corresponds to variations in underlying livelihood priorities; they often also embody exclusionary notions of territory that inhibit flexibility and create barriers to the ability of new or different users to access the resource.
The gender construction of property management regimes is almost always disadvantageous to women. Women are often not permitted to own or inherit land; if they are widowed or divorced the land to which they have been entitled within their marriage may be withdrawn from them; within patriarchal societies CBNRM regimes tend to be dominated by men even if it is women who have the greatest stake in the livelihood contributions of the resource that is being regulated.

Considerable scope exists for policy oriented research that could help to clarify the links between diversification, poverty reduction, and natural resource access in low income countries. There is little current knowledge about how land tenure institutions at local levels adapt to the realities of diversification, especially migration of varying durations, and about differential impacts on the poor and on women. Nor is it clear whether and how the advent of decentralised local government influences the interpretation of land tenure legislation in local communities.

A case-study approach to such research is indicated: the complexity of the intersection between land tenure, common pool resource access, diversification (including migration and remittances), gender-differentiated processes and outcomes, and decentralised local government is such that little could be gained by selecting partial aspects and investigating these in a wide variety of different settings. Rather, a first task is to develop a workable research design to investigate the overall set of considerations jointly in a few sites. The purpose of such research should be to inform policy processes already in train for improving access rights to resources, facilitating rental transactions in land, and supporting rural families in devising their own routes out of poverty.
Table 1: Tanzania: Income Portfolios by Income Quartile

- composition of household incomes % -

<table>
<thead>
<tr>
<th>Income Sources</th>
<th>Income Quartile</th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
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<td></td>
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<td>II</td>
<td>III</td>
<td>IV</td>
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<tr>
<td>Maize</td>
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<td>21.5</td>
<td>15.1</td>
<td>7.9</td>
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<tr>
<td>Rice</td>
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<td>14.2</td>
<td>10.3</td>
<td>8.8</td>
<td>10.0</td>
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<tr>
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<td>19.9</td>
<td>23.8</td>
<td>11.8</td>
<td>16.3</td>
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<td>7.7</td>
<td>6.5</td>
<td>14.1</td>
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<td>Sub-Total Agric</td>
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<td>63.3</td>
<td>55.7</td>
<td>42.6</td>
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<td>9.3</td>
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<td>44.0</td>
<td>36.1</td>
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<td>4.2</td>
<td>5.7</td>
<td>2.5</td>
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<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
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</tr>
</tbody>
</table>

Source: data collected from 344 households in 10 villages in 2001

Figure 1: Uganda: Rising Net Farm Output per Ha with Rising Incomes
Figure 2: Positive Attributes of Livelihood Diversification