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MANAGEMENT AND SUPPLY IN AGRICULTURE AND NATURAL RESOURCES: IS DECENTRALISATION THE ANSWER?

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Questions concerning the role and performance of ldc governments have accumulated rapidly over the last decade, arising from domestic fiscal crises, internationally sponsored economic reform programmes and both internal and external pressures towards good government. In parallel, the environmental threats posed by rapidly-growing demand for food mean that new, more effective ways of allocating and managing resources and the inputs which enable users to harness their full productive potential must be found. Decentralisation, bringing government closer to people, is one much-proffered solution to both sets of problems. This paper examines the arguments for and against decentralisation in the context of natural resource management. It demonstrates that the merits of decentralisation and the challenges which may be posed to it vary from one resource to another and even for different activities relating to the same resource. It also makes it clear that decentralisation alone is unlikely to solve the problems of natural resource management. Nonetheless decentralisation can certainly make a contribution as the structural component of a broader package of reform aimed at increasing demand-pull from and accountability to rural people.

What are the arguments for decentralisation?

To its supporters, decentralisation puts decision-making in the hands of people who are well-informed, accessible to others, and in a position to make decisions, which are fundamental to the lives of many rural people, in a timely manner. The main advantages are thought to be:

Box 1: Definition of Decentralisation

Decentralisation is a process, a shift in the locus of power from the centre towards the periphery. Beyond this there is little consensus as to the meaning of the word. Some authors use it to refer to almost any move away from central government control, including privatisation. Here we take a narrower view. We focus on restructuring and changes in power relations within

Increased local influence on government

Physical proximity of government institutions improves public access to decision-makers. From improved access, people derive a greater sense of ownership; once implicated in decision-making they are expected to be willing to play a far more active role in implementation.

Improved information flow and speed of decision-making

Decentralisation also helps to increase the volume and quality of information upon which decisions are made. Providing decision-makers in the natural resources sector with adequate information is difficult for two reasons:

- The volume of information required for effective decision-making is very large because of the diversity involved.
- Information does not travel easily in rural areas because of poor communications infrastructure.

Reducing the distances over which information must flow helps to alleviate these problems, and should speed up decision-making. Timing is critical in the natural resources sector because of the nature of the goods in question and the exigencies of the agricultural calendar.

Better opportunities for partnership

The complexity of managing natural resources and delivering rural services is so great that a single provider can never hope to satisfy all needs - the emphasis is on partnership. Decentralised agencies are thought to be in a better position to interact with new providers than their centralised forbears, since these providers, especially non-profit organisations with whom partnerships may be particularly fruitful, usually operate at a local or regional level. In order to identify which of these organisations to support decision-makers require information. In order to design the most effective partnerships they require flexibility. Sustained partnership often calls for a web of formal and informal relationships between organisations; reducing physical and social distances between actors and ceding power to them encourages these to develop.

government. Decentralisation does not, however, imply that all power resides at the periphery. The centre still sets broad policy guidelines and goals and is responsible for coordination between decentralised units in addition to supplying certain key goods and services.

Decentralisation within the law-making, legislative branch is referred to as *devolution*.

This involves the creation or revitalisation of elected bodies at a lower level.

Decentralisation within the appointed bureaucracy, or executive branch, is known as *deconcentration*.

This involves a shift in operational power away from the central ministry to sub-units outside the capital. It may coincide with a redefinition of the scope of a ministry but such a change is not, in itself, an example of deconcentration.

How do devolution and deconcentration relate?

Logically the two processes are independent; although they often take place concurrently this is not necessarily the case. However, since legislative agencies depend upon executive agencies to put their decisions into action, devolution is unlikely to be effective without some accompanying deconcentration.

Better ability to target the poor

Many former public sector activities are more efficiently and effectively managed by the private commercial sector. However, this often means that the poorest, because of their inadequate purchasing power, are excluded. Targeting government services to these people is not easy. It requires detailed knowledge of local circumstances, in order to identify needs and to find ways of meeting them which do not unduly distort the incentives of private suppliers. Decentralisation of decision-making should provide a helping hand.

Faster learning of lessons

Implicit in the concept of decentralisation is the idea that officials in different locations will take different decisions. By expanding the range of experience, decentralisation should therefore accelerate the rate at which lessons are learnt, both by sub-national units and by central authorities setting national policy guidelines.

Arguments against decentralisation

Decentralisation is criticised on two accounts: for the way in which it functions and for the way benefits are distributed.

Functional problems

- *Scale:* Decentralisation often creates units which appear to be scattered, rural people to be equally as remote as their centralised forerunners. If this is the case, increased local influence is unlikely to be forthcoming. Also, some traditional users of particular resources, especially forests and rangelands, may live far from the resources themselves. If administrative boundaries are drawn between users and the resource, formal accountability and possibly even access are removed. Users who live close to the resource may be new settlers and have a more exploitative attitude to it.
- *Attitude of centralised authorities:* Decentralisation of decision-making implies a

Box 2: Management of water at the hydrologic scale

There is an inescapable logic to managing water resources at the hydrologic scale of the river/drainage basin. Data collection, monitoring and regulation on such a scale allows for cohesive overall planning and rational allocation between competing demands across a range of uses and sectors. Where river basins are small relative to the area occupied by a country itself, such river basin management calls for decentralisation. Conversely, where river basins cover the whole country, basin management calls for a high degree of centralisation. If this logic is carried through, those basins which fall beyond the boundaries of a single country (such as the Nile) may require significant levels of inter-state collaboration if they are to be efficiently managed.

While this model may be attractive, and was indeed followed in the classic case of the Tennessee Valley Authority in the USA, it is very difficult to put it into practice. Most river basin authorities span a number of administrative units and consequently face significant jurisdictional challenges. Being unable to raise resources, they have frequently

reduction in the power of central authorities. Unfortunately it is such centralised authorities which must usually design and establish the new structure. If they see in it a damaging loss for themselves they may be tempted to include mechanisms which mitigate its effects, such as a continued insistence that all donor money flows through the centre. If this is the case the transfer of authority will be more nominal than real.

- *Reduction in quality of governance:* While supporters of decentralisation applaud the expansion in the number of decision-makers within the public sector, critics claim that it lowers the overall quality of decision-making. They argue that only at the centre are there individuals of sufficient quality and experience to understand the full implications of their decision-making and consequently to learn from the mistakes and successes of others.

been reduced to playing an advisory role and have had to manage by consensus across state and national boundaries. For example, the Murray Darling Basin Commission in South East Australia has had to mediate between four state administrations and the federal government. In this case, however, it has been able to derive some leverage from controlling finances for major works involved in river regulation and, more importantly in recent years, programmes of environmental management.

Source: Hugh Turrall

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- *Problems of coordination:* A lack of coordination and communication between the various different levels of government can significantly reduce the scope for learning and increase wasteful duplication of effort, for example in agricultural research. It may also mean that central policy guidelines are overlooked, thereby contributing to a distorted distribution of benefits amongst stakeholders.
- *Problems of reallocation:* Even if government agents correctly identify those who are not well serviced by the market, the process of decentralisation itself may reduce their ability to meet these people's needs. This argument has to do with the power to reallocate resources from relatively wealthier areas to poorer ones. Since decentralisation reinforces local power-bases it may put richer areas in a stronger position to resist relinquishing resources.

Distribution of benefits amongst stakeholders?

Most government decisions involve adjudication between conflicting demands, thereby creating winners and losers. Although, conceptually, changes in structure do not directly change the prospects of conflict resolution, critics contend that they increase the overall likelihood of elite domination.

- *Dominance of elite groups*: Small, elite groups of relatively well-endowed individuals may consistently triumph because they can better manipulate the decision-making process. A particular concern is that local governments or bureaucracies might be unwilling or unable to resist the demands of individuals, companies or consortia operating from the centre. Such pressures are most likely to be applied when resources are of high value; forested land is a more attractive prize than, for example, common grazing land.
- *Dominance of elites within groups*: Even where elite groups do not dominate, there is a genuine danger that individual leaders (i.e. those who engage with decision-makers) pursue significantly different agenda from those of grass-roots members, especially since groups often do not have effective ways of ensuring internal accountability.
- *Dominance of elites within government*: Critics also argue that by multiplying the number of important decision-making points within the government structure and institutionalising greater discretion at a sub-national level, decentralisation opens the way for increased corruption and elite dominance within that structure itself.

Conditions for success

The argument for decentralisation is not therefore clear-cut. A number of preconditions must be met if it is to succeed.

First, to constrain the power of elites which are, by their nature, minorities deconcentrated line ministries must be made accountable to devolved legislative bodies, which in turn should be elected by a widely enfranchised population. It is important to ensure that a transparent electoral system is put in place and that information about candidates and their platforms circulates freely at election time.

Second, people need to be granted the power of association and the right to lobby government agencies. In the absence of these rights elite coalitions will almost certainly dominate, for their power tends not to be wielded through formal mechanisms and not to require conspicuous gatherings of supporters. This is particularly important where deconcentration takes place without devolution.

Third, more concrete ways of enhancing accountability need to be explored, both within the government structure itself and between government agents and the people on behalf of whom they make decisions.

Enhancing accountability within government

If deconcentrated executive bodies are to be fully responsive to the will of devolved legislative bodies, the latter must wield some financial power over the former.

Devolved legislatures have the greatest flexibility when they have the power to raise money from local taxation. Such sums may still need to be supplemented by transfers from the centre. They should not, however, simply be added on to the existing tax burden since this can irreparably damage local perceptions of reform. As decentralised agencies take over some of the responsibilities of central agencies, so local taxes should partially substitute for centrally-imposed taxes.

Attention must also be devoted to finding ways of enhancing accountability between decentralised units of government and their centralised counterparts. The supporting services or broad policy directives which emanate from above can, if appropriate, help solve local problems. Decentralised agencies should therefore be encouraged to contribute, for example to the definition of tenure rights and the elaboration of programmes of agricultural and veterinary research which have an impact upon local resource management and service provision capabilities. A precondition for success here is strong local level representation in higher level decision-making fora. Accountability should also flow in the other direction; it is rarely appropriate for decentralised units to be granted absolute freedom. Matching grants and cost-sharing arrangements are often used by central agencies as a means through which to wield on-going influence.

Box 3: New Organisational Partnerships in Indian Forestry

A recent review of the Ford Foundation programme in South and South East Asia highlights a series of mechanisms which have been successful in changing the working practices of government forest departments. Forest bureaucracies, encouraged by central policy directives, have become more collaborative and developed stronger working relations with NGOs and universities. In these new relationships each has drawn upon the diverse talents and experiences of the others to enhance its own work. For example, NGOs have helped to organise local people, advocate policy change and supply technical and legal assistance to villagers. Universities and research institutions have conducted training courses, developed new action-research methodologies and analysed projects.

Working together, often at the same sites, has facilitated coordination and helped different organisations to develop mutual respect and understanding. These multi-institutional linkages have several important components: community-level

Enhancing accountability to local people

As links become evident between locally-raised resources and the type and quality of services delivered, local people are more likely to become active in governance and to agitate against wastage and abuse. Direct cost-recovery for services provided by the public sector can help, as long as the value of the good or service in question is evident. Another way of making accountability more concrete is to build it in to the incentive structure of public sector agencies. If civil servants are rewarded according to the extent to which they succeed in meeting local needs, they should actively seek out local opinion and respond to local demands. It may be difficult to devise suitable performance criteria, but progress can certainly be made. Rewarding agricultural researchers on the basis of publications or bureaucrats on longevity of service is undoubtedly inappropriate.

None of these prescriptions is simple to execute nor is any beyond dispute. Majority rule drowns-out minorities,

action, policy formulation and research/training. All are needed to achieve meaningful social change. As a precursor to more formal institutional arrangements, working groups and networks have been used to facilitate the exchange of experience between individuals working in a common area. However, an important issue emerging from the experience is the need to develop and institutionalise inter-linked decision-making fora from the local organisation level through to the state policy-making level. As yet only the state of Haryana has made significant steps in this direction. Perhaps the most important lesson to be learnt from India's experience thus far is that there are no universal solutions to the complex problems faced at local level, and thus there is no one ideal institutional form. In the words of Ostrom (1994), 'it is the match of institutions to the physical, biological and cultural environments in which they are located that will enable institutions (and the resources to which they relate) to survive into the twenty-first century.'

Source: Mary Hobley

whether legitimate or not, and enhancing accountability through raising direct financial contributions may force people to make trade-offs, even when basic needs are at stake. Because of the complexity of executing change and the lack of guarantees as to its success, the question of central monitoring, regulation and audit of newly decentralised systems is extremely important. The problem with decentralisation is that it increases the need for detailed scrutiny of activities while simultaneously making this more costly and more complex.

Must structures be tailored to resources?

If decentralisation is to assist in the management of natural resources, it is not simply the general conditions surrounding the process which must be appropriate. Part of the rationale for decentralisation in the natural resources sector lies in the diversity of the resources in question: different resources and the activities pertaining to them require different management structures and capabilities. Correspondingly the potential benefits and dangers of decentralisation are relevant in differing degrees to the various sub-sectors.

For example, the more distinct the optimal management practices of a resource from region to region, the greater the benefits of decentralisation. Activities such as strategic agricultural research which, by their nature, do not focus on very localised conditions, are unsuited to decentralisation. Adaptive agricultural research, on the other hand, is likely to be ineffectual unless decentralised. If, however, local conditions vary widely, as is the case when livestock departments cover mixed arable areas as well as pastoral and nomadic areas, there will be little scope for information transfer between areas and decentralisation will bring little increase in speed of learning. By contrast, specific crop-related activities may be more similar from one area to another so decentralisation may generate valuable cross-fertilisation of experience.

In general, the greater the need for partnership in resource management, the larger the benefits of decentralisation: when ownership and user rights are jointly vested in the state and local people, as in state-owned forests, decentralisation will be highly appropriate. This clearly relates to the nature of the good or service in question and the economics of its provision. Local-level fertiliser delivery is likely to be the responsibility of the private sector. Partnerships with national level importers or between farmer groups and the private sector may be important but partnerships with local bureaucrats are unlikely to be a priority for either side. In agricultural research, on the other hand, the relationship between public sector researchers and their clients should be symbiotic. Box 4 takes the example of agricultural research to show an application of the framework for assessing the benefits and potential disadvantages of decentralisation for particular resources.

Certain types of water resources provide a good illustration of the problems relating to scale. Power in a decentralised system is usually ceded to authorities within existing administrative boundaries. Where resources such as forests and river basins span a number of these regions, decentralisation is more likely to require increased effort in coordination for a given level of output. Ideally, the scope of the decentralised unit should be equivalent to that of the resource in question. However, this would probably result in unmanageable complexity. It is hard to define the boundaries of some resources and in any case the effects of management decisions relating to particular resources may be felt in areas beyond those occupied by the resources themselves. This might be true of the spread of contagious livestock diseases due to a decision not to inoculate in a particular area or, for example, erosion effects resulting from poor forest management. Pressing environmental problems usually require national and even international coordination. This would also neglect the value of bringing together decision-making on certain resources so that critical interactions between them are not over-looked. Forests are vital catchment areas for water but are usually managed by separate authorities, and extension agents in their work with farmers face questions and requests relating to everything from transport to livestock and irrigation. If all resources are dealt with separately then they are unlikely to be in a position either to answer questions or to feed back farmers' views to their colleagues in other areas.

In general there is a complex interaction of political, economic and biophysical factors in the question of scale and where boundaries should be drawn. Certainly, where the sums of public money flowing into the management of a particular resource are high, as in the case of water, central governments have a strong political incentive not to cede control, with some justification. Since 1940 eighty percent of Mexican public expenditure in agriculture has been dedicated to irrigation projects, the capacity to manage such sums of money is certainly not born overnight while opportunities for elite domination may well be.

Box 4. Schematic guide to assessing the likely impact of decentralisation, and an application to agricultural research

BENEFITS	Impact of	Comment
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	Decentralisation	
Increased local influence on government	YYY	Enhances prospects of familiarising people with actual and potential benefits of research; reduces the transaction costs to NGOs of interacting with government.
Improved information flow and faster learning	YYY	Issues will differ according to agro-ecological zones. Ideally, applied/adaptive research centres need mandates consistent with such zones, and communication systems to facilitate cross-learning.
Improved partnership opportunities	YYY	Applied/adaptive research are best conducted in a participatory mode. Partnerships with NGOs facilitate both this and the aggregation of demand-pull by farmers on research agenda.
Better ability to target the poor	YY	Allows more precise identification of the needs of the poor; whether adequate

		resources will be allocated to meet the needs depends on government priorities.
POTENTIAL HAZARDS		
Problems of scale	XX	Strategic research is still best conducted at central level. Potentially negative impacts if applied/adaptive research are decentralised by administrative region.
Resistance by central authorities	X	Resources dedicated to applied research relatively small no major infrastructure involved and few high prestige breakthroughs expected.
Reduction in quality of government personnel	----	Some re-structuring actually required: good applied/adaptive research requires a higher proportion of scientists with good field skills and fewer of academic inclination.

Problems of coordination	XX	Potentially severe in applied/adaptive research need for cross-learning via networks, newsletters, e-mail etc.
Problems of reallocation of resources	XXX	Meeting research needs of poorer areas may be particularly costly and local revenue generation possibilities small.
Threat of elite domination	X	Possibility of pressure for disproportionately high allocation to cash crops in comparison to subsistence crops.
<i>Source:</i> John Farrington		

Conclusion

By analysing the potential strengths and pitfalls of decentralisation in relation to the different resources and agricultural services a realistic framework can be set out for how it should proceed and for what in-built safeguards are necessary. Critics' arguments make it clear that the point of departure, in particular the existing configuration of power and interests, will have a profound impact upon the success of the process, measured in terms of the quality of natural resource management and the influence which this ultimately has on rural livelihoods. Systems which are currently over-centralised' will benefit most from reform though sometimes centralisation is more nominal than real. If, for instance, the centre has insufficient capacity for control, day-to-day decision-making and operational management might *de facto* be highly decentralised and so the added value of formalising these arrangements minimal. However, it must be recognised at the outset that changing the structure of government to increase demand-pull cannot on its own solve the problems of bad government or poor resource management. Decentralisation increases the probability of informed decision-making but does not guarantee it. In the quest for mechanisms to

improve natural resource management it may therefore be neither the most important factor nor the most immediate need.

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