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## DAC Network on Poverty Reduction

### POVNET Agriculture Task Team Consultation

#### Incorporating Risk and Vulnerability Constraints into Agricultural Policy

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*This Hot Topic paper was drafted by John Farrington, DFID RNR and Agriculture Team, London for the POVNET Agriculture Task Team Consultation on September 20-21(am).*

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## INCORPORATING RISK AND VULNERABILITY CONSTRAINTS INTO AGRICULTURAL POLICY<sup>1 & 2</sup>

### 1. What is the issue and why is it important?

Measures to reduce risk and vulnerability (R & V) are gaining new importance on the agriculture development agenda for at least three sets of reasons (Johnstone, 2004):

- First, the increased risks brought by globalisation and liberalisation, and by corporate penetration of input and output chains;
- Second, the growing view that reducing agriculture-related R & V will allow the poor to engage more fully in markets, so that risk reduction has important *production* as well as *social protection* dimensions;
- Third, new tools (such as new forms of crop insurance) and new concepts (such as dealing coherently with domestic and production-related R & V) (Farrington et al, 2004a; 2004b) suggest new scope for tackling R & V and getting them onto sector policy agenda, but also onto wider agenda such as Poverty Reduction Strategy Papers (PRSPs), Medium Term Expenditure Frameworks (MTEFs) and direct budgetary support (DBS).

Our *objective* here is to introduce to a wider audience the concepts of risk and vulnerability (R & V), to provide a practical classification of these, and to present the main evidence and arguments on whether and how they can be addressed from within a productive sector such as agriculture.

The *issue* is that R & V are rarely considered within the development plans of productive sectors like agriculture, despite the potential for agriculture policy decisions on issues like public investment or service delivery to tackle R & V in both general and targeted ways. There is a need to promote open discussion of these options, to assess what they might cost (either directly, or in terms of the “opportunity cost” of growth foregone), and to work out how they can be implemented.

One noteworthy argument is that initiatives to reduce risk and vulnerability may not ‘drain’ public funds nor reduce public investment in the productive sectors. If managed well, such initiatives can enhance the engagement of the poor in markets, and so stimulate productive

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1. This Hot Topic paper was drafted by John Farrington, DFID RNR and Agriculture Team, London for the POVNET Agriculture Task Team Consultation on September 20-21(am).
  2. Evidence and examples in support of the arguments presented here are contained in three longer papers on which this one draws: Farrington et al, 2004b (available on [www.odi.org.uk/publications/workingpapers](http://www.odi.org.uk/publications/workingpapers)); and Farrington, 2004a + b (available on <http://webdomino1.oecd.org/COMNET/DCD/PovNet.nsf>).

activity. Also, certain types of public investment (e.g. in infrastructure) can stimulate private investment as well as reduce risk (Johnstone, 2004).

Table 1 suggests how agriculture policies that ‘mainstream’ R & V reduction will differ from those that simply ‘go for growth’.

**Table 1. Taking R & V more fully into account: what difference would it make to agriculture sector policies and approaches?**

	<b>Conventional agriculture policies</b>	<b>R &amp; V-sensitive agriculture policies</b>
<b>Objective:</b>	<ul style="list-style-type: none"> <li>To “go for growth”</li> </ul>	<ul style="list-style-type: none"> <li>To capture some growth but at same time to reduce variance around rising productivity trends, trading off some growth to reduce risk; to promote types of agriculture that are explicitly job-creating. Policies impact directly on poverty and ultimately reach more poor people.</li> </ul>
<b>Underlying philosophy:</b>	<ul style="list-style-type: none"> <li>Regards all producers and labourers as fully autonomous economic actors capable of engaging freely with the market</li> <li>Almost exclusive reliance on market mechanisms to reduce poverty</li> </ul>	<ul style="list-style-type: none"> <li>Recognises that some people and areas are excluded from markets; seeks to understand how R &amp; V reduction can help them to engage more fully</li> <li>Moderates market mechanisms and institutions via public investment, publicly-mandated service delivery, and regulation to ensure that the poor engage, and that they are not disadvantaged. Sees the need for measures specifically targeted towards sub-categories of the poor</li> </ul>
<b>Modalities:</b>	<ul style="list-style-type: none"> <li>Relies on ability to pay, and formalised pressure from producers as means of making public services responsive.</li> <li>Cross-sectoral collaboration driven by growth perspectives and mainly with infrastructure, banking etc</li> </ul>	<ul style="list-style-type: none"> <li>Recognises that participatory and empowering approaches will be needed to elicit the requirements of the disadvantaged, and to get public services to respond</li> <li>Cross-sectoral collaboration driven by e.g. need to make R &amp; V reduction coherent across productive and domestic spheres</li> </ul>

## 2. The evidence: what do we know so far?

Risk is defined as the likelihood of occurrence of shocks and stresses plus their potential severity, whereas vulnerability is the degree of exposure to risk, and the capacity of households or individuals to prevent, mitigate or cope with risk. Much of the discussion below focuses on risk. To some degree, vulnerability will also be reduced as risk reduction measures take effect – for instance, households become less vulnerable as assets are retained, created or strengthened in the face of shocks and stresses, and as levels of income and expenditure become more stable. Mechanisms such as personal and property insurance will help towards vulnerability reduction, as will also measures to promote savings, make credit more easily accessible, and, perhaps most important of all, to promote livelihood diversification out of traditional low-income farm or non-farm strategies (Ellis, 1999; Bryceson, 2000; Berdegue et al, 2000; Farrington et al (eds) (forthcoming) .

Agriculture-related risks fall into five main categories, namely risks related to:

**Market performance**, including: input/output price fluctuations, possibly associated with international market changes; stricter quality controls on products; saturation of national markets; transport/storage failures for perishables; high transaction costs for those already operating within markets.

- √ **Responses** by some agriculture departments in some countries include: diversification, achievement of higher quality, and value-addition through improved technology; education, information, extension advice and other service delivery; price fluctuations reduced through storage infrastructure, buffer stocks and forward market ‘hedging’<sup>3</sup>; wider introduction of insurance against loss of crops and farm assets; transaction costs addressed through better enabling and regulatory environments<sup>4</sup>;

**Input and output market access**, including: high transaction costs of getting into markets, lack of assets or skills, exclusion of small farmers through concentrations of power among elites, and discrimination by gender, religion, tribe etc; weak regulation of input quality, risk of eviction by landlords, loss of access by the poor to the commons.

- √ **Responses** include: strengthening skills and diversification as above; capacity building for small farmers to organise (possibly unionise); design and implementation of land-related legislation to prevent unfair treatment of tenants, and to protect access by the poor to common pool resources; land redistribution to the poor where it remains feasible<sup>5</sup>; introduction of area-based development where appropriate;

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3. Such as those being developed by Varengnis at the World Bank (pers. comm.), though there are doubts over the efficacy of these – see, for instance, the DFID Natural Resources and Agriculture Team’s electronic discussion forum: <http://dfid-agriculture-consultation.nri.org>
  4. Improvements in these areas are typically thought to require strong public sector intervention, but there is also a role for the private sector in improving the efficiency of price information and purchase systems, as the village-based computerised *e-choupal* system piloted by the Indian Tobacco Company demonstrates (ITC, 2003).
  5. For an extensive review of concepts and evidence related to land administration and access, see Deininger, 2003.

research into biopesticides and soil ameliorants which are less subject to market price fluctuations;

**Labour markets**, including: downswing in labour demand owing to any of the above factors, decline in demand for unskilled labour as product standards etc rise, limits on choice owing to informal social protection sought via patrons (interlocked markets), risks of casualisation as patron/client arrangements are abandoned<sup>6</sup>; breach of contract; dangerous working conditions.

- √ **Responses** include: support to diversification as above, and support to agriculture-related skills enhancement.

**Environmental factors**, including: pests and diseases; environmental change; weather.

- √ **Responses** include: support to diversification and skills enhancement; publicly-funded research to 'rediscover' and reinforce farmer strategies and counterbalance the private research push towards high-risk, high-yield strategies<sup>7</sup>; new weather-focused crop insurance strategies<sup>8</sup>; investment in communal assets such as irrigation; support for private asset creation.

**Household capacity and status**, including: gender and generational constraints and poor health in particular HIV/AIDS.

- √ **Responses** include insurance policies (pension, health), targeted food aid, reform of land tenure/inheritance, reform of extension services and promotion of low input agricultural technologies.

It is possible to categorise the 'rural poor' in an effort to identify what individuals or households are affected by what kinds of risks, and how. For instance, better-off farmers tend to be affected most by market-related risks, and poorer households by labour market risks.

Households themselves have a wide range of traditional ways of reducing risk and vulnerability.

Evidence shows risk reduction through varietal selection, through agricultural (and wider) diversification, and by jointly managing soil, water and vegetation in watersheds to prevent flash floods and erosion and reduce the risk of drought. Means of reducing vulnerability include increasing small-size assets, such as small livestock, that can readily be sold to meet a shock or stress, by reciprocal labour relations, patron-client relations etc.

Although our central focus is on public policy in agriculture, the analysis can be extended *vertically*, to cover R & V-reducing measures that can be taken by higher-level policy. This

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6. For evidence on risks associated with changes in traditional labour relations, see Ruthven and Kumar, 2002.

7. For fuller arguments and examples, see Hazell and Haddad, 2001

8. See Hess (2003). The work he describes has now been implemented as a pilot field experiment in Andhra Pradesh, India, in collaboration between the World Bank and BASIX. Weather-based systems of insurance are intended to overcome the problems of high administrative cost in collecting premia and verifying claims under traditional, individual farm insurance schemes.

includes *international trade* policy, where exposure to low-cost imports and adverse foreign direct investment are major risk factors, but also *national* policy concerning e.g. poverty reduction (including PRSPs), and fiscal measures to ensure appropriate resource generation for public investments and transfers, and Medium Term Expenditure Frameworks governing public resource allocations among sectors, and across provinces.

The analysis can also be extended *horizontally*, to consider the types of R & V-reducing measure that can be taken in other sectors, which would complement agriculture-based measures. Initiatives under small enterprise and employment departments may do so by helping the rural poor to diversify their livelihoods, for instance. A major opportunity for complementarities is between policies in agriculture and domestic spheres, given the large sums of money that flow from one to the other to meet shocks and stresses as and when they occur. Here, potential domestically-focused policies include microsavings, insurance and credit<sup>9</sup>. In addition, transfers such as social pensions and allowances permit the rural poor to engage in the economy, if not as labourers or entrepreneurs, then as consumers. But it is worth recalling that such transfers can release existing informal transfers for productive investment, and there is some evidence that pensions are used for production-relevant investments, such as the education of grandchildren.

### 3. Knowledge gaps

The analysis suggests a number of specific *knowledge gaps* in relation to R & V reduction in agriculture. For instance, we know little about:

- whether informal “protecting” resource flows (such as intra-household food sharing with those unable to engage fully in the productive economy) increase or decrease with increases in formal protection and in overall levels of economic activity. If they decrease, are the resources thereby saved transferred to productive or consumptive activities? Do those unable to engage benefit or suffer overall?
- how the links between R & V, agriculture and gender are played out in relation to women’s practical and strategic interests
- how the private sector might best be supported in designing and marketing appropriate new R & V-reducing products, including micro-savings, credit and insurances.
- the nature of individuals’ trajectories (if any) from being outside to being within the productive economy, what the preconditions for such progression are, and whether/how they might best be put in place<sup>10</sup>.

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9. There is a powerful case for broadening the range of products provided by public, private commercial and micro-finance institutions, which have almost universally been dominated by credit, towards personal and property insurance. The large MFI-focused Planet Finance India project supported by the EC provides examples of how this might be done ([www.planetfinance.org](http://www.planetfinance.org)). Recent evidence shows that women’s groups in a drought-prone part of Andhra Pradesh, India, used their savings to buy personal insurance instead of hardware and materials for the usual (and over-subscribed) income-generating activities such as sewing and handicrafts (A Brizzi, pers. comm.).

10. But see Matin and Hulme (2003) for some evidence on this

#### 4. Policy recommendations

There is some awareness of the characteristics and impacts of R & V in practically all departments of agriculture. But the dominant ‘go for growth’ paradigm (fuelled by increased corporate engagement in agriculture) has encouraged only very patchy implementation of measures which could reduce R & V. Against this context, the major policy requirements at different levels are:

##### **For governments and donors, to:**

- Increase awareness of the *value of reducing R & V for production and poverty reduction purposes*; broaden the range of R & V-reducing measures undertaken within agriculture departments, and mainstream R & V into agriculture planning;
- Increase the *experimentation in reducing R & V*; share the results within and across countries, and promote innovative practice;
- Extend R & V-reducing practice *vertically and horizontally* by demonstrating to departments other than agriculture the contribution that they can make;
- Identify how R & V reduction in *productive and domestic spheres can be promoted coherently*. A major requirement here is to get banks and micro-finance institutions to broaden the range of their products to include personal and property insurance, and to make these affordable and accessible;
- *Insert* both new and existing *R & V-reducing measures into ‘new architecture of aid’ vehicles such as PRSPs, MTEFs* and direct budgetary support, where currently there is scarcely any discussion of R & V reduction within the productive sectors;
- Strengthen national capacity needs and *assess more rigorously the trade-offs between growth-promoting and R & V-reducing measures*, and the costs and benefits of different instruments for achieving R & V reduction, both within and across sectoral mandates.

##### **For the private commercial sector, to:**

- Broaden the range of *financial products* available, with greater emphasis on insurances of various kinds

##### **For civil society organisations, to:**

- *Make demands* on governments to adjust decisions on public investment, service design and delivery, and regulation in agriculture, and in other departments in order to mainstream R & V into decision-making
- *Make demands* on government to support, and the private sector to provide, a wide range of R & V reducing products which reach across domestic and productive spheres, with piloting by NGOs where appropriate and feasible.

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