

BOUNDARIES AND BORDERS:

**The Question of Scale in the Theory and Practice of
Common Property Management**

By

Marshall W. Murphree

Centre for Applied Social Sciences

University of Zimbabwe

Presented to the Panel on

“MULTIPLE BOUNDARIES, BORDERS AND SCALE”

at the

EIGHTH BIENNIAL CONFERENCE OF THE

INTERNATIONAL ASSOCIATION FOR THE STUDY OF COMMON PROPERTY

(IASCP)

“CONSTITUTING THE COMMONS:

Crafting Sustainable Commons in the New Millennium”

Bloomington, Indiana, U.S.A.

May 31 - June 4, 2000

OUTLINE

I. INTRODUCTION: BOUNDARIES, SIZE AND SCALE	1
II. “SMALL IS BEAUTIFUL” OR “BIG GOVERNMENT” – THEORETIC AND POLICY BIASES.....	3
III. CLOSING THE BOUNDARIES.....	5
IV. TRANSCENDING THE BOUNDARIES.....	6
V. SCALING DOWN AND SCALING UP: PROCESS AND PRINCIPLES	10
Scaling Down.....	10
Sequencing Devolution.....	12
Scaling Up.....	13
LIST OF REFERENCES	16

BOUNDARIES AND BORDERS:
The Question of Scale in the Theory and Practice of
Common Property Management

By

Marshall W. Murphree

Centre for Applied Social Sciences

University of Zimbabwe

Never globalize a problem if it can possibly be dealt with locally.

(Hardin, 1985: 144)

I. INTRODUCTION: BOUNDARIES, SIZE AND SCALE

To cite a prescription from Garrett Hardin in a paper presented to a conference of the IASCP marks me as something of a curmudgeon, a role which - at my age - I rather enjoy. I use the quote, however, not to indulge any personal irascibility, but because it aptly encapsulates a perennial problem of political structure: the assignment of jurisdiction¹ over particular assets and functions across a spectrum of issues, which may range from the local to the global. Regarding natural resources, implicit in the quote are certain assumptions which most of us would accept: that problems in the use and management of natural resources exist. However, problems are different: some can be dealt with locally, some must be dealt with globally, and others require treatment that falls between these two polarities; people organise themselves collectively to deal with these problems; and finally this organisation should functionally match the problem addressed.

Beyond these universals, human history shows little consistency in problem definition or organisational response. Problems may arise from changes in the resource base, either biological, geophysical or anthropogenic in origin. Frequently, they are social; arising from sectional competition and historically located configurations of power. Kalland (1999: 119-

¹ In this paper I use the term “jurisdiction” not only in the sense of legally delimited authority, but as a term to denote a socially determined proprietorial unit which forms the locus of use, management and control over defined areas or resources, be this de jure or de facto. Used in this way, the word has a correspondence with such terms as ownership and tenure. Jurisdictions are rarely, if ever, absolute. Their strengths are determined by their time frames and the conditionalities attached to them. The longer their sanctioned duration, the stronger they will be. The fewer the conditionalities attached to them, the stronger they will be. As Alchian says of ownership, its strength “can be defined by the extent to which the owner’s decisions to use the resource actually determines its use.” (Alchian, 1987: 1031)

120) provides a striking example of two contrasting but simultaneous views of access to the sea and its resources which emerged in the early 17th Century. He notes that in 1609 the Dutchman Hugo Grotius published his book *Mare Liberum* which became “the cornerstone of the emerging ideology about the freedom of the seas that came to characterise Western Europe and North America.” At about the same time Japanese feudal lords were dividing up their coastal waters and assigning them to specially defined fishing villages, establishing an ideology of the closed ocean (*Mare Closum*). Kalland notes the incentives involved. For the Dutch, as a naval based emerging capitalist-imperialist power, the concept of *Mare Liberum* was expeditious. For the Japanese feudal lords, emerging from a bloody civil war, the creation of a *Mare Closum* was an important measure to consolidate their positions. In such ways, the flows of interest and power continuously seek to redefine resource jurisdictions, primarily for appropriative ends.

Jurisdictions are thus socially determined, but this determination is constrained by conditions set by the resource base. Returning to Kalland’s example, he observes that “the predominant interests shaping developments in the seventeenth century were political and economic: ecological considerations hardly played a part at all.” These ecological considerations only emerged, in the example of the North Atlantic fisheries, when the “development of fishing technology reached a point where it was obvious to everyone that something had to be done in order to avoid total ecological collapse.” This has resulted in attempts to “scale up” management through a hierarchical system of jurisdiction. National jurisdictions (e.g. exclusive national fishing zones, themselves sometimes sub-divided) remain in place but fall under the regulative restrictions of a larger jurisdiction created by the countries concerned.

The example I have used provides certain definitional pointers for this panel. Jurisdictions imply boundaries. These may be spatial or resource-specific. They may overlap or be nested in larger systems. But, most importantly they require social boundaries, the specification of who has responsibility, who has authority, who has appropriative rights, and what the limits of these rights and responsibilities are. Issues of scale interpenetrate and influence these boundaries.

In much of the literature, and in common usage, “scale” is used as a synonym for size. Etymologically, however, the word has a nuance that illuminates its meaning, deriving as it does from the Latin *scala*, or “ladder.” Thus scale relates to a graduated series or order. The word has a relational connotation, and in this paper will be used to refer to progressive or cumulative articulations in systemic relationships, be they jurisdictional, functional, spatial, ecological or temporal.

Systemic ecologists use the term in this manner. Holling (1993) is particularly concerned with spatial and temporal scale. On the temporal scale he posits that change occurs at different rates. “Slow change” is cumulative (“decadal accumulations of human influences on air and oceans and decadal to centuries transformation of landscapes”) and “fast change” is a sudden alteration in “fast environmental variables that directly affect the health of people, productivity of natural resources, and vitality of societies.” He thus suggests that “analysis should focus on the interactions between slow phenomena and fast ones and monitoring should focus on long-term, slow changes in structural variables.” On the spatial dimension he notes the development already suggested by our *Mare Liberum* example: “The spatial span of connections are intensifying so that the problems are now fundamentally cross scale in space as well as time.” Lee (1993) develops a typology of “scale mismatches”: spatial,

functional and temporal. Sections II – IV of this paper will focus on the first two of these; temporal scale will be addressed in the concluding section.

II. “SMALL IS BEAUTIFUL” OR “BIG GOVERNMENT” – THEORETIC AND POLICY BIASES

Two contrasting policy thrusts regarding jurisdictional response to spatial and functional scale expansion are in evidence over the last half-century.² One is “Big Government” policy, which seeks to further entrench current national jurisdictions, or indeed to absorb them into larger international jurisdictions. Responding to developing insights about ecological interconnectivity, to resource scarcity (as in our *Mare Liberum* example), to an expanding global economy, and to increasing claims for a “global commons”, this is an approach of comprehensive authority located at a few nodes across the spectrum of expanding scale requirements. It carries with it a strong internal logic: interrelationships of scale are best managed by a unitary jurisdiction, or by a few integrated jurisdictions. Given these points, it is not surprising that this perspective now constitutes a powerful contemporary policy direction.

The contrasting policy thrust, particularly prominent in the last two decades, is one which argues for a reduction in the scope and reach of jurisdictions and a corresponding increase in their number. This is the “Small is Beautiful” policy, to use Schumacher’s (1973) aphoristic phrase, an approach which seeks to place jurisdictions at local or communal levels. The arguments for this approach are familiar to IASCP members and need no extended elaboration here. Small jurisdictions, it is suggested, have smaller transaction costs in management, and controls exerted through peer pressure are tighter and more efficient than the distanced prescriptions on which large jurisdictions have to rely. They are more transparent to their constituencies and thus politically acceptable. Speaking of the United States, Lee comments: “After two generations of Big Government, however, it is less clear that comprehensive control of the required scope is neither politically feasible or workable even if it could be established.” (Lee, 1993: 562)

The “Small is Beautiful” policy has several philosophical and theoretical roots. In part, it is a contemporary reaction to an enduring debate initiated by Tonnies’ distinction between *Gemeinschaft* and *Gesellschaft* and the ascendancy in the first half of the 20th Century of the theories of Spencer and Comte, Marx and Engels, and Weber and Durkheim, which posit a teleological shift from the first to the latter.³ In part it has philosophical roots in the works of such people as Kropotkin and his ideas of social anarchism. (Kropotkin, 1972) Building on this perspective Bookchin has argued that “in the final analysis, it is impossible to achieve a harmonisation of people and nature without creating a human community that lives in a lasting balance with its natural environment.” (Bookchin, 1979: 23) Adams notes that Bookchin “sees ecology as one science which might avoid assimilation by the established order, and he mourns the absorption of environmentalists into governmental institutions...” (Adams, 1990: 85) For Bookchin ecology is integrative and reconstructive, which he links with anarchist ideas of social thought: “The anarchist concepts of a balanced community, a

² The designation of “the last half-century” is used for analytic convenience and may be misleading. The contrasted policy stances discussed have in fact a much longer history than this.

³ For an excellent summary of this debate see Agrawal, 1997: 4-9.

face-to-face democracy, a humanistic technology and a decentralised society – these rich libertarian concepts – are not only desirable, they are also necessary.” (Bookchin, 1979: 27)⁴

The suggestion that the policy of localised jurisdiction has a heritage with links to anarchist thought may rest uncomfortably with some of its protagonists. Much of its contemporary advocacy is less philosophical and more pragmatic. Referring back to the quote from Lee cited earlier, the argument is that experience shows that “Big Government” is neither politically feasible nor workable. An alternative must be found. This is a powerful argument, backed by ample empirical evidence. From the perspective of jurisdictional dynamics, “Small is Beautiful” can be taken to mean “Small is Better.”

Why is this so? Several answers can be put forward, but for me the core reason lies in the alignment of authority, responsibility and incentive. Incentive is the fulcrum for responsibility, the motivation for environmental investments and controls, and requires a clear perception of the links between management inputs and output benefits. Authority and responsibility should be linked. When they are de-linked and assigned to different institutional actors both are eroded. Authority without responsibility becomes meaningless or obstructive; responsibility without authority lacks the necessary components for its efficient exercise. Large jurisdictions tend to lack or obscure these linkages. They claim authority but their authoritative reach exceeds their implementational grasp and they are forced to assign responsibility “downward,” thus breaking the conjunction. Similarly the extended bureaucratic processes which they are forced to employ obscures and sometimes distorts conjunctions between input and output. Small jurisdictions are better placed to sharply delineate and operationalise these essential linkages. Authority and responsibility can either be merged under one institutional actor or tightly articulated between the limited range of actors involved. The relationships between investment and return are likely to be more immediate and apparent.

Both the “Big Government” and the “Small is Beautiful” perspectives have inherent problems in dealing with scale. For “Big Government” the problem is one of filling in the gaps between relatively limited loci of jurisdictional power. One response has been decentralisation; the retention of authority by these jurisdictions and the replication of this authority at lower levels through a number of nodes of delegated responsibility. This inflates bureaucratic and transactional requirements, and limited resources may restrict the reach of this approach. This is certainly the case in Sub-Saharan Africa, where the needs of collective commons management above the level of the household and below levels of formal sub-regional governance remain largely unaddressed or are consigned to some contemporary version of the “indirect rule” approach of the colonial era.⁵ More fundamentally, this response tends to separate authority and responsibility with the effects already mentioned.

The “Small is Beautiful” policy approach has a different problem, that of maintaining congruence across spatial, functional and ecological scale. While it addresses the issue of linkage between authority and responsibility through devolution it may lead to a jurisdictional atomisation which has difficulty in dealing with these scale requirements. The responses of this approach to this problem are discussed further below in Sections III and IV.

⁴ For an expanded discussion see Adams, 1990: 83-86.

⁵ See Barrow and Murphree, 2000.

III. CLOSING THE BOUNDARIES

The title of this Section is drawn from a phrase in Ostrom's seminal analysis of similarities to be found among enduring, self-governing common property resource institutions. (Ostrom, 1990: 88-102) Ostrom provides the classic model for the localised jurisdictional approach which seeks to link authority, responsibility and incentive, discussed above under the rubric of "Small is Beautiful". In doing so she identifies eight "design principles," the first of which is "clearly defined boundaries." Noting that this attribute on its own is not a necessary and sufficient condition for a successful CPR institution,⁶ she nevertheless suggests that "Defining the boundaries of the CPR and specifying those authorised to use it can be thought of as a first step in organising for collective action." (*Ibid.* p. 91)

Jurisdictional boundary-setting has a number of dimensions. It involves a definition of the resource or resources involved. It frequently, although by no means always, has a spatial or territorial dimension. And it requires a definition of entitlement, both in terms of what it involves and who holds it. These definitions render any vision of a localised jurisdiction as an autonomous, homogenised unit simplistic. Smallness of size does not eliminate internal differentiation, determined by age, gender, ethnicity, lineage, culture, socio-economic status or other social categories. These create internal boundaries, some of which are addressed in the case studies of this panel. An effective local jurisdiction is faced in this dimension with the task, not of closing these boundaries but of surmounting them, of finding a ground of sufficient common interest powerful enough to over-ride sectional factionalism.

This in turn leads to the issue of internal legitimacy. Common interest requires organisation and leadership. Here is where the power of history and culture is felt. Where institutionalised norms of collective management exist, organisational leadership, based on customary or consensual legitimations (or a combination of both) is more likely to be effective. When this condition is absent for cultural, economic or historical reasons local cohesion and organised collective action is likely to be difficult if not impossible. Banfield's "amoral familism" is an extreme example. (Banfield, 1958)

Local cohesion and internal regime legitimacy are variables that critically influence the success or failure of the community conservation and community development initiatives that are currently in vogue. The fact that so many of these fail can be attributed in part to the fact that these factors are often not considered when such initiatives are planned, in spite of a growing body of scholarship which shows their importance.⁷ For project planners such factors are elusive and their understanding tedious and time consuming; it is much easier to assume that they are either present or can be imposed. It is doubtful that they can be imposed. Whether they can be induced is a more open question. The last section of this paper will argue that structures of opportunity at local levels can promote internal cohesion and legitimacy, but this is clearly an arena for further scholarship.

⁶ Indeed Ostrom is cautious about referring to any of the "design principles" as necessary conditions for enduring CPR institutions, cf. Ostrom, 1990: 90-92.

⁷ Much of this scholarship is in the field of common property studies. Four of Ostrom's eight "design principles" address the issues involved. Studies using "social capital" concepts (e.g. Coleman, 1990) are also relevant.

External legitimacy is also essential for boundary formation. Jurisdiction over resources or spaces is weak if one's neighbours or other users significantly challenge it. At local levels reciprocal exclusion is, in effect, the technique of negotiated boundary formation.⁸ This does not, of course, exclude negotiated co-operation; reciprocal exclusion and reciprocal collaboration can be synergistic.

When negotiation fails, local level regimes turn to the state for arbitration and external legitimacy. The state, as a coalescive authority, has responsibilities to arbitrate boundary disputes and confer jurisdictional entitlements. In theory, and sometimes in practice, this works well when the state acts outside of sectional interest. Unfortunately, however, too often the state and its private sector allies have their own appropriative interests in local resources and the state is loath to legitimate local jurisdictions in ways that diminish their ability to claim the benefits of these resources. States, even when they grasp the importance of local management and stewardship, thus prefer decentralisation to devolution.⁹ This tendency, more than any other factor, is responsible for the failure of programmes ostensibly designed to create local natural resource management jurisdictions. Responsibility is divorced from authority and entitlement, and such programmes remain co-optive rather than empowering. Typically, such programmes remain, as Murombedzi comments regarding Zimbabwe's CAMPFIRE programme, "informed by a centralising and modernising ethic, even when decentralisation shifts the nexus of this perspective to lower tiers of state governance." Thus, "in such cases the top-down preferences of central government on communities have merely been replaced by the top-down preferences of local governments." (Murombedzi, 2000)

Establishing local jurisdictions over natural resources thus poses a conundrum. Such jurisdictions need the legitimation of the state, but the source of this legitimation tends to be biased against its conferment. Strategies to address this conundrum are discussed in the last section of this paper, but at this point we can take the contradictions involved as an illustration of a critical insight: "closing the boundaries" is not an exercise in isolationism. It is rather a search for regime independence within the context of a larger, scalar, interdependence.

IV. TRANSCENDING THE BOUNDARIES

So far the argument of this paper has run thus: In environmental governance scale and size must be seen as different. Considerations of ecological scale dictate a broad-spectrum system of governance that integrates the parts. Jurisdictional dynamics and experience suggest, however, that a corresponding broad spectrum unitary system of governance does not work;

⁸ An informative case study of negotiated reciprocal exclusion is provided by Jones (2000) in his discussion of the contemporary formation of conservancies in Namibia.

⁹ In this paper, decentralisation refers to the delegation of authority and responsibility to subordinate and dispersed units of a hierarchical jurisdiction, which retain a primary accountability upward to their superiors in the hierarchy. Agrawal and Ribot (2000) term this "deconcentration." I define devolution as the creation of relatively autonomous realms of authority, responsibility and entitlement, with a primary accountability to their own constituencies. This has some similarity to what Agrawal and Ribot call "political decentralisation," which they define as a condition where "powers are transferred to lower-level actors who are downwardly accountable, even when they are appointed." However, I find this terminology confusing and find difficulty in conflating appointment from one source and accountability to another.

in natural resources governance size is an important variable and “Small Works Better.” The empirical evidence for this assertion is, however, fragmentary,¹⁰ and contemporary attempts to develop small jurisdictions are generally marked by failure. A major reason for this failure is that they are, in effect, stratagems of cooptive decentralisation rather than the creation of devolved localised regimes of governance. In other words, robust jurisdictional devolution has not really been tried, reminiscent of G.K. Chesterton’s comment on Christianity: “Christianity has not been tried and found wanting; it has been found difficult and not tried.”¹¹

Even if, however, small sized localised jurisdictions are to be tried, certain problems must be faced, which I have referred to elsewhere as issues of social and ecological topography. (Murphree, 1996) Internally a local regime, to benefit from the advantages of a *Gemeinschaft* type of local governance, must not only be “small” in terms of membership size. The essence of this type of collaboration and control is not quantitative in membership numbers *per se*, it is qualitative and lies rather in a condition of continuous interaction across the membership. “Smallness” thus here has a spatial dimension. If the proprietors of a regime are residentially concentrated, this condition is enhanced; if, on the other hand, they are residentially dispersed, this condition is diminished.

A further consideration is the resource base itself. A residentially compact local regime may correspondingly find itself with a confined and weak resource base, with negative impacts on economic incentives for common management. This is not always the case, and examples exist in, for example, Zimbabwe, Namibia and Botswana, of a residentially compact and socially cohesive local unit with a large and economically valuable resource base under its jurisdiction. Often, however, circumstances do not match this ideal. Examining four proto-conservancies being developed in Namibia’s Conservancy programme, Turner (1996) found cases of socially strong conservancies being attempted on weak natural bases and others where stronger resource bases spread over large areas were matched with sparse and dispersed human populations with little cohesion. Turner comments that “It is from this imperfect fit of places and peoples that most of the operational difficulties of the conservancy concept will arise.” (1996:32) These issues of social and ecological topography illustrate the difficulty of matching jurisdictional size with spatial and ecological scale “internally” within the local regime itself.

Externally, in respect to other regimes, the issue is also about harmonising a local managerial niche with scalar ecological management requirements. It is also about relationships with other regimes, either parallel or hierarchical. Speaking of Mozambique’s best known initiative to date, Tchuma Tchato, Foloma, *et al* comment that “For local people Tchuma Tchato has been as much about defining the political landscape as about managing natural resources.” (Foloma *et al*, 1998) This political landscape for Tchuma Tchato includes regional planning in the Tete Province. However, for Foloma *et al* the starting point is a strong local jurisdiction: “The main way to secure the community stake in the region wide

¹⁰ Examples do exist, however. Ostrom examines four such examples (Ostrom, 1990: 58-88)

¹¹ This quote from Chesterton is embedded in my memory from a reading now 40 years old. I cannot now cite the precise reference, but if pushed could do so. Better still, let the reader peruse Chesterton’s writings, which would be a salutary experience on its own.

zoning plan is to make sure that the overall plan is rooted in each community holding the land and resource rights over their individual parcels.”

In other words, boundaries have to be closed through negotiated and reciprocal exclusion. But, having been closed, they need to be transcended through negotiated and reciprocal interest and interaction. A formula for this transcendence, which maintains the dynamic of local jurisdiction while being responsive to the imperatives of ecological and functional scale, will contain two components.

The first of these is to evaluate the management requirements of specific resources and match these requirements to jurisdictions no larger than are necessary. Jurisdictional scope thus becomes a response to resource-specific ecological and functional scalar considerations, and will vary according to the resources addressed. We can refer to this as the principle of *jurisdictional parsimony*, another way of putting Hardin’s maxim of never globalising a problem when it can be dealt with locally.

The second component in this formula is, when scalar considerations require it, to expand the reach of jurisdictions by aggregation rather than through expropriation. Local jurisdictions remain in place but delegate aspects of their responsibility and authority to collective governance of greater scope in which they continue to play a role. This is, in effect, the eighth of Ostrom’s “design principles” which she reserves for “CPRs that are part of larger systems,” and which she calls the principle of “nested enterprises” in which “appropriation, provision, monitoring, enforcement, conflict resolution, and governance activities are organized in multiple layers of nested enterprises.” (Ostrom, 1990: 90) While it can be argued that most, if not all, local jurisdictions are “part of larger systems,” if one takes this principle to apply to conditions where ecological and functional scale require it, the hierarchical “nested enterprise” approach is consistent with the principle of jurisdictional parsimony already discussed.

Martin (1999) provides us with a good case study of how the principles of jurisdictional parsimony and nested enterprise can be combined. Taking the issue of quota setting for the off-take of large mammal species as his example he reiterates the point found in the principle of jurisdictional parsimony: “There is no need for any institution to be larger than the size of the problem it has to deal with.” He then goes on to note, however, that “Each wildlife species has its own characteristics in terms of home range and mobility... Thus a set of ‘cascaded institutions’ is needed to deal with each aspect of quota setting at the appropriate scale.” (1999: 7) A wildlife manager of long experience and past Deputy Director of Zimbabwe’s Department of National Parks and Wild Life Management, Martin then comes up with a representational table allocating quota setting functions for different tiers of decision making as found in Zimbabwe.

Martin’s schema below is limited to economically valuable safari species and is indicative rather than comprehensive. It could be extended to other species to further illustrate the principles involved. If avian species were included, for instance, delegated jurisdictions over migratory birds could be added at the top of the list to regional, continental or intercontinental regimes covering the African/European flyway. Other avian species, such as guinea fowl and sandgrouse could be added to village jurisdictions. Or, if a village or ward constituted the habitat for an endemic and rare species of bird, a shared jurisdiction involving these entities and larger regimes (including international) could be instituted; provided that this is a negotiated arrangement, with the larger regimes being willing to share in the costs of

management. Moving even further beyond the species focus of the illustration, we can also note that certain issues of environmental management relate to polyvalent problems that are regional, hemispheric or global in nature. Atmospheric pollution is one such issue and is addressed in one of the papers to be presented to this panel. Even at this scale negotiated reciprocity remains an essential ingredient in any solution.

CASCADED INSTITUTIONS ¹²

INSTITUTION	AREA (SQ. KM.)	SET QUOTAS FOR:
Nation	400 000	Dialogue with neighbouring states on elephant, buffalo
Province	50 000	Dialogue on elephant, buffalo
District	10 000	Elephant, lion, buffalo
Ward	1 000	Sable, eland, zebra, giraffe, hippo
Village	100	Leopard, kudu, impala, bushbuck, reedbuck, klipspringer, warthog

It should be further noted that the illustration tells us little about the “cascaded institutions” themselves or the boundaries between them. This was not the focus of Martin’s article, and he uses these categories only to illustrate the hierarchically expansive reach of these categories. In Zimbabwe, these categories and their relationships are essentially imposed rather than negotiated. A process of negotiated jurisdictional boundary setting would produce a somewhat different profile, and this profile would itself be dynamic and changeable. This is illustrated in Jones’ Namibian case where he notes the expectation that “the boundaries of conservancies will change over time as communities adjust to the different requirements of social cohesion, practical organisational constraints, and viable areas for resource management. It can also be expected that relationships of decision-making over management of wildlife and distribution of income will be adjusted over time.” (Jones, 2000)

Linking the efficiency of local jurisdiction with scalar imperatives through “cascaded institutions” or “nested enterprise” is in effect the response of the *Small is Beautiful* policy approach to what was identified as its central problem at the end of Section II, that of “maintaining congruence across spatial, functional and ecological scale.” It is distinguished from the *Big Government* approach of decentralisation in that these coalescive structures rest on negotiated aggregation rather than through the expropriation of authority by larger jurisdictional units. This principle of *delegated aggregation* is, in essence, the democratisation of environmental governance. The implementation of such an approach is discussed in the following and final section of this paper.

¹² Adapted from Martin, 1999: 6.

V. SCALING DOWN AND SCALING UP: PROCESS AND PRINCIPLES

Scaling Down

Given state and centrist interests in maintaining control and appropriative power, already discussed in Section III, and given the asymmetrical power relations between them and local interests, it is difficult to see how genuine devolution to local jurisdictions can be induced. And yet devolution does at times occur. What have been the inducements involved?

From my experience in Southern Africa, four can be identified.

1. The first is administrative imperative matched by conceptual insight in bureaucracy. My example here is the case of the policy shift in wildlife management that occurred in Namibia and Zimbabwe in the 1960s and 1970s. Wildlife administrators in these two countries realistically confronted the limitations of their ability to manage wildlife everywhere and grasped the advantages of devolving authority and responsibility for wildlife (outside national parks) to the owners of private land. They sponsored legislative reform to promote this, with consequent success in ecological and economic terms. This success served, after independence in both countries, as the trigger for similar devolutionist policy in communal land contexts.
2. A second inducement has been the perception of coalescence of vested interest at different levels of governance. Hasler (1995) suggests that “a strength of the CAMPFIRE programme is that in practice it often recognises a multisectoral, multi-level approach and has support at all these levels.” Hasler is here referring to the fact that consensus on the Programme’s devolutionist policy was reached because of a sense among government gatekeepers – the Ministries of Local Government, Agriculture and Environment and Tourism – that they, as well as local communities, would benefit financially and operationally from the policy. This is a “win-win” stratagem that has its limitations (see below). It does, however, have substantive and persuasive salience.
3. The third “inducement” is in effect a process, whether consciously tactical or not. I refer here to the ambiguities of technicism which lie at the juncture between professional advice and political choice. Frequently, governments are unable to fully grasp the implications of advice from their technical agencies. Bell and Clarke’s analysis is relevant here:

“In a specialised sphere such as wildlife management... the formulation of policy detail is delegated to the technical agency. Policy is, therefore, generated at middle management levels but is formally adopted at higher levels; and this, we believe, occurs without a thorough appreciation by the higher government levels of the implications, consequences and requirements of the policy.” (Bell and Clarke, 1984: 471)

The impact of this disjuncture can be seen in the histories of the development of community-based wildlife management programmes in Southern Africa during the 1980s. A devolutionist policy was formulated by technical agencies, informed by scholarship, and gained broad political support by appeals to popular sentiment – was it not after all a removal of discrimination between white and black farmers? The

deeper political and economic implications of the policy were masked in the ambiguous language of current development-speak, talking of “involvement,” “participation”, “co-management” and “revenue sharing.” The policy was given acceptance in principle, on-the ground experiments were initiated, and communities began to experience both the advantages and liabilities of local jurisdiction. In effect a wildlife-based programme of conservation had done an “end run” around politics and sown the seeds of a potential agrarian revolution. This prompted me to write in 1995 that: “In the technically-inspired attempt to transfer the success of strong property rights over wildlife on private land to communal land proprietorial units, the khaki shorts ecology brigade has led us into a largely unrecognised struggle over property rights in rural Africa.” (Murphree, 1995.)

It was only piecemeal and by stages that the political and economic centre began to perceive the profound allocative and appropriative shifts implied and to reassert Big Government’s preferences for decentralisation over devolution. Once in place, however, devolution is difficult to retract. Given a degree of autonomy, local jurisdictions become more aggressive in asserting their rights. Thus for most of the programmes involved the situation is one in which a degree of devolution is in place, usually on a *de facto* basis, but where further movement to *de jure* devolution has been frozen.

4. This brings us to the fourth inducement, which is politics, in this instance the ability of the local to significantly influence the allocative decisions of the political centre. The “win-win” inducements discussed above may apply in certain contexts, but in general devolution involves significant allocative shifts; there will be winners and losers in the competition for entitlements and benefits. Individually, local regimes have little such ability, given the asymmetrical nature of the power relationships that exist between them and the state.

To acquire such ability *local jurisdictions must become a significant political constituency of the state*, a constituency strong enough to counterbalance expropriative interests at the centre and one to which the state is accountable. This condition of “downward” accountability is critical for effectively linking local and larger scale jurisdictions. Indeed we can posit *constituent accountability* as a principle in such relationships.

Two conditions are necessary for this to happen:

- Firstly, local jurisdictions need to be able to organise and act collectively.
- Secondly, they need to embody, in principle and practice, an ideal that corresponds to a general public ethos that confers political legitimacy.

All this takes time and evolution, and renders the typical project image of the stand-alone, local jurisdiction developed within a short time frame ludicrous. But, without this collective presence, which establishes an enduring space in the national political landscape, experiments in local jurisdiction are likely to short-lived. “Scaling down,” to be sustainable, involves “scaling up.”

Sequencing Devolution

Even the most committed devolutionists tend to see devolution as a stochastic, step-by-step process in which authority is conferred in incremental tranches as local competencies in management and responsibility are progressively demonstrated. “Show us that you can manage responsibly and then we will give you the authority to do so” is the watch phrase. However well intentioned, this stance places communities in a “Catch-22” position since authority is a pre-requisite for responsible management.

Although the discussion on inducements above may suggest tactical reasons for an incrementalist approach, my own experience argues strongly for a different sequence in the development of local jurisdictions.¹³ Status provides the essential motivation for such development; clearly defined rights and responsibilities should be recognised as the basis for institutional evolution rather than being held out as its reward. Institutional evolution always involves experiment, and without authority such experiments are both methodologically and substantively defective.

By “experiment” I mean more than simple trial and error. I mean a chain of incremental learning which defines objectives, identifies options, selects and implements approaches, monitors results and adapts objective and action on the basis of these results in a continuous and iterative process. Rural peoples have, of course, been doing this for millennia and in doing so have provided the basis for much of what we now know about agricultural production and the uses of flora and fauna. But in a contemporary world, where local use is constrained by super-local regulation, they have little room for experiment and their role is confined to being the providers of “indigenous technical knowledge” as an informational adjunct to “professional science.” Authority opens up experimental space for local jurisdictions and provides a new basis for collaboration between civil and professional science.

Experimental freedom conferred by devolution refers, however, to far more than the use of environmental goods for human consumption. Devolution is not simply about *resources*, it is about facilitating *resourcefulness*.¹⁴ It carries with it the responsibility for the organisation of management, control and self-sufficiency; and the necessity of discharging this responsibility in an adaptable manner. These attributes cannot be imposed; they must be developed experimentally in local context and the initiating dynamic for this arises not from the anticipation of future entitlement but from the imperatives of immediate empowerment.

Sequencing devolution in this manner also has the advantage of immediately incorporating considerations of time scale into the considerations of the local jurisdiction. As noted in Section I, temporal scale features in the analysis of systemic ecologists, who are concerned with scale mismatches between short-term practice and management and long-term ecological processes. Temporal scale also features in debates about inter-generational equity and sustainability (e.g. Norton *et. al.*, 1998).

¹³ For an instructive case study, see Murphree, 1999.

¹⁴ See Kaplan, 1999, for elaboration.

These concerns are the subject of growing attention in the literature and international environmental debates. In rural localities, particularly in conditions where local jurisdictions are weak or absent, they are unlikely to feature prominently on the agenda of action or planning. Use is determined by the imperatives of short-term need; long-term planning is meaningless since no sense of security of individual or collective long-term placement is present. Strong local jurisdictions change this, since by definition extended duration is one of their characteristics (cf. footnote 1). Perceptions of temporal durability in collective enterprise encourage investments in management and current opportunity cost for future benefit. This is another arena in which civil and professional science can productively interact, particularly through techniques of scenario modelling, preference implementation and monitoring. Starfield, for instance, outlines a modelling approach to wildlife management which is professionally rigorous but which could easily be adapted for use by local groups without technical training. (Starfield, 1997) The same basic technique, expanded to a broader spectrum of institutional considerations and community preferences for the future, has great potential provided that local regimes have the enduring status to motivate their participation. Devolution conferred in bits and pieces over time does not provide this condition; its path should be direct and immediate if it is to capture the potential of the local to plan for, and experiment with, the future.

Scaling Up

In the conclusions to Part II of this paper mention was made of an inherent problem faced by the “Small is Beautiful” approach to governance, that of maintaining congruence across spatial, functional and ecological scale. Such congruence involves inter-connectivity, a condition in which the interests and insights of regimes at different levels of jurisdictional scale interact with positive synergy. The strategy of aggregation through “nested enterprise” or “cascaded institutions” through progressively expanded tiers of delegated authority to meet this challenge is discussed in Part IV, “Transcending the Boundaries.” We have, however, to ask the question whether this strategy is adequate to meet the challenge of preserving the potency and potential of the local to significantly influence environmental governance in an age of globalisation?

In an instructive overview Mattias Finger has recently discussed this question. (Finger, 1999) Finger defines globalisation as “the latest stage of a process where technological, economic, ecological, cultural and military trends, traditionally observable on a geographically limited scale and scope, are extended to the entire globe.” This process, he suggests, is accompanied by a new global institutional reality “in the form of new and institutionalised global organisations (...TNCs, NGOs, multilateral organisations).” Finger identifies four conceptualisations of governance which attempt to deal with this development:

- a) *Structural or “good governance,”* which “involves mainly the democratic structures of a state at a national level only.”
- b) *Regime theory,* which “pertains to a specific issue generally located at the supra-national level, often involving the solution of a specific collective problem by means of the co-operation of nation states and other players.”
- c) *Common property resources management theory (CPRMT)*

- d) *Global governance*, “allowing for supra-state players to increasingly interfere in national and local matters.”

Finger is basically dismissive of the “good governance” and “global governance” approaches. For him “good governance” theory is “particularly unoriginal, as it confuses governance with (American style) government.” Global governance “is closer to wishful thinking than to actual reality: civil society and corresponding civil society NGOs cannot be seen as being on an equal footing with other newly emerging global actors, such as TNCs and multilaterals.” He finds regime theory “the most interesting and promising approach to governance, as it identifies the supra-national level and explicitly addresses the issue of organisations and institutions,” noting however that it “refers to sectoral issues and does not really constitute a comprehensive approach.”

On common property resources management theory (CPRMT), Finger is ambivalent: “While theoretically and conceptually very solid, it is difficult to extrapolate CPRMT beyond the local level, beyond the area of natural resources, and beyond some basic assumptions about stakeholder interests.” He contrasts CPRMT with “true local governance” which, he says, “is something else, namely community-based problem solving within the larger framework of globalisation and localisation... Such collective problem-solving efforts will become increasingly necessary parallel to the process of globalisation and the destructive effects it has on local communities and their livelihoods. They are also quite different from the efforts conceptualised by Common Property Resources Management Theory.” Finger’s preference is for a “true local governance” community-based problem solving approach regionally contextualised on ecological and cultural criteria: “...both the ecological and cultural dimensions point to a regional approach to governance, which, depending on the country and the region, can either be supra- or of sub-national nature.” He does not specify how community based local governance and this regional framework of governance would be brought together. However, he does conclude that “such a conceptualisation would have to locate itself within the overall framework of collective problem-solving... the main issue being the level at which such collective problem-solving makes most sense and has most autonomy.”

These quotes from Finger imply that he is either unaware of that body of literature in Common Property Theory that deals with institutional articulation and local innovation, or has ignored it. Nevertheless, Common Property scholarship should take seriously the most salient aspects of his critique: that the theory must address the redistribution of economic and political power introduced by globalisation, that it must address the articulations between the local and multilateral and trans-national organisations and that it must deal with differential power in these relationships.

For me, Finger underrates the importance of the national context in his casual dismissal of the good governance perspective. While it is true that in myriad ways globalisation has eroded the autonomy of the state, it still remains the central locus for the conferment of entitlements for sub-national jurisdictions and the main representative of their interests in multilateral conventions and agreements. It is for this reason that emphasis has been placed in this paper on the importance of local jurisdictions forming collectively a significant political constituency of the state. While somewhat less important in moderating economic relationships between local interests and those of international capital, the state plays an important role here as well through setting the conditions and inducements for investment. More critically, by establishing strong, *de jure* local jurisdictions, the state can provide a new

context for direct negotiation and collaboration between local and international private sector enterprise.

I do, however, agree with Finger when he locates the starting point for dealing with globalisation-localisation dynamics in “community-based local problem-solving,” if by “problem-solving” we mean institutional resilience and not mere reaction to circumstance. “Resilience is the capacity to use change to better cope with the unknown; it is learning to bounce back.” (Douglas and Wildavsky, 1987: 196) This paper has argued that the motivational source for such local problem solving lies in authority and responsibility and that its resilience arises from the freedom to experiment. In other words, the starting point is strong local jurisdiction, effected by devolution. When ecological and functional scale imperatives require larger jurisdictional reach this is negotiated and achieved by aggregated nodes of jurisdictional collaboration, the “nested enterprises” or “cascaded institutions” which this text has discussed; located, to use Finger’s words, at levels where “such collective problem-solving makes most sense and has most autonomy.”

In this process of scaling up two modes of relationship, simultaneous but operating in different directions, are present. Conjunction is achieved by upward delegation; accountability is directed downwards. Delegation, accountability and their direction are the strands that allow jurisdictional scale to match the demands of ecological and functional scale.

In this paper three themes emerge as principles in the search for a systemic approach which provides for congruence and connectivity in matching functional, ecological and jurisdictional scales: *jurisdictional parsimony*, *delegated aggregation* and *constituent accountability*:

- *Jurisdictional parsimony* is responsive to the imperatives of organisational dynamics and resource specificity and places emphasis on strong, localised jurisdiction;
- *Delegated aggregation* is the mechanism for expanding jurisdictional reach where scalar considerations require this; while
- *Constituent accountability* provides the cohesion that binds the global to the local.

Without these components, disjunction between jurisdictional imperatives and functional and ecological scale is inevitable, and one is forced back to the ineffectual structures and stratagems of Big Government. With them, the search holds out more promise for discovery and resilience in negotiating a viable conjunction between humankind’s local and global use of nature.

LIST OF REFERENCES

- Adams, W. (1990) Green Development: environment and sustainability in the third world. London: Routledge.
- Agrawal, A. (1997) Community in Conservation: Beyond Enchantment and Disenchantment. Gainesville, Florida: Conservation and Development Forum.
- Agrawal, A. and J. Ribot (2000) "Accountability in Decentralisation. A Framework with South Asian and West African Cases." Journal of Developing Areas, *forthcoming*
- Alchian, A. (1987) "Property Rights," in New Palgrave Dictionary of Economics. London: MacMillan, pp. 1031-1034.
- Banfield, E. (1958) The Moral Basis of a Backward Society. New York: The Free Press.
- Barrow, E. and M. Murphree (2000) "Community Conservation from Concept to Practice: A Practical Framework," in D. Hulme and M. Murphree, eds., African Wildlife and Livelihoods. The Promise and Performance of Community Conservation. Oxford: James Currey, *forthcoming June*.
- Bell, R. and J.E. Clarke (1984) "Wildlife Management Policy," in R. Bell and E. McShane-Caluzi, eds., Conservation and Wildlife Management in Africa. Washington D.C.: US Peace Corps.
- Bookchin, M. (1979) "Ecology and Revolutionary Thought," Antipode, 10(3)/11(1): 21-32.
- Coleman, J. (1990) Foundations of Social Theory. Cambridge: Belknap.
- Douglas, M. and A. Wildavsky (1987) Risk and Culture. Berkeley: University of California Press.
- Finger, M. (1999) "Globalisation and Governance," Policy Matters, Issue No. 6, December. (Newsletter of the IUCN Commission on Environmental, Economics and Social Policy) pp. 1-9.
- Foloma, M., S.P. Ye and K. Wilson (1998) "Transcending Boundaries of Scale: Experiences in Mozambique's Tchuma Tchato Program." Paper presented to IASCP Panel, Vancouver, June 1988.
- Hardin, G. (1985) Filters Against Folly. New York: Viking Penguin.
- Hasler, R. (1995) Political Ecologies of Scale: The Multi-tiered Co-management of Zimbabwean Wildlife Resources. London: IIED, Wildlife and Development Series, No.7.
- Holling, C. (1993) "Investing in Research for Sustainability." Ecological Applications, 3(2): 552-555.

- Jones, B. (2000) "The Evolution of a Community-based Approach to Wildlife Management at Kunene, Namibia," in D. Hulme and M. Murphree, eds., African Wildlife and Livelihoods: The Promise and Performance of Community Conservation. Oxford: James Currey, *forthcoming June*.
- Kalland, A. (1999) "*Mare Closum* as a Management Tool in Fishing Societies," in J. Oglethorpe, ed., Tenure and Sustainable Use. Gland: IUCN Sustainable Use Initiative, SUI Technical Series, Vol. II, pp 119-129.
- Kaplan, A. (1999) The Development of Capacity. Geneva: UN Non-Governmental Liaison Service.
- Kropotkin, P. (1972) The Conquest of Bread. London: Allen Lane. First published (from the Russian) in English as articles in Freedom, (*between* 1892-4).
- Lee, K. (1993) "Greed, Scale Mismatch and Learning." Ecological Applications, 3(2): 560-564.
- Martin, R. (1999) "Adaptive Management: The Only Tool for Decentralised Systems." Paper presented to the Conference on the Ecosystem Approach for Sustainable Use of Biological Diversity, Trondheim, Norway.
- Murombedzi, J. (2000) "Committees, Rights, Costs and Benefits: The Question of Natural Resource Stewardship and Community Benefits in Zimbabwe's CAMPFIRE Programme," in D. Hulme and M. Murphree, eds., African Wildlife and Livelihoods: The Promise and Performance of Community Conservation. Oxford: James Currey, *forthcoming June*.
- Murphree, M. (1995) "Optimal Principles and Pragmatic Strategies. Creating an Enabling Politico-Legal Environment for Community Based Natural Resource Management Capacity," in E. Rihoy, ed., The Commons Without the Tragedy? Strategies for Community Based Natural Resources Management in Southern Africa. Lilongwe: SADC Wildlife Technical Coordination Unit, pp. 47-52.
- Murphree, M. (1996) "Approaches to Community Conservation," in: African Wildlife Policy Consultation. Final Report. London: ODA, pp. 155-188.
- Murphree, M. (1999) "Confronting Perversity. Surmounting Stalemate in Environmental Governance." Keynote address to the ERCC Seminar in Governance, Property Rights and Rules for Woodland and Wildlife Management in Southern Africa, Harare, November.
- Norton, B., R. Constanza and R. Bishop (1998) "The evolution of preferences. Why 'sovereign' preferences may not lead to sustainable policies and what to do about it." Ecological Economics, 24: 193-211.
- Ostrom, E. (1990) Governing the Commons. The Evolution of Institutions for Collective Action. Cambridge: Cambridge University Press.
- Schumacher, E. (1973) Small is Beautiful: Economics as if people mattered. London: Bland and Briggs.

- Starfield, A. (1997) "A Pragmatic Approach to Modelling for Wildlife Management." Journal of Wildlife Management. 61(2): 261-270.
- Tonnies, F. (1963) Community and Society. New York: Harper. Originally published in German in 1889.
- Turner, S. (1996) Conservancies in Namibia: A model for successful common property resource management? Occasional paper, Social Sciences Division, Multi-disciplinary Research Centre, University of Namibia, Windhoek.