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Community-Based Wildlife Management in Africa: A Critical Assessment of the Literature

ABSTRACT

The protectionist approach to wildlife conservation has been blamed by some conservationists for failing to protect wildlife and its habitats, especially in Africa. The failure of this approach has triggered a rush by conservationists to find alternatives. One alternative that has gained support is the Community-Based Wildlife Management (CWM) approach. Four assumptions underlie CWM: (1) that the national governments and their wildlife authorities are willing to devolve ownership of, and management responsibilities for, wildlife to rural communities; (2) that the communities are interested to participate in managing wildlife; (3) that the communities have the capability to manage wildlife; and (4) that wildlife conservation and rural economic development are compatible. The idea of CWM is put to the test by bringing together the existing views on the approach and assessing the plausibility of the four assumptions on the basis of the literature. Although the aim of CWM—to address the failures of fences-and-fines—is laudable, the four assumptions are problematic. The approach is, therefore, less effective than it is said to be.

I. BACKGROUND

When colonial governments were established in Africa, they placed the control and management of all wildlife and the lands on which it existed under state ownership. Local communities were, in all except a few cases, forcibly relocated and alienated from the resources they, or their

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chiefs, formerly had the right to own and control.¹ The argument for this was that they did not have the knowledge, the will, or the training to manage the wildlife in a sustainable way.²

Post-colonial governments continued to embrace and carry on colonial preservation policies.³ The tendency was, or has been, for conservationists, through the respective governments and their wildlife authorities, to unilaterally expand the protected areas or establish new ones.⁴ Communities around these protected areas were seen as the principal threat to wildlife, and the governments, wildlife authorities in particular, focused their attention on barring members of the community from disturbing the areas and the wildlife therein. Some governments went to the extreme. For instance, the Zimbabwean⁵ and Kenyan⁶ governments adopted "shoot-on-sight" or "shoot-to-kill" as their official policy against poaching. As a result, there have been many casualties on both sides due to the exchange of gunfire between park/game rangers and the poachers. In its struggle to preserve wildlife, therefore, the protectionist approach (commonly known as the fences-and-fines approach) caused skepticism, lack of trust, and even hatred between wildlife authorities and the communities in wildlife areas.⁷ Yet there is a growing consensus, especially among conservationists and international conservation organizations, that the protectionist approach has failed to protect the wildlife in Africa.⁸

1. See Robert K. Hitchcock, *Centralization, Resource Depletion, and Coercive Conservation Among the Tyua of the Northeastern Kalahari*, 23 *HUM. ECOLOGY* 169, 169-72 (1995); MICHAEL WELLS ET AL., *PEOPLE AND PARKS: LINKING PROTECTED AREA MANAGEMENT WITH LOCAL COMMUNITIES* 8 (1992).

2. See INT'L INST. FOR ENV'T & DEV., *WHOSE EDEN? AN OVERVIEW OF COMMUNITY APPROACHES TO WILDLIFE MANAGEMENT* 55-56 (1994) [hereinafter IIED].

3. See Nontokozo Nabane & Gordon Matzke, *A Gender-Sensitive Analysis of a Community-Based Wildlife Utilization Initiative in Zimbabwe's Zambezi Valley*, 10 *SOC'Y & NAT. RESOURCES* 519, 519 (1997); Owen J. Lynch & Janis B. Alcorn, *Tenurial Rights and Community-Based Conservation*, in *NATURAL CONNECTIONS: PERSPECTIVES IN COMMUNITY-BASED CONSERVATION* 373, 378-80 (David Western & R. Michael Wright eds., 1994).

4. See Nabane & Matzke, *supra* note 3, at 519-20; Hitchcock, *supra* note 1, at 169-70.

5. See LOUIS LIEBENBERG & DAVID GROSSMAN, *TOWARDS A NEW NATURE CONSERVATION POLICY: DISCUSSION DOCUMENT PREPARED FOR THE LAPC* 8 (Land and Agriculture Policy Centre, South Africa, 1994).

6. See Hitchcock, *supra* note 1, at 170.

7. See Robert M. Muth & John F. Bowe Jr., *Illegal Harvest of Renewable Natural Resources in North America: Toward a Typology of the Motivations for Poaching*, 11 *SOC'Y & NAT. RESOURCES* 9, 10, 18-20 (1998).

8. See Christopher B. Barrett & Ray Grizzle, *A Holistic Approach to Sustainability Based on Pluralism Stewardship*, 21 *ENVTL. ETHICS* 23, 27 (1999); Christopher B. Barrett & Peter Arcese, *Are Integrated Conservation-Development Projects (ICDPs) Sustainable? On the Conservation of Large Mammals in Sub-Saharan Africa*, 23 *WORLD DEV.* 1073, 1073 (1995); Gordon Edwin Matzke & Nontokozo Nabane, *Outcomes of a Community Controlled Wildlife*

Due to the perceived failure of the fences-and-fines approach, since the late 1970s and early 1980s conservationists have been urged to search for alternatives⁹ or, as Siachoono calls it, to find a "lasting solution."¹⁰ A growing realization among conservationists of the importance of understanding the needs and perspectives of human communities in wildlife areas, of interactive communication, and of building or strengthening community-level institutional capacity to manage wildlife¹¹ led to the emergence of two main participatory approaches—passive and active.

The passive participatory approach is known as Community Conservation Services (CCS).¹² It is an initiative in which, like the fences-and-fines approach, local communities are perceived to be not only powerless and passive actors, but also beneficiaries.¹³ CCS focuses on disseminating conservation ethics through education as a means of facilitating externally planned and designed programs. Contribution from the "target" communities is limited to provision of information and labor.¹⁴ In return, the management authorities of neighboring protected areas allocate funds to communities from wildlife revenues and/or external sources to be used for infrastructural development projects such as construction or repair of school and dispensary buildings and roads. CCS programs/projects are meant to compensate the communities for their loss of access to wildlife and other costs they incur. The programs/projects intend to reduce local opposition to protected areas, to remove the (economic) incentives for community members to poach and destroy

Utilization Program in a Zambezi Valley Community, 24 HUMAN ECOLOGY 65, 83 (1996); Nabane & Matzke, *supra* note 3, at 519; Hitchcock, *supra* note 1, at 194-95.

9. See e.g., Shishir R. Raval, *Wheel of Life: Perceptions and Concerns of the Resident Peoples for Gir National Park in India*, 7 SOC'Y & NAT. RESOURCES 305, 305-06 (1994); David Western, *Ecosystem Conservation and Rural Development: The Case of Amboseli*, in NATURAL CONNECTIONS: PERSPECTIVES IN COMMUNITY-BASED CONSERVATION, *supra* note 3, at 15, 15. See generally Milton M.R. Freeman, *Graphs and Gaffs: A Cautionary Tale in the Common-Property Resources Debate*, in COMMON PROPERTY RESOURCES: ECOLOGY AND COMMUNITY-BASED SUSTAINABLE DEVELOPMENT 92 (Fikret Berkes ed., 1989); Henry A. Regier et al., *Reforming the Use of Natural Resources*, in COMMON PROPERTY RESOURCES: ECOLOGY AND COMMUNITY-BASED SUSTAINABLE DEVELOPMENT 110 (Fikret Berkes ed., 1989).

10. Stanford M. Siachoono, *Contingent Valuation as an Additional Tool for Evaluating Wildlife Utilization Management in Zambia: Mumbwa Game Management Area*, 24 AMBIO 246, 246 (1995).

11. See IIED, *supra* note 2, at 19-20, 56-57.

12. See Patrick Joseph Bergin, *Conservation and Development: The Institutionalisation of Community Conservation in Tanzania National Parks* ii, 23 (1995) (unpublished Ph.D. thesis, University of East Anglia) (on file with the University of East Anglia).

13. See *id.* at 23.

14. See Edmund Barrow, et al., *The Peoples' Voice: Partnership and Community Conservation*, in INTEGRATING PEOPLE AND WILDLIFE FOR A SUSTAINABLE FUTURE 255, 255-57 (Joan A. Bissonette & Paul R. Krausman eds., 1995).

wildlife habitats, and to improve relationships between the communities and the managers of protected areas.¹⁵

The search for a "lasting solution" involved more soul-searching: the conservationists retraced their footsteps further and went back to their perceived "enemies," asked for forgiveness, and proposed cooperation, partnership, and the equitable sharing of the costs and benefits of wildlife.¹⁶ They named this active participatory approach Community-Based Wildlife Management (CWM),¹⁷ which is also called Community-Based Conservation (CBC),¹⁸ "more progressive passive participation initiatives,"¹⁹ "conservation through use,"²⁰ and "conservation through self-determination."²¹ The underlying thinking of CWM is that local communities have been alienated from a resource they should rightfully own, control, manage, and benefit from.

Most participatory wildlife management programs are neither passive nor active, as they tend to combine initiatives associated with both.²² However, in the more active approach (CWM), communities are perceived not as mere beneficiaries, but as active participants capable of carrying out wildlife management activities. Unlike CCS, CWM aims at empowering and actively involving communities in the whole process of wildlife conservation—from problem identification through planning and designing programs/projects to implementing and evaluating them. Therefore, an important goal for CWM is to create, through an active participatory approach and cooperation between communities and the respective governments, conditions whereby a maximum number of

15. See IIED, *supra* note 2, at 57.

16. See Alexander Nyangero Songorwa, *Community-Based Wildlife Management: The Case Study of Selous Conservation Program in Tanzania 3* (1999) (unpublished Ph.D. thesis, Lincoln University, New Zealand) (on file with Lincoln University, New Zealand).

17. See Edward B. Barbier, *Community-Based Development in Africa*, in *ECONOMICS FOR THE WILDS: WILDLIFE, DIVERSITY, AND DEVELOPMENT* 103, 105 (Timothy M. Swanson & Edward B. Barbier eds., 1992); *THE WORLD BANK, TECHNICAL REPORT NO. 130, LIVING WITH WILDLIFE: WILDLIFE RESOURCE MANAGEMENT WITH LOCAL PARTICIPATION IN AFRICA iv-v* (Agnes Kiss ed., 1990) [hereinafter *LIVING WITH WILDLIFE*].

18. See David Western & R. Michael Wright, *The Background to Community-Based Conservation*, in *NATURAL CONNECTIONS: PERSPECTIVES IN COMMUNITY-BASED CONSERVATION*, *supra* note 3, at 1, 1.

19. IIED, *supra* note 2, at 57.

20. MARSHALL W. MURPHREE, *COMMUNAL LAND WILDLIFE RESOURCES AND RURAL DISTRICT COUNCIL REVENUES 5* (Centre for Applied Social Sciences Occasional Paper No. 51/93, 1993).

21. David Hyndman, *Conservation through Self-Determination: Promoting the Interdependence of Cultural and Biological Diversity*, 53 *HUM. ORG.* 296, 300 (1994).

22. See IIED, *supra* note 2, at 57-58. See generally Arnold Hughes, *Alternative Forms and Levels of Popular Participation: A General Survey*, in *POPULAR PARTICIPATION IN PLANNING FOR BASIC NEEDS: CONCEPTS, METHODS AND PRACTICES* 52 (Franklyn Lisk ed., 1985).

people in wildlife areas benefit, both directly and indirectly, from the sustainable management and utilization of wildlife.²³ Legal ownership (or at least user rights), control, and management responsibilities for wildlife must be devolved by the respective governments to communities. Proponents of CWM argue that this is a crucial step because it restores a sense of ownership and responsibility for the resource among community members.²⁴

Both passive and active participatory approaches borrow principles from the older concepts of sustainable development and integrated rural development, which demand "that natural resources be used to improve human welfare."²⁵ One principle common to both approaches is that of meeting basic needs of the local people.²⁶ In rural Africa common basic needs include, but are not limited to, food, clothing, shelter, safe drinking water, educational and health facilities, sanitation, and electricity.

However, CWM (the active participatory approach) has adopted two additional principles: (1) putting resources under local control;²⁷ and (2) giving local communities a decisive voice and representation through their own local institutions, which means participation in making decisions that affect them.²⁸ The latter principle intends to increase trust and confidence and strengthen leadership capabilities at the community level. By adopting the first principle above, both passive and active participatory approaches intend to pass a share of wildlife benefits to local communities. However, the most distinctive feature of the active participatory approach is that communities shoulder "a greater portion of the costs of managing wildlife."²⁹

Although CWM is mainly concerned with wildlife conservation, potentially it has political, social, and institutional implications beyond wildlife conservation. As part of the advocacy for popular participation in development, the approach has the potential of becoming a catalyst for socio-political and institutional changes in the communities where it is

23. See JAMES A. BAILEY, *PRINCIPLES OF WILDLIFE MANAGEMENT* 9-14, 337, 342-44 (1984); ROBERT H. GILES, JR., *WILDLIFE MANAGEMENT* 10-28 (1978).

24. See IIED, *supra* note 2, at 64, 68.

25. Nick Salafsky, *Ecological Limits and Opportunities for Community-Based Conservation*, in *NATURAL CONNECTIONS: PERSPECTIVES IN COMMUNITY-BASED CONSERVATION*, *supra* note 3, at 448, 448.

26. See RICHARD FITTER, *WILDLIFE FOR MAN: HOW AND WHY WE SHOULD CONSERVE OUR SPECIES* 172 (1986); Golam M. Mathbor, *The Importance of Community Participation in Coastal Zone Management: a Bangladesh Perspective*, 32 *COMMUNITY DEV. J.* 124, 124-25 (1997).

27. See JON MORIS, *MANAGING INDUCED RURAL DEVELOPMENT* 4 (1981).

28. See Backson M.C. Sibanda, *Environment, Development, and Local Governance in Africa: A Case Study of CAMPFIRE in Zimbabwe*, 17 *REGIONAL DEV. DIALOGUE* 118, 122, 126 (1996); JOHN FRIEDMANN, *EMPOWERMENT: THE POLITICS OF ALTERNATIVE DEVELOPMENT* 35 (1992).

29. IIED, *supra* note 2, at 34.

introduced, and may spread to other parts of the country and lead to a demand for an even greater devolution of power. This is not the subject of this paper but it is a potential area for further research.

The literature portrays CWM as something that has been redeemed or revived. Its proponents argue that from their pre-colonial practices, local communities have accumulated the knowledge and gained the capability to manage wildlife. They argue further that before the communities were alienated from wildlife they, under their chiefs, managed it in a sustainable way.³⁰ This gives the impression that before the communities were alienated they practiced *active* wildlife management, but this is not necessarily the case. In pre-colonial times African communities did not manage wildlife as such. They only harvested it depending upon availability and according to local beliefs, customs, and taboos. Most of these beliefs, customs, and taboos were not intended as conservation measures.³¹ There was little or no over-exploitation only because the harvesting technologies were inefficient and human populations were small.

Therefore, what contemporary rural African communities are asked or expected to do under CWM is new to them, and would have been new also to their predecessors. In pre-colonial times they harvested wildlife mainly for family subsistence.³² Commercial use existed, but was minimal and often localized. But CWM is targeting not families or clans (the pre-colonial, more homogeneous communities with genetically related members) but a single village or groups of villages. Most of these are artificial groupings that never existed in pre-colonial times. For instance, in Tanzania they are a result of colonial and post-colonial state policies and resettlement programs. Also, CWM is not meant for local people to subsist on wildlife. Neither is it for cultural, moral, spiritual, religious, or aesthetic purposes. It is for the protection of biodiversity but through economic incentives or profit making.³³ It is about managing wildlife for an external market—tourists and sport-hunters from affluent countries³⁴—because, according to its proponents, "*wildlife [must]...pay its way.*"³⁵

30. See, e.g., Marshall W. Murphree, *The Role of Institutions in Community-Based Conservation*, in NATURAL CONNECTIONS: PERSPECTIVES IN COMMUNITY-BASED CONSERVATION, *supra* note 3, at 403, 404.

31. See IIED, *supra* note 2, at 13.

32. See Western, *supra* note 9, at 20-21.

33. See Kevin A. Hill, *Zimbabwe's Wildlife Utilization Programs: Grassroots Democracy or an Extension of State Power?*, AFR. STUD. REV., Apr. 1996, at 103, 109, 113; B.J. Kelso, *Environment: The Ivory Controversy*, AFR. REP., Mar.-Apr. 1995, at 50, 52, 54-55; LIEBENBERG & GROSSMAN, *supra* note 5, at 5-7.

34. See LIVING WITH WILDLIFE, *supra* note 17, at 2-3, 10, 17.

35. Western, *supra* note 9, at 28.

In pre-colonial Africa, wildlife harvesting centered on survival of the family or clan. There was no accounting system. The accounting systems (financial and other) accompanying CWM are new and, in most cases, too demanding for the illiterate and semi-illiterate community members. Also, in the pre-colonial harvesting regimes wildlife was not guarded in the way it is supposed to be guarded under CWM—by paid and armed personnel. Whereas the pre-colonial harvesting practices strengthened relationships between family and clan members, CWM tends to “create a small class of salaried locals at the expense of the rest of the community, which in some cases leads to a deterioration in community relations.”³⁶ It means, therefore, that CWM is a new invention. It does not have roots in African communities, neither in pre-colonial communities nor in those we see today. The approach is new also because, unlike the pre-colonial harvesting practices which involved only the communities, it involves multiple interest groups or stakeholders such as international conservation organizations and conservation interest groups in Western countries, or what Physick calls “off-shore NGOs,”³⁷ some of whom the communities have never heard of and are unlikely to come into contact with.

II. ORIGIN AND RATIONALE FOR CWM

The CWM approach has two main components—wildlife conservation and community economic development—and its origin can be explained in two different ways, conceptually and politically. Conceptually, it can again be said to have a dual origin. First is the shift in environmental politics during the 1970s and 1980s from the “exclusionist paradigm,” which assumed an infinite supply of natural resources and excluded human beings from the laws of nature, to an “alternative paradigm,” which argues, among other things, that the supply of resources is limited. The “alternative paradigm” stresses the formulation and implementation of ecologically sound policies.³⁸

Second is the new development concept, which emphasizes such matters as public involvement, cooperative management, power sharing,

36. IIED, *supra* note 2, at 26.

37. Ron E. Physick, *Conservation outside Nature Reserves in Southern Africa with Kwazulu-Natal a Case Study*, in CONSERVATION OUTSIDE NATURE RESERVES 84, 84 (Peter Hale & David Lamb eds., 1997).

38. See GARETH PORTER & JANET WELSH BROWN, *GLOBAL ENVIRONMENTAL POLITICS* 27-32 (1991).

devolution, empowerment, and participatory democracy,³⁹ and demands a shift from concerns about wildlife to broader concerns about the well-being of people. At the same time, a group of conservationists argued that the fences-and-fines approach has failed mainly because of its top-down nature, and because it failed to take into account economic and other interests of local communities, or to involve them in making wildlife-related decisions.⁴⁰ These proponents believe that, as a result, the fences-and-fines approach lost support and commitment from the communities.⁴¹ Therefore, CWM is part of an application of the growing interest by development organizations, theoreticians, and practitioners in the general approach to community development,⁴² and the interest by conservationists to protect biological diversity outside protected-area boundaries.⁴³

In terms of political origin of the approach there have been contradicting views. Possibly basing their argument on the fact that there were wildlife harvesting regimes in pre-colonial Africa, some writers such as Raybourn⁴⁴ and Matzke and Nabane⁴⁵ claim that the approach is a result of "African initiatives." But most of the literature points to the international arena as the origin of this approach.⁴⁶ For instance, opposing the "Africanisation" of this and other contemporary conservation policies, Chidumayo argues that "the only thing that is African about most conventional conservation policies is that they are practiced on African

39. See Lawrence P. Hildebrand, *Introduction to the Special Issue on Community-Based Coastal Management*, 36 OCEAN & COASTAL MGMT. 1, 1 (1997). See generally FRIEDMANN, *supra* note 28.

40. See Barbier, *supra* note 17, at 103-05.

41. See Western, *supra* note 9, at 21-22, 35-39. See generally IUCN-THE WORLD CONSERVATION UNION, 3 PROTECTED AREAS OF THE WORLD: A REVIEW OF NATIONAL SYSTEMS: AFROTROPICAL (1991).

42. See Bill Derman, *Environmental NGOs, Dispossession, and the State: The Ideology and Praxis of African Nature and Development*, 23 HUM. ECOLOGY 199, 200-01 (1995).

43. See J. Peter Brosius et al., *Representing Communities: Histories and Politics of Community-Based Natural Resource Management*, 11 SOC'Y & NAT. RESOURCES 157, 159-60 (1998); IIED, *supra* note 2, at 8.

44. See Jon E. Raybourn, *Communal Wildlife Utilization in Zimbabwe*, in INTEGRATING PEOPLE AND WILDLIFE FOR A SUSTAINABLE FUTURE, *supra* note 14, at 44, 44-45.

45. See Matzke & Nabane, *supra* note 8, at 66, 81.

46. See Benjamin L. Crosby, *Policy Implementation: The Organizational Challenge*, 24 WORLD DEV. 1403, 1403 (1996); Hill, *supra* note 33, at 108-10; Marshall W. Murphree, *Approaches to Community Participation*, in AFRICAN WILDLIFE POLICY CONSULTATION: FINAL REPORT OF THE CONSULTATION 155, 157 (Overseas Dev. Admin. ed., 1996); Derman, *supra* note 42, at 200-01; Clark C. Gibson & Stuart A. Marks, *Transforming Rural Hunters into Conservationists: An Assessment of Community-Based Wildlife Management Programs in Africa*, 23 WORLD DEV. 941, 941 (1995); Siachoono, *supra* note 10, at 246-47; IIED, *supra* note 2, at 17-18, 56-58; Western, *supra* note 9, at 31; WELLS ET AL., *supra* note 1, at 1-2.

land."⁴⁷ The international conservation organizations, donor agencies, and Western states act partly on their own but mostly as a response to pressures from national and international environmental and conservation pressure groups.⁴⁸

Why are international conservation organizations and donor agencies urging African countries to adopt CWM? What are the rationales for this new approach? The main rationale is effectiveness. Proponents of CWM argue that the communities are better placed for wildlife management than governments. They explain that when conservation is community-based, "it limits the number of stakeholders"⁴⁹ and intra-group conflicts,⁵⁰ thus making inclusion and exclusion rules—control over access—easier to enforce.⁵¹ Proponents say that without the continuous watchful attention of other community members, individuals' sense of responsibility disappears.⁵² But the question remains whether CWM is indeed more effective than the fences-and-fines approach.

There are rationales for CWM also related to arguments about knowledge, community rights, and economics. The first is use of traditional wildlife knowledge. Proponents of CWM argue that "local people are the most familiar with the area and the wildlife within it,"⁵³ and that when conservation is community-based, it becomes easier to put into use people's traditional knowledge.⁵⁴ The second rationale is based on the rights of the community. Proponents of CWM argue that when conservation is community-based it restores common rights and responsibilities.⁵⁵

47. Ramachandra Guha, *The Authoritarian Biologist and the Arrogance of Anti-Humanism: Wildlife Conservation in the Third World*, 27 *ECOLOGIST* 14, 16 (1997).

48. See Jonathan Hutton et al., *Conservation and Development Compromised by Animal Welfare*, in *INTEGRATING PEOPLE AND WILDLIFE FOR A SUSTAINABLE FUTURE*, *supra* note 14, at 271, 271, 274; SHIRLEY L. ZIMMERMAN, *UNDERSTANDING FAMILY POLICY: THEORIES AND APPLICATIONS* 85-87 (2d ed. 1995); Sheldon Kamieniecki, *Emerging Forces in Global Environmental Politics*, in *ENVIRONMENTAL POLITICS IN THE INTERNATIONAL ARENA: MOVEMENTS, PARTIES, ORGANIZATIONS, AND POLICY* 1, 1 (Sheldon Kamieniecki ed., 1993).

49. David Western, *Linking Conservation and Community Aspirations*, in *NATURAL CONNECTIONS: PERSPECTIVES IN COMMUNITY-BASED CONSERVATION*, *supra* note 3, at 499, 504.

50. See Shirley C. Strum, *Lessons Learned*, in *NATURAL CONNECTIONS: PERSPECTIVES IN COMMUNITY-BASED CONSERVATION*, *supra* note 3, at 512, 515-16.

51. See Sibanda, *supra* note 28, at 121-22; J.I. Barnes, *Economic Analysis of Community-Based Wildlife Utilisation Initiatives in Botswana*, 12 *DEV. S. AFR.* 783, 786-87 (1995).

52. See Murphree, *supra* note 46, at 158, 162-64; Strum, *supra* note 50, at 512-13.

53. Barbier, *supra* note 17, at 131.

54. See Brosius et al., *supra* note 43, at 163-64; Joanna C. Durbin & Jonny A. Ralambo, *The Role of Local People in the Successful Maintenance of Protected Areas in Madagascar*, 21 *ENVTL. CONSERVATION* 115, 116 (1994); *LIVING WITH WILDLIFE*, *supra* note 17, at 20-21.

55. See Ken Worpole, *A Green Space beyond Self-Interest: In the Search for Social Forms that Value Conservation and Equitable Sharing of Scarce Resources, the Ancient Commons Hold Intriguing Clues*, *NEW STATESMAN*, May 30, 1997, at 30, 30-31 (1997).

But CWM is also part of the wider advocacy for popular participation in development⁵⁶ and arguably an element of a democratization and decentralization process. The third is an economic rationale. At the community level, production and surpluses from wildlife use are supposedly maximized, thereby providing economic incentives for the community to maintain control over access.⁵⁷ It is also argued that where exclusion is successful, the value of land increases⁵⁸ and prices for wildlife emerge, without which "the resource is effectively valueless in the eyes of the landholders who determine the fate of the resource on their land."⁵⁹ CWM is believed to reduce the costs of management and law enforcement.

Since its conception, CWM has gained momentum and spread quickly, generating "cheerleading" attitudes⁶⁰ and "a rush of optimism"⁶¹ among conservationists, international conservation organizations, development practitioners, and aid agencies. But its proponents realized that to bring about a change of direction they needed the support and commitment of the respective governments. They had to convince or even force those governments, through institutional pressure and offers of aid packages, to accept the new approach.⁶²

But the adoption of the concept of community participation in wildlife conservation has divided conservationists into two opposing groups: one praising it and the other (much smaller group) criticizing it as idealistic and impractical.⁶³ Few writers have questioned openly the practicability and sustainability of CWM.⁶⁴ This skeptical group argues that CWM may be too idealistic. But their skepticism and questioning have been

56. See generally Rachel Slocum & Barbara Thomas-Slayter, *Participation, Empowerment, and Sustainable Development*, in *POWER, PROCESS AND PARTICIPATION: TOOLS FOR CHANGE 3* (Rachel Slocum et al. eds., 1995).

57. See Barnes, *supra* note 51, 786-87.

58. See Espen Sjaastad & Daniel W. Bromley, *Indigenous Land Rights in Sub-Saharan Africa: Appropriation, Security and Investment Demand*, 25 *WORLD DEV.* 549, 558 (1997).

59. Brian Child, *Conservation beyond Yellowstone: An Economic Framework of Wildlife Conservation*, in *AFRICAN WILDLIFE POLICY CONSULTATION: FINAL REPORT OF THE CONSULTATION*, *supra* note 46, at 55, 57.

60. Hill, *supra* note 33, at 112.

61. Western & Wright, *supra* note 18, at 10.

62. See Songorwa, *supra* note 16, at 3.

63. There is a variety of ideas and claims regarding CWM. Although all CWM programs strive to reconcile wildlife conservation and rural economic development, they differ from one another depending on their initiator(s), implementers, and the political, social, economic, and geophysical contexts in which they are implemented.

64. See, e.g., Barrett & Arcese, *supra* note 8, at 1073; Gibson & Marks, *supra* note 46, at 942; Kelso, *supra* note 33, at 52; Peter D. Little, *The Link Between Local Participation and Improved Conservation: A Review of Issues and Experiences*, in *NATURAL CONNECTIONS: PERSPECTIVES IN COMMUNITY-BASED CONSERVATION*, *supra* note 3, at 347, 347-49.

attacked by proponents who accuse them of taking a "short-term view,"⁶⁵ of being academics who lack hands-on experience in wildlife management, and of "factual inaccuracies and [making] misleading assumptions."⁶⁶ These proponents also say that this skepticism and questioning is *unhealthy, unsound, and unable* to help to "separate the wheat from the chaff."⁶⁷ But they admit that the principle of community participation, which the CWM approach has borrowed from the concepts of "sustainable development" and "integrated rural development,"⁶⁸ is an ambiguous one.⁶⁹

Herein, we intend to contribute to this debate by assessing some of the assumptions that underlie the CWM approach. In particular, we focus on the role of powers of governments, community interest and willingness, community capability, and the compatibility between wildlife conservation and rural economic development.

III. ASSUMPTIONS UNDERLYING CWM

In the literature on CWM, four (often implicit) assumptions that underlie the approach can be identified. First, that governments are interested and committed to its implementation. In particular, because of their limited capacities in terms of finances, staff, and required information to fight poaching and all other wildlife conservation problems, it is assumed that national governments and their wildlife authorities are willing to devolve ownership of, and management responsibilities for, wildlife to rural communities.

Second, the assumption is made that the communities will have the incentives to conserve wildlife. This assumption can be derived from the origin of the approach in "alternative development," which emphasizes public involvement, cooperative management, power sharing, devolution, empowerment, and participatory democracy; from the claim that the approach puts farmers first by adopting the "Basic Needs" approach; and from a shift in emphasis from concerns about wildlife to broader concerns about the well-being of people.⁷⁰

Third, the claim that the approach puts to use the people's traditional knowledge, the association of the approach with the advocacy

65. Letter from Dr. Ludwig Siege, Coordinator, *Tanzania Selous Conservation Program*, to the Director of Wildlife [Tanzania], the Director Planning and Wildlife Management (PAWM), Mr. Lyamuya, Mr. Ndunguru, the Director of ODA Project, Ruaha, & the Director Serengeti Regional Conservation Strategy 1 (Mar. 6, 1996) (on file with the author).

66. Murphree, *supra* note 46, at 158.

67. *Id.*

68. See Little, *supra* note 64, at 350; Strum, *supra* note 50, at 513.

69. See Murphree, *supra* note 46, at 158.

70. See Brosius et al., *supra* note 43, at 158.

for popular participation, and the adoption of the principles of putting resources under local control and giving local communities a decisive voice all imply that the communities have the capability to manage wildlife.⁷¹

Fourth, the stated interest of the approach in conserving wildlife outside protected areas and in meeting the basic needs of the communities (or improving the communities' economic well-being) implies that the two aims are compatible.⁷²

We do not claim that these are the only assumptions that underlie CWM, nor that these are always implicit and not recognized. Sometimes one or more are explicitly stated in the literature. There are also other assumptions, for instance, presence of two-way means of communication and interaction, that could be identified, but we review only the four mentioned, as they are crucial to all forms of CWM.⁷³ As the "pure,"

71. See *id.*; Gibson & Marks, *supra* note 46, at 944.

72. See Murphree, *supra* note 46, at 164; LIVING WITH WILDLIFE, *supra* note 17, at iii.

73. There are two different ways of classifying programs that implement the CWM approach. One is to use location, which gives two forms. In the first form programs are based on, or associated with, established protected areas—buffer zone programs. Examples of buffer zone programs in Africa include the Lupande Development Project (LDP) and Administrative Management Design (ADMAD) in Zambia and many CAMPFIRE projects in Zimbabwe, especially in the Zambezi Valley. See IIED, *supra* note 2, at 10, 35, 41-42; Hill, *supra* note 33, at 110-18; Simon Metcalfe, *The Zimbabwe Communal Areas Management Program for Indigenous Resources (CAMPFIRE)*, in NATURAL CONNECTIONS: PERSPECTIVES IN COMMUNITY-BASED CONSERVATION, *supra* note 3, at 161, 164-65. The second form of CWM is not associated with protected areas; the programs are located on communal lands far from protected areas. Examples from Africa include Community Game Guards in Namibia and some CAMPFIRE projects in Zimbabwe. See IIED, *supra* note 2, at 43-46; LIEBENBERG & GROSSMAN, *supra* note 5, at 6-7.

CWM programs can also be classified based on the number of parties involved and their levels of involvement. Like the previous method, this classification gives two (main) classes. The first is a class of genuine, truly community-based programs based on the "bottom-up" participatory approach. This is the "ideal" situation whereby communities initiate their own projects by acquiring legal ownership of and gaining control over management responsibilities for wildlife on their lands. See Murphree, *supra* note 30, at 405-07; Frances J. Seymour, *Are Successful Community-Based Conservation Projects Designed or Discovered?*, in NATURAL CONNECTIONS: PERSPECTIVES IN COMMUNITY-BASED CONSERVATION, *supra* note 3, at 472, 490; LIVING WITH WILDLIFE, *supra* note 17, at 6, 10-12, 20-24. The second is a class of joint, cooperative management (co-management) or partnership programs between communities and the respective governments. See IIED, *supra* note 2, at 46-54; LIVING WITH WILDLIFE, *supra* note 17, at 10, 20-24. This method combines "bottom-up" and "top-down" approaches, but, because of the governments' powerful position (compared to the communities), it has more of the latter than the former.

Except for the distance from existing protected areas, the difference between buffer zone programs and non-buffer zone programs is blurred. Both want the communities, at least in theory, to benefit from wildlife. Both want the communities to control access to wildlife on their lands by making / adopting and enforcing inclusion and exclusion rules. Also, both emphasize institutional development and prefer partnership.

"bottom-up" form of CWM exists only in theory, the four assumptions above might be considered irrelevant. If that were the case the following critique would be immaterial. But at least in some degree all forms of CWM share these assumptions. For instance, with regard to the devolution of state ownership, control and management responsibilities for wildlife to the community, the extent of devolution required may differ from one form to another. Also, since all forms intend to involve the community in conserving wildlife (though perhaps to different degrees) and direct to them (differing) portions of wildlife revenues, they all assume that the target communities have an interest in conserving the wildlife. All forms assume that the communities have some level of capability to manage wildlife sustainably. Lastly, as all forms aim to conserve wildlife, and involve an element of community economic development, they all assume that the two aims are compatible. It is, therefore, appropriate to assess the existing forms of CWM based on the four assumptions.

A. Governments and Their Wildlife Authorities Are Willing to Devolve Ownership and Management Responsibilities for Wildlife to Communities

Adopting CWM involves deciding "what responsibilities should go to which institution or level."⁷⁴ In the partnership forms of the approach, governments are expected to relinquish some, or even most, of their powers and responsibilities related to wildlife to rural communities. Decisions related to wildlife management and utilization outside protected areas have to be made locally, with government agencies participating only as facilitators, educators, and coordinators. Also, because, in most cases, existing structures of the agencies do not allow community participation, restructuring is required. The approach assumes that the governments agree to transfer ownership of and management responsibilities for wildlife to communities.

Accounts by Ostrom of Törbel village in Switzerland, Hirano, Nagaike, and Yamanoka villages in Japan, and Zinjera irrigation communities in the Philippines are evidence that sustainable resource management is practicable when it is endorsed by local communities.⁷⁵ However, although it may not be the case in all communities, it is explicitly argued by many proponents of CWM that full endorsement by the communities is achieved when ownership of, or proprietorship over, the resource(s) is

74. Sibanda, *supra* note 28, at 127.

75. See ELINOR OSTROM, *GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION* 61-69, 82-88 (1990).

in their hands.⁷⁶ This requires the respective government to change its natural resource and other related policies,⁷⁷ to move ownership rights and control to the communities,⁷⁸ to secure support and commitment from all its organs and at all levels (central, regional, district, and lower), and to adopt an integrated approach among the agencies within and between the different levels.

It seems logical to expect that governments in Africa would accept CWM. Why not if, through wildlife utilization, the approach improves the lives of their people and conserves the wildlife? Why not if the governments have so far failed to accomplish these things through other means? In practice, however, many governments have been reluctant.⁷⁹ Reasons include (1) the perception that wildlife is a national heritage that must be protected and managed centrally "for the benefit of the whole nation"⁸⁰ and its fate determined only by the state, (2) the "bureaucratic impulse" to hold onto and maximize power,⁸¹ and (3) the tendency by those governments to view popular participation "as politically threatening or economically damaging."⁸² Governments may be hesitant also because by allowing community initiatives they lose control over the locations of (new) developments.⁸³

Also, governments in Africa may be avoiding risks associated with the gamble in CWM.⁸⁴ They do not want to jeopardize the tourism and sport-hunting industries, which are big sources of foreign exchange.⁸⁵ Government agencies responsible for the management of wildlife are also nervous about devolving their authority, whereas the existing wildlife laws

76. See Physick, *supra* note 37, at 85, 87; Murphree, *supra* note 46, at 162-64; Murphree, *supra* note 30, at 406, 419-20; Strum, *supra* note 50, at 516-18; Barbier, *supra* note 17, at 109; SHANNA RATNER & PETER IDE, STRATEGIES FOR COMMUNITY ECONOMIC DEVELOPMENT THROUGH NATURAL RESOURCE USE IN NORTHERN NEW YORK 1-4 (1985).

77. See Bergin, *supra* note 12, at 3-5.

78. See Child, *supra* note 59, at 56-57; FRIEDMANN, *supra* note 28, at 31-34; Fikret Berkes & M. Taghi Farvar, *Introduction and Overview*, in COMMON PROPERTY RESOURCES: ECOLOGY AND COMMUNITY-BASED SUSTAINABLE DEVELOPMENT, *supra* note 9, at 1, 9-15.

79. See Western, *supra* note 9, at 30-40; Strum, *supra* note 50, at 515.

80. Barbier, *supra* note 17, at 131-32.

81. MARSHALL W. MURPHREE, COMMUNITIES AS INSTITUTIONS FOR RESOURCE MANAGEMENT 9 (Centre for Applied Social Sciences Occasional Paper, 1991).

82. Hughes, *supra* note 22, at 53.

83. See Hill, *supra* note 33, at 106-08; Michael McCall & Margaret Skutsch, *Strategies and Contradictions in Tanzania's Rural Development: Which Path for the Peasants?*, in RURAL DEVELOPMENT AND THE STATE: CONTRADICTIONS AND DILEMMAS IN DEVELOPING COUNTRIES 241, 247-51, 260-62 (David A.M. Lea & D.P. Chaudhri eds., 1983); MORIS, *supra* note 27, at 3-4.

84. See Seymour, *supra* note 73, at 472-73.

85. See Derman, *supra* note 42, at 204-05.

make them statutorily responsible for managing wildlife.⁸⁶ Another disincentive may be the cost associated with CWM, particularly in terms of the time required for the process and for managing disagreements among community members.⁸⁷ Lastly, it should be kept in mind that in Africa the CWM approach is a result of external demands. For instance, it is stated in minutes for the 1994 annual national workshop for wildlife officers in Tanzania that "Most of the Community Conservation projects in the country are donor initiated and funded. This approach is top-down and the local institutions...and the communities are only passengers while the donors are doing the steering."⁸⁸ If this is true, then, as Kamieniecki puts it, "[i]t is unrealistic to expect less affluent countries to adopt the radical...reforms being called for by the West."⁸⁹

The assumption that governments support CWM entails the existence of favorable policies and legislation. But the approach is implemented in an uncertain environment, as far as government policies and legislation are concerned. For instance, in Tanzania, Songorwa found that until March 1998, 10 or 11 years after CWM was first introduced, there was no policy or law to legitimize it.⁹⁰ A wildlife policy document existed only in draft (proposal) form, over eight years since its preparation began in 1990 (or even earlier).⁹¹

Although the Tanzanian government admits in the wildlife policy document that in the past it made a mistake to alienate rural communities,⁹² it is not prepared to devolve authority and responsibility for the management of wildlife to local communities. This is evident in that same document where, in sub-section 3.3.3, it states, as one of its strategies for conserving and managing wildlife resources, that it will retain the ownership of and overall responsibilities for management of wildlife in the country.⁹³ This means that, unlike proponents of CWM, the Tanzanian government does not recognize that management of wildlife should be the responsibility of local communities.

86. See MURPHREE, *supra* note 20, at 2-3; Seymour, *supra* note 73, at 484.

87. See Mary Grisez Kweit & Robert W. Kweit, *The Politics of Policy Analysis: The Role of Citizen Participation in Analytic Decision Making*, in CITIZEN PARTICIPATION IN PUBLIC DECISION MAKING 19, 22 (Jack DeSario & Stuart Langton eds., 1987).

88. Tanzania Wildlife Dep't, Workshop Minutes from a National Workshop for Wildlife Officers: National Policy for Wildlife Conservation and Utilisation 13 (Oct. 1994) (unpublished manuscript, on file with the author). See also Barbier, *supra* note 17, at 107.

89. Kamieniecki, *supra* note 48, at 13.

90. See Songorwa, *supra* note 16, at 146.

91. See *id.*

92. See MINISTRY OF NATURAL RESOURCES & TOURISM, THE WILDLIFE POLICY OF TANZANIA 7 § 2.9 (1998).

93. See *id.* at 14 § 3.3.3(ii).

In 1991, a Presidential Commission on land matters proposed that powers to manage village land should be vested in village assemblies, but the Tanzanian government argued that the assemblies were not suitable organs of land administration.⁹⁴ Coldham believes that the Commission's recommendations to the government were not going to be implemented because "it was...optimistic to expect the Government to reverse a 30-year-old policy of interventionism and to 'restore' powers of land administration to panels of elders."⁹⁵ It is perhaps equally optimistic to expect the same government to reverse a century-old wildlife management system. If it does not trust the village assemblies to manage lands, it cannot trust them to manage wildlife, which is one of the biggest sources of its revenues. Opposition to CWM also originates from two other levels: the Wildlife Department and individual wildlife officers.⁹⁶

Even governments, for instance, in Zambia and Zimbabwe that have been reported as "officially" committed to CWM have, in fact, failed to subscribe fully to this new approach.⁹⁷ For instance, after ten years of the Administrative Management Design for Game Management Areas (ADMAGE) program, at no level of the Zambian government was there a clear consensus of what the CWM approach was and there was no official national policy that would enable amendments to relevant legislation to be made to support the approach.⁹⁸ There was no emphasis by the state.⁹⁹

Generally, CWM requires conservationists and the responsible government agencies to involve local communities and groups in those communities in all wildlife-related decisions.¹⁰⁰ But Pilegaard and Gibson and Marks report that until 1995 communities participating in the ADMAGE program had no more rights and powers regarding wildlife

94. See Simon Coldham, *Land Tenure Reform in Tanzania: Legal Problems and Perspectives*, 33 J. MOD. AFR. STUD. 227, 233 (1995).

95. *Id.* at 234.

96. See Songorwa, *supra* note 16, at 147.

97. See Sibanda, *supra* note 28, at 128; Siachoono, *supra* note 10, at 248; Metcalfe, *supra* note 73, at 187; Western, *supra* note 9, at 40.

98. See IIED, *supra* note 2, at 84; Gibson & Marks, *supra* note 46, at 950-52.

99. See Letter from A. Pilegaard, Head of East and Southern Africa Division, *European Commission, Directorate-General for Development*, to Ms. Hoffman, BMZ 2-3 (Jan. 27, 1995) (on file with the author) (transmitting comments on questions of the German Delegation regarding financing proposal for the development of sustainable wildlife management towards the diversification of the economy in Zambia).

100. See generally M. Bathgate & A. Memon, *Towards Co-Management of Fisheries in New Zealand: Paper presented at Sea Views Conference on Marine Ecosystem Management Obligations and Opportunities* (Feb. 11-14, 1998) (unpublished manuscript, on file with author); Steve L. McMullin & Larry A. Nielsen, *Resolution of Natural Resource Allocation Conflicts through Effective Public Involvement*, 19 POL'Y STUD. J. 553, 553, 557-59 (1991).

management than they had before its introduction.¹⁰¹ The program is reported to have emphasized central administration, delegating "too little to communities."¹⁰²

The Luangwa Integrated Rural Development Project (LIRD), also in Zambia, failed to win the committed support of some government agencies, including the Department of National Parks and Wildlife Service, which perceived the project as interfering with its areas of responsibility.¹⁰³ And the Zambia Wetlands Project (ZWP) was inadequately linked to local government structures.¹⁰⁴

The delayed take-off for the Communal Area Management Program for Indigenous Resources (CAMPFIRE) in Zimbabwe is said to have been caused by conflicts of interest and skepticism at the national level about the development of wildlife as an alternative land-use to agriculture and livestock.¹⁰⁵ There are reports also that the Department of National Parks believed it was still in control and that it only lacked financial support from Treasury.¹⁰⁶ Metcalfe reports further that the department feared that by accepting the program it was relinquishing its authority to a rival Ministry.¹⁰⁷

The relevant Zimbabwean government agencies are reluctant to devolve authority to local communities.¹⁰⁸ CAMPFIRE is district-based and district councils are state organs. Matzke and Nabane quote Murombedzi as saying, for instance, that in Nyaminyami district "local participation in [wildlife] management simply does not exist."¹⁰⁹ Also, the communities in Masoka ward manage not wildlife but the 50 percent wildlife revenues allocated to them.¹¹⁰ After all, the "Appropriate Authority" status granted to participating district councils does not mean that the councils have total authority over wildlife in their jurisdictions. Legal authority is retained by the central government.¹¹¹ Derman reports that the government is dragging its feet because it does not want to jeopardize, "through political and social

101. See Letter from A. Pilegaard to Ms. Hoffman, *supra* note 99, at 2; Gibson & Marks, *supra* note 46, at 951-52.

102. Letter from Dr. Ludwig Siege to Director of Wildlife et al., *supra* note 65, at 1.

103. See IIED, *supra* note 2, at 36.

104. See *id.* at 85-86.

105. See Barbier, *supra* note 17, at 111.

106. See Metcalfe, *supra* note 73, at 165-66.

107. See *id.* See also Derman, *supra* note 42, at 205, 211-12.

108. See Murphree, *supra* note 30, at 415-16; Seymour, *supra* note 73, at 484.

109. Matzke & Nabane, *supra* note 8, at 74.

110. See Physick, *supra* note 37, at 85; Hill, *supra* note 33, at 114; Metcalfe, *supra* note 73, at 174-79.

111. See Matzke & Nabane, *supra* note 8, at 66-68.

experimentation," the tourism and safari hunting industries, which are big sources of foreign exchange.¹¹²

The CAMPFIRE program has been operating in an ambiguous situation because of the existing conflict between Zimbabwe's laws and the principles and policy of the program.¹¹³ Katerere et al. speculate that the human population increase in the Zambezi valley (one of the program areas) is a deliberate government strategy, through its resettlement program, to dump people there in order to avoid public pressure to expropriate white-owned commercial farms.¹¹⁴ Also, during the struggle for independence, the current government leaders, then as a nationalist movement, urged rural people to resist the implementation of wildlife conservation policies.¹¹⁵

After reviewing the progress and impacts of fifteen Community Conservation Services and CWM programs and projects in Africa, including the ones above, the International Institute for Environment and Development (IIED) found that some national governments were unwilling to support the approach because it was perceived to threaten central authority.¹¹⁶ Generally, it is reported that "governments [are] effectively putting an 'upper limit' on the role of local community participation in many important planning, implementation, and management decisions."¹¹⁷ All these cases suggest that devolution of genuine powers and community participation in wildlife conservation as objectives are not achievable.

B. Rural Communities Are Willing to Participate in Wildlife Conservation

Poverty—the inability to attain a minimal standard of living¹¹⁸—and its synonyms are the common terms associated with CWM in Africa.¹¹⁹ The majority of rural people in African countries are poor and destitute. At the same time, the lands they occupy are endowed with many

112. Derman, *supra* note 42, at 212.

113. See MURPHREE, *supra* note 20, at 2-4.

114. See Hill, *supra* note 33, at 112.

115. See *id.* at 108.

116. See IIED, *supra* note 2, at 15, 32-33, 57-58. See also WELLS ET AL., *supra* note 1, at 52-53.

117. Barbier, *supra* note 17, at 107. See also Edmund Barrow et al., *Community Conservation Lessons from Benefit Sharing in East Africa*, in INTEGRATING PEOPLE AND WILDLIFE FOR A SUSTAINABLE FUTURE, *supra* note 14, at 21, 21-22; Western, *supra* note 9, at 47; and Metcalfe, *supra* note 73, at 164, 166, 174-79, 183-84.

118. See THE WORLD BANK, POVERTY: WORLD DEVELOPMENT INDICATORS 26 (World Development Report, 1990).

119. See Child, *supra* note 59, at 58; Metcalfe, *supra* note 73, at 165; LIVING WITH WILDLIFE, *supra* note 17, at 1, 6.

unique and spectacular (at least to outsiders) wild animals, which are currently being decimated by poachers. Proponents of CWM are convinced that because of the people's need to free themselves from poverty, destitution, and starvation and their need for development, as long as there are donor funds and credible brokers¹²⁰ they will accept the CWM approach as put forward to them by those proponents.

The community interests referred to in this assumption are mainly economic, that is revenue collection and creation of jobs for community members.¹²¹ But complaints expressed by African farmers and other rural residents there about the animals raise the question of whether they are, or can be, interested in having the dangerous and destructive pest species roaming around their homes and in their farms.¹²²

The main reason rural communities in Africa have negative attitudes toward wildlife is because many species found there are destructive and dangerous.¹²³ For instance, in Tanzania, a group of Village Scouts attending training revealed that crop damage by wildlife led to serious shortages of food in their communities.¹²⁴ As a result of the increasing problem many farmers had to live permanently on their farms to guard crops, thereby forcing children to walk long distances to and from school, further risking attacks by dangerous animals.¹²⁵ A staff member of Selous Conservation Program (SCP) in Tanzania believed that because of increasing crop damage it was going to take time for the program to succeed.¹²⁶

Also, wildlife kills and injures many rural residents. For instance, Songorwa reports 48 deaths and 36 injuries caused by lions in Tunduru district in Tanzania alone between 1985 and 1988—an average of one death

120. See LIVING WITH WILDLIFE, *supra* note 17, at iv, 29.

121. See Murphree, *supra* note 46, at 158, 162-64, 171, 175; Derman, *supra* note 42, at 201-02; Metcalfe, *supra* note 73, at 182-83; LIVING WITH WILDLIFE, *supra* note 17, at 36-40; Cleophas Lado, *Problems of Wildlife Management and Land Use in Kenya*, LAND USE POL'Y, July 1992, at 169, 179-80, 183-4 (1992).

122. See, e.g., Songorwa, *supra* note 16, at 50; M.N. Tchamba, *History and Present Status of the Human/Elephant Conflict in the Waza-Logone Region, Cameroon, West Africa*, 75 BIOLOGICAL CONSERVATION 35, 37-38 (1996); John S. Akama et al., *Conflicting Attitudes toward State Wildlife Conservation Programs in Kenya*, 8 SOC'Y & NAT. RESOURCES 133, 135, 137-42 (1995); Barrow et al., *supra* note 14, at 255; Raybourn, *supra* note 44, at 44; C.R. Thouless & J. Sakwa, *Shocking Elephants: Fences and Crop Raiders in Laikipia District, Kenya*, 72 BIOLOGICAL CONSERVATION 99, 99 (1995); David Parry & Bruce Campbell, *Attitudes of Rural Communities to Animal Wildlife and Its Utilization in Chobe Enclave and Mababe Depression, Botswana*, 19 ENVTL. CONSERVATION 245, 247 (1992).

123. See Songorwa, *supra* note 16, at 50.

124. See *id.* at 282.

125. See *id.* at 283.

126. See *id.* at 282.

a month and three injuries every four months.¹²⁷ Also, he reveals that 29 others were killed and 17 injured, again by lions, in Liwale district between July 1994 and September 1995.¹²⁸

In Botswana, Parry and Campbell found that people experiencing crop and livestock losses to wildlife were, on average, more negative towards it than those who did not experience such losses. The two report that "[t]he most commonly-voiced solution...was that the National Park should be moved further away from the people."¹²⁹ In Cameroon, 36 percent of residents in the Waza-Logone region wanted elephants there to be moved and fenced somewhere far from their area.¹³⁰ In LIRD program areas in Zambia, farmers also wanted the South Luangwa National Park to be fenced and crop-damaging animals to be shot.¹³¹ Likewise in Swaziland where Hackel found that although 90 percent of his respondents favored nature conservation in general, few would like conservation areas to be established near their communities.¹³² Therefore, if it is true that wild "animals are wildlife as long as they pose no direct threat to humans,"¹³³ the question becomes whether these destructive and dangerous species are essential to the livelihoods of rural people.¹³⁴

Since most CWM programs are initiated as a reaction to declining wildlife populations, in most the wildlife populations are small at first. Consequently people-wildlife conflicts are minimal, and the people suffer relatively fewer losses. But the main objective of CWM, especially in buffer zone programs, is to preserve the integrity of the respective protected area and its wildlife and not to replace existing economic activities with wildlife utilization. That means the communities recruited in those programs

127. See *id.* at 345-47, app.1.

128. See *id.*

129. Parry & Campbell, *supra* note 122, at 249.

130. See Tchamba, *supra* note 122, at 39.

131. See Mundanthra Balakrishnan & Dora E. Ndhlovu, *Wildlife Utilization and Local People: A Case-Study in Upper Lupande Game Management Area, Zambia*, 19 ENVTL. CONSERVATION 135, 138, 141-42 (1992).

132. See Jeffrey D. Hackel, *Conservation Attitudes in Southern Africa: A Comparison between KwaZulu and Swaziland*, 18 HUM. ECOLOGY 203, 205 (1990).

Rural people's negative attitudes toward dangerous and destructive species of wildlife are "a wildlife issue" in other parts of the world as well. See, e.g., Guha, *supra* note 47, at 16-17 (for reactions from Chenchu hunter-gatherers to the creation of a tiger reserve in the state of Andhra Pradesh, India); MICHAEL P. MOULTON & JAMES SANDERSON, *WILDLIFE ISSUES IN A CHANGING WORLD* 271-74 (1997) (for opposition to the reintroduction of the secretive panther in northern Florida, United States of America).

133. MOULTON & SANDERSON, *supra* note 132, at 1.

134. But the communities' suffering does not mean that they are totally opposed to wildlife conservation. Where/if it is contained to a level in which it causes less or no harm, they may be interested in conserving it. See also JAMES M. PEEK, *A REVIEW OF WILDLIFE MANAGEMENT* 33-35 (1986).

continue to depend on agriculture and livestock as their main sources of income. Non-buffer zone programs, on the other hand, intend, at least in theory, to make wildlife management a competitive economic land-use on communal lands. But, due to the uncertainties associated with wildlife (unknown sustained yield levels, stability of populations, harvesting patterns of other users [legal and illegal], outbreak of epidemics, and environmental factors such as drought), the uncertainties in the tourism and sport-hunting industries and instability of governments and their policies, the fact that only a few species are marketable, human population increase in program areas, increasing human needs and wants, and other constraints, it is highly unlikely that wildlife conservation can become the dominant land-use.

Where and if wildlife and human populations grow, conflicts increase. Community members lose more and more crops and livestock, and an increasing number of them get killed or injured. Also, indirect impacts such as disruption of social activities whereby community members have to spend almost every day and night guarding their crops and children miss school to help their parents¹³⁵ will increase. But even where wildlife-people conflicts may be on the rise, conservationists and the governments are usually reluctant to help and may actually prevent the communities "from eliminating 'problem' animals."¹³⁶ The most likely outcome is that instead of having their well-being improved as promised by the CWM approach, these communities, whose members are already poor, will sink deeper into poverty.

Participation is a principle borrowed by the CWM approach from the concepts of sustainable development and integrated rural development. It means "the active involvement of people in the making and implementation of decisions at all levels and forms of political and socio-economic activities."¹³⁷ In CWM, participation relates to the voluntary active involvement of rural communities in making choices of planning, implementing, and evaluating programs and projects. It requires active involvement of all, or at least the majority of, community members and all community groups, including women.¹³⁸ However, community participation in wildlife management may be hampered by the tendency for people

135. See Tchamba, *supra* note 122, at 38.

136. LIVING WITH WILDLIFE, *supra* note 17, at 5.

137. Franklyn Lisk, *The Role of Popular Participation in Basic Needs-Oriented Development Planning*, in POPULAR PARTICIPATION IN PLANNING FOR BASIC NEEDS: CONCEPTS, METHODS AND PRACTICES 15, 15 (Franklyn Lisk ed., 1985).

138. See Hazel R. Barrett & Angela W. Browne, *Women's Time, Labour-Saving Devices and Rural Development in Africa*, 29 COMMUNITY DEV. J. 203, 203-05, 212-13 (1994); LIEBENBERG & GROSSMAN, *supra* note 5, at 8.

in a (large) group setting not to cooperate, or to "free-ride."¹³⁹ For instance, in his monthly report for July 1995 one SCP staff member complained about villagers' low attendance at program-related meetings. In the previous month he had reported that out of 15 villages he visited to attend annual budget meetings, in only three villages did any people turn up.¹⁴⁰ Failure to ensure fellow community members' cooperation could make those few villagers indifferent and even hostile to conservation efforts.¹⁴¹ Another factor is the reluctance by many people to use personal or individual resources to produce public goods.¹⁴²

Toulmin et al. state that "[t]he returns from wildlife use can be potentially higher than alternative options of dry land agriculture...."¹⁴³ But, as they, Child, Raybourn, Little, Murphree and Kiss, explain, this is only possible in very poor or marginal areas where soils are poor, the climate is arid, and crop surpluses are rare.¹⁴⁴ Those areas must also have big tracts of uninhabited and uncultivated lands, big wildlife populations, and only a small human population.¹⁴⁵ Only in such areas is the value of wildlife expected to be higher than other land uses. As well as being small, the human population must be economically less stratified, with strong intra-and inter-community linkages and less conflict. There must also be easy access to the market for wildlife products and services. Since all these conditions must occur together, it is difficult to find a community that combines all these characteristics. Strong linkages within and between communities may, in fact, make anti-poaching operations by the communities difficult as community members are less likely to reveal their family members', relatives', neighbors', and friends' illegal activities from which they benefit.¹⁴⁶

Another condition for success for CWM is that revenues accruing from wildlife (whatever the type and amount) must remain in the hands of the community, to be reinvested in wildlife management and to be spent

139. Douglas D. Heckathorn, *The Dynamics and Dilemmas of Collective Action*, 61 AM. SOC. REV. 250, 251 (1996); OSTROM, *supra* note 75, at 6, 32, 241 n.25.

140. See Songorwa, *supra* note 16, at 181.

141. See Barbier, *supra* note 17, at 131.

142. See Clifford S. Russell, *Applications of Public Choice Theory: An Introduction*, in COLLECTIVE DECISION MAKING: APPLICATIONS FROM PUBLIC CHOICE THEORY 1, 3, 13 (Clifford S. Russell ed., 1979).

143. Camilla Toulmin et al., *The Future of Africa's Drylands*, in THE EARTHSCAN READER IN SUSTAINABLE DEVELOPMENT 254, 254 (John Kirkby et al. eds., 1995).

144. See *id.*; Child, *supra* note 59, at 58; Raybourn, *supra* note 44, at 44-45; Little, *supra* note 64, at 360; MURPHREE, *supra* note 20, at 5-7; LIVING WITH WILDLIFE, *supra* note 17, at 1, 157-58.

145. See Murphree, *supra* notes 46, at 175; MURPHREE, *supra* note 81, at 7-8; Metcalfe, *supra* note 73, at 163, 169-71.

146. See Songorwa, *supra* note 16, at 183; Gibson & Marks, *supra* note 46, at 948.

on community development projects. The revenues must reach the majority of community members in an open, easily understood, and straightforward manner.¹⁴⁷ Together with financing community projects, it is crucial that program benefits reach individual households and their members because the costs of wildlife conservation extend "to personal jeopardy."¹⁴⁸ But, the increase of human populations in program areas means smaller dividends to households and, thus, lower incentive for them, and their members, to participate in the programs. For instance, the fast growing human population in Zimbabwe (increasing at 3.5 percent per annum), particularly in some CAMPFIRE program areas, and the government's resettlement schemes threaten the program.¹⁴⁹ Also, immigration is likely to increase heterogeneity and conflicts in the relevant communities.¹⁵⁰

Instead of devolving authority and responsibility to communities, some CWM programs create new layers of bureaucracy that are too big for the communities to manage and do not serve the interests of member communities.¹⁵¹ For instance, the SCP in Tanzania advised 19 communities to form a cooperative society (an NGO) and called it *Jumuiya ya Kuhifadhi Maliasili Ukutu* (JUKUMU) in Kiswahili.¹⁵² The formation of JUKUMU was going to force the 19 communities to cooperate in a larger project with a cadre of managers.¹⁵³ But experience shows that small community organizations are more appropriate for social organization, institutional management, and continued commitment.¹⁵⁴ Also, community participation creates intra- and/or inter-community conflicts¹⁵⁵ and may increase those that already exist.¹⁵⁶ Although some people believe that community-based programs limit conflicts,¹⁵⁷ many CWM programs have experienced serious problems as a result of these "intracommunity tensions, political dynamics, needs and aspirations."¹⁵⁸

147. See Barrow et al., *supra* note 117, at 23.

148. Murphree, *supra* note 46, at 168.

149. See Hill, *supra* note 33, at 112-13.

150. See Little, *supra* note 64, at 357-58; Strum, *supra* note 50, at 514; Murphree, *supra* note 30, at 418-20.

151. See Gibson & Marks, *supra* note 46, at 942.

152. See Songorwa, *supra* note 16, at 141.

153. See *id.* at 204.

154. See Derman, *supra* note 42, at 209-11.

155. See Jules Pretty et al., *Regenerating Agriculture: The Agroecology of Low-External Input and Community-Based Development*, in THE EARTHSCAN READER IN SUSTAINABLE DEVELOPMENT, *supra* note 143, at 125, 137; LIVING WITH WILDLIFE, *supra* note 17, at 32.

156. See FRIEDMANN, *supra* note 28, at 147-49 n.7; Strum, *supra* note 50, at 514-15.

157. See Sibanda, *supra* note 28, at 121-22; Strum, *supra* note 50, at 514-16.

158. LIEBENBERG & GROSSMAN, *supra* note 5, at 6.

Lastly, many times it has been stated that at the community level in poor countries people's basic needs are immediate.¹⁵⁹ Because they are caught in a poverty trap, survival is their main concern.¹⁶⁰ In fact, some consider improvement of their livelihoods and development unattainable and regard "the debate on endangered species as a luxury they cannot afford."¹⁶¹ It is, therefore, unlikely for a community with all or the majority of its households existing in such a volatile situation to have long-term plans and a clear vision of the future. Where a community happens to have a vision it is in terms of access to basic needs and not in terms of wildlife conservation. If they know what they need and have a vision regarding wildlife, it is to one day have all crop raiding and dangerous species eliminated or relocated to places far from their settlements and farms. This is one of their basic needs, which then raises the question of whether they have any "positive" vision regarding wildlife conservation.

C. Communities Have the Required Wildlife Knowledge and Capability to Manage Wildlife

Proponents of CWM claim to have discovered that local communities in wildlife areas have the knowledge required for wildlife management.¹⁶² What is referred to here is "traditional" knowledge, knowledge that has been acquired through long-term observation of ecosystems in which the communities live,¹⁶³ and that has been handed down over generations, as opposed to "local" knowledge, which may have been acquired recently even by immigrants and government employees.¹⁶⁴ Therefore, wildlife knowledge is here perceived to be an inherent part of a culture or lifestyle.

Some proponents of CWM have argued that both traditional and scientific knowledge involve the same scientific reasoning,¹⁶⁵ and that conservationists, states, and their agencies charged with wildlife management should respect, learn, and utilize both forms of knowledge to achieve

159. See Jeffrey Alwang et al., *Seeking Guidelines for Poverty Reduction in Rural Zambia*, 24 *WORLD DEV.* 1711, 1712-13 (1996); Christopher E. Morrow & Rebecca Watts Hull, *Donor-Initiated Common Pool Resource Institutions: The Case of the Yanasha Forestry Cooperative*, 24 *WORLD DEV.* 1641, 1642 (1996); Hutton et al., *supra* note 48, at 271.

160. See Murphree, *supra* note 46, at 159-60; FRIEDMANN, *supra* note 28, at 55-66.

161. Sibanda, *supra* note 28, at 120.

162. See Gibson & Marks, *supra* note 46, at 944.

163. See Hyndman, *supra* note 21, at 297-98; Raval, *supra* note 9, at 316; *LIVING WITH WILDLIFE*, *supra* note 17, at 25-26.

164. See R. Rivera & G.F. Newkirk, *Power from the People: A Documentation of Non-Governmental Organizations' Experience in Community-Based Coastal Resource Management in the Philippines*, 36 *OCEAN & COASTAL MGMT.* 73, 89 (1997); MORIS, *supra* note 27, at 8-12.

165. See LIEBENBERG & GROSSMAN, *supra* note 5, at 9.

conservation goals.¹⁶⁶ But until recently there was a general consensus among those same conservationists that local communities lacked the knowledge, the will, and the training to undertake sustainable wildlife management.¹⁶⁷

For the communities to use wildlife sustainably, they must possess or be able to access all relevant information. For instance, in order to address appropriation problems associated with allocating hunting quotas, Schlager et al. advise that

resource users must possess information on the size of the population, the population dynamics..., the number of units being harvested, and the effect of each resource user's harvest upon every other resource user's harvests; *and* from this information determine the optimal harvest level. In a CPR [Common-Pool Resource] with mobile flows, flows which often fluctuate unpredictably, such information may be very difficult...to obtain. It is difficult for resource users to accurately assess the extent of variations in flow, to determine whether an observed flow decline is merely temporary or part of a longer-term phenomenon, and to diagnose the cause of the decline.¹⁶⁸

But the communities lack this important scientific and ecological information that could enable them to make informed decisions, especially in setting hunting quotas, because it is not available or because of difficulties in accessing it.¹⁶⁹ For instance, Songorwa quotes a senior staff member of SCP as saying, "Until today we do not know the villagers' consumption [levels]. We have not even carried out a census to know the animals in all these areas, in order to develop a sustainable hunting quota. There are not even good methods of developing the hunting quota."¹⁷⁰

While they are said to have wildlife knowledge, communities recruited into CWM programs "are being trained in [wildlife] management techniques."¹⁷¹ This implies that community members have to be trained by conservationists to be able to undertake wildlife management. But if, as proponents of CWM claim, wildlife knowledge exists in the communities,

166. See Brosius et al., *supra* note 43, at 158-59; Durbin & Ralambo, *supra* note 54, at 116, 118; Raval, *supra* note 9, at 316.

167. See IIED, *supra* note 2, at 11-13, 55; Berkes & Farvar, *supra* note 78, at 3-5.

168. Edella Schlager et al., *Mobile Flows, Storage and Self-Organized Institutions for Governing Common-Pool Resources*, 70 LAND ECON. 294, 297 (1994).

169. See Siachoono, *supra* note 10, at 248; IIED, *supra* note 2, at 29-32.

170. Songorwa, *supra* note 16, at 301.

171. FITTER, *supra* note 26, at 173.

and if they respect, value, and honor it, there is no need to train community members in something they already know.

Some proponents of CWM urge program implementers "to rely to the extent possible on existing traditional institutions."¹⁷² But for over a century the communities were ordered by conservationists, through the respective governments, to keep their hands off wildlife. For over a century their knowledge, if they had any, was not properly regarded, if regarded at all.¹⁷³ As if that were not enough, during that period many communities were forcibly relocated to give way to wildlife—"the common heritage of mankind" (*sic*) as Timberlake calls it.¹⁷⁴ Also, they were intimidated, harassed, beaten, jailed, and even shot and killed in the name of wildlife protection. As a result of forced relocations people became detached from their ancestral lands and their land-based cultures and eventually lost their traditional institutions and whatever wildlife knowledge they had accumulated.

Traditional knowledge is not taught in classrooms, neither is it written or preserved on video or audio tapes or CD-roms. In a traditional system of learning there are no libraries or archives from which the knowledge can easily be retrieved. In this way of life any acquired knowledge is passed from one generation to another through tales, observation, and mainly through practice—behaviors, actions, dances, songs, and rituals. Because it is not written and because for many generations since the first colonial governments the people were brainwashed and forced to believe that their systems of governance, cultures, and knowledge were primitive, worthless and something to be ashamed of, and as they were forced out of their "traditional business," there has been a big loss of whatever knowledge they had accumulated—gone with the generations that have passed.¹⁷⁵ In Tanzania, for instance, traditional leadership was banned at independence and, with the exception of a few pockets, has almost disappeared.¹⁷⁶

In any learning system, childhood is the crucial learning period.¹⁷⁷ In the traditional system children learned by doing through interaction with their older brothers and sisters, playmates, parents, other family members, and neighbors. They learned when tending the family cattle herds, when helping parents to cut building poles or ropes, when collecting

172. LIVING WITH WILDLIFE, *supra* note 17, at 25.

173. See LIEBENBERG & GROSSMAN, *supra* note 5, at 9-10; Balakrishnan & Ndhlovu, *supra* note 131, at 135; Berkes & Farvar, *supra* note 78, at 3.

174. LLOYD TIMBERLAKE, AFRICA IN CRISIS: THE CAUSES, THE CURES OF ENVIRONMENTAL BANKRUPTCY 154 (1985).

175. See Songorwa, *supra* note 16, at 58-59.

176. See *id.* at 59.

177. See Zimmerman, *supra* note 48, at 206-07.

firewood in the bush, and when hunting. But with the introduction of formal education, and by making primary education compulsory, the period for children to learn traditional knowledge has been shortened¹⁷⁸ and, in many cases, eliminated altogether. A child would begin to accompany adults, or older siblings, to the bush at around age five. But now, from that age he/she has to be enrolled in school. After completing primary education, nowadays many of those who do not proceed to secondary school, especially boys, migrate to urban areas to set up petty businesses or search for jobs. They do not get enough time to learn the traditional knowledge, and when they are adults they do not have much traditional knowledge to pass on to the younger generations. Furthermore, the younger generations tend to regard any traditional knowledge as outdated.

Knowledge is not something static. Rather, it evolves through time as people become exposed to new and more challenging problems and learn new and better ways of resolving those problems.¹⁷⁹ The people's long alienation from their ancestral lands and from the wildlife, and their change of role from lawful users to criminals (poachers) for over a century means they have been disconnected from (or have lacked exposure to) the continually evolving wildlife management problems. Most of the wildlife knowledge their ancestors had has been lost already. Songorwa reports that some community members participating in SCP admitted that without this program they, and their children, would not even have known some wildlife species.¹⁸⁰ Unlike the situation prior to Operation Uhai and the program, now the animals came close to their farms and settlements.¹⁸¹ As a result they became tourists in their own homelands because they were in the process of (re)learning about those animals.

Where traditional wildlife knowledge exists, it is outdated and of less use in current situations. If the communities have to manage wildlife they require intensive training and access to reliable ecological information. But training community members alone may not bring much benefit to

178. See Britta Antonsson-Ogle, *Wild Plant Resources: Another Form of Food Security*, 17 CERES 38, 40 (1984).

179. See THOMAS S. KUHN, *THE STRUCTURE OF SCIENTIFIC REVOLUTIONS* 66-76 (3d ed. 1996).

180. See Songorwa, *supra* note 16, at 226.

181. In Tanzania, the poaching problem became so serious that in June 1989 the government launched a nation-wide special anti-poaching operation and nicknamed it Operation Uhai ("Uhai" is a Kiswahili word for life). *See id.* at 98. Operation Uhai continued until March 1991 and succeeded in halting the wave of poaching, at least for a while. *See id.* at 99. Therefore, the increase of wildlife, or its return to settled areas, may not have been a result of the CWM component of SCP. It may have been a result of Operation Uhai, improved anti-poaching operation by Game Scouts in Selous Game Reserve, and/or the ban by CITES on international trade in ivory. *See id.* at 220.

CWM programs in terms of addressing internal (social and institutional) and external (economic, political and social) problems related to wildlife management. There is, therefore, no guarantee that training will enable the communities to manage wildlife sustainably in the current, increasingly complex and uncertain situation.

CWM programs have explicitly stated that they aspire to change rural people's behaviors and reduce poaching in the areas where it occurred.¹⁸² To control poaching, a community and its government (formal or traditional) have to introduce rules of behavior that both residents and non-residents respect. These rules must be internalized within existing frameworks and attitudes. This has so far proven to be a difficult task. For instance, in ADMADE,¹⁸³ CAMPFIRE,¹⁸⁴ and some SCP areas poachers reacted by changing their hunting techniques from shooting to snaring.¹⁸⁵ In many CWM programs there have been reports of the continuation, re-appearance, and even increase of this illegal activity.¹⁸⁶

The literature refers to traditional wildlife harvesting regimes, which existed in hunter-gatherer societies.¹⁸⁷ These traditional societies changed harvesting techniques depending on seasons and availability of the huntable species. But the regimes did not involve active wildlife management as such. Nevertheless, traditional systems of wildlife harvesting in Africa have declined significantly.¹⁸⁸ Wildlife harvesting by these communities in the past is seen to have been sustainable only because human populations were small, scattered, and with temporary or semi-permanent settlements. Also, their harvesting technologies were inefficient.¹⁸⁹ That means there was more supply of wildlife than the demand and, therefore, there was always a surplus.

As stated earlier, the literature refers also to "discovered" CPR regimes. However, in each of these cases a regime evolved where the people were directly dependent on the resource(s) for their survival.¹⁹⁰ This

182. See, e.g., Songorwa, *supra* note 16, at 99, 120-22 (for SCP); Gibson & Marks, *supra* note 46, at 945-51 (for ADMADE); Siachoono, *supra* note 10, at 249 (for ADMADE).

183. See Gibson & Marks, *supra* note 46, at 951.

184. See Metcalfe, *supra* note 73, at 186.

185. See Songorwa, *supra* note 16, at 220.

186. See *id.* at 218-20; Kelso, *supra* note 33, at 52-53.

187. See Berkes & Farvar, *supra* note 78, at 8-9; IIED, *supra* note 2, at 12, 14-15.

188. See Christopher J.N. Gibbs & Daniel W. Bromley, *Institutional Arrangements for Management of Rural Resources: Common-Property Regimes*, in COMMON PROPERTY RESOURCES: ECOLOGY AND COMMUNITY-BASED SUSTAINABLE DEVELOPMENT, *supra*, note 9, at 22, 28-29.

189. See Physick, *supra* note 37, at 85; Lado, *supra* note 121, at 173; MORIS, *supra* note 27, at 4-5.

190. See e.g., Mark Poffenberger, *The Resurgence of Community Forest Management in Eastern India*, in NATURAL CONNECTIONS: PERSPECTIVES IN COMMUNITY-BASED CONSERVATION, *supra* note 3, at 53; Charles Zerner, *Transforming Customary Law and Coastal*

leads us to three important questions: Does the survival of rural communities in Africa depend on the crop-raiding elephants and killer lions? Is such wildlife a resource to those communities? Can a "traditional" regime evolve to conserve such animals?

A further explanation for the inability of the communities to manage wildlife is that the current wildlife conservation problems such as poaching and habitat destruction have most of their sources outside the communities and, therefore, there is little those communities can do to control them.¹⁹¹

The process of institutional development at the community level is arduous and slow, often longer than the period required or estimated for the implementation of a community-based program.¹⁹² It is unlikely, therefore, for a community participating in CWM to become self-sustaining, institutionally or financially, by the end of external funding and supervision. It has been observed in many agricultural projects that technologies are adopted only under close supervision of external officials, the departure of whom often signifies the end of effective use of that technology.¹⁹³ CWM programs bear similarities with these projects because it is these same rural communities, households, and individuals who are expected to implement them. Therefore, as both Barnes and the IIED conclude, there is no guarantee of significant impact by participatory approaches.¹⁹⁴

Like all communities, rural communities, however small they may be, are faced with internal conflicts. Conflicts also exist between neighboring communities. For instance, Songorwa reports conflicts between village wildlife management committees and the respective village governments in almost all communities participating in the SCP, and also between neighboring communities (between participating communities themselves and between those participating and those not participating).¹⁹⁵ As the size

Management Practices in the Maluku Islands, Indonesia, 1870-1992, in NATURAL CONNECTIONS: PERSPECTIVES IN COMMUNITY-BASED CONSERVATION, *supra* note 3, at 80; OSTROM, *supra* note 75, at 61-69, 82-88; FITTER, *supra* note 26, at 172.

191. See A.H. Harcourt, *Is the Gorilla a Threatened Species? How Should We Judge?*, 75 BIOLOGICAL CONSERVATION 165, 167-69 (1996); LIEBENBERG & GROSSMAN, *supra* note 5, at 1-4, 8-9; Schlager et al., *supra* note 168, at 298.

192. See LIEBENBERG & GROSSMAN, *supra* note 5, at 8; Morrow & Hull, *supra* note 159, 1653-55; Barrow et al., *supra* note 14, at 256; IIED, *supra* note 2, at 57; Little, *supra* note 64, at 353, 369; Strum, *supra* note 50, at 512; WELLS ET AL., *supra* note 1, at 42-47; EDWARD J. BLAKELY, PLANNING LOCAL ECONOMIC DEVELOPMENT: THEORY AND PRACTICE 64-82 (2d ed. 1989); MORIS, *supra* note 27, at 33-34; ARTURO ISRAEL, INSTITUTIONAL DEVELOPMENT: INCENTIVES TO PERFORMANCE 13-14 (1987).

193. See Pretty et al., *supra* note 155, at 130, 138.

194. See Barnes, *supra* note 51, at 800-01; IIED, *supra* note 2, at 58-59.

195. See Songorwa, *supra* note 16, at 195-96.

of a community increases, heterogeneity increases and so too do the intra- and inter-community conflicts.¹⁹⁶ Common property regimes are not expected to emerge easily in heterogeneous communities.¹⁹⁷

The notion that in rural communities people still do things communally and, therefore, the participatory approach is likely to succeed may also be ill-conceived because socio-economic changes now occurring around the continent favor individualization. In many rural communities people are slowly losing the sense of community. Moorehead states, for instance, that "[o]n a more general level the customary social and economic ties that bound communities together are becoming weaker."¹⁹⁸ The stress on creating community-level institutions to manage wildlife runs counter to these individualizing forces.

Lastly, there is now a widespread understanding that, in their role as managers of natural resources, women are the backbone of development activities.¹⁹⁹ In the course of their activities they come in regular contact with wildlife and, in fact, those activities are affected by wildlife.²⁰⁰ Women have a key influence on the quality of the environment.²⁰¹ Also, they have a wealth of local (not traditional) knowledge to build on concerning local environments and the constraints and opportunities they present. But rural development programs, from which CWM has borrowed its principles, are said to have never been gender neutral, due to the fact that women have had less access to social (education, health, decision-making) and economic (income) power bases and information.²⁰² Songorwa reports to have found

196. See Barrow et al., *supra* note 117, at 21-22; Little, *supra* note 64, at 357-58; Strum, *supra* note 50, at 514-15; Murphree, *supra* note 30, at 414.

197. See Pretty et al., *supra* note 155, at 135-38; Steven W. Lawry, *Structural Adjustment and Natural Resources in Sub-Saharan Africa: The Role of Tenure Reform*, 7 SOC'Y & NAT. RESOURCES 383, 385 (1994).

198. Richard Moorehead, *Changes Taking Place in Common-Property Resource Management in the Inland Niger Delta of Mali*, in COMMON PROPERTY RESOURCES: ECOLOGY AND COMMUNITY-BASED SUSTAINABLE DEVELOPMENT, *supra* note 9, at 256, 259.

199. See Janet N. Abramovitz, *Biodiversity and Gender Issues: Recognizing Common Ground*, in FEMINIST PERSPECTIVES ON SUSTAINABLE DEVELOPMENT 198, 198, 200-03, 206 (Wendy Harcourt ed., 1994); Sabine Häusler, *Women and the Politics of Sustainable Development*, in FEMINIST PERSPECTIVES ON SUSTAINABLE DEVELOPMENT 145, 149 (Wendy Harcourt ed., 1994); Little, *supra* note 64, at 357-58.

200. See LIVING WITH WILDLIFE, *supra* note 17, at 9.

201. See Dharam Ghai, *Environment, Livelihood and Empowerment*, in DEVELOPMENT AND ENVIRONMENT: SUSTAINING PEOPLE AND NATURE 1, 5 (Dharam Ghai ed., 1994); Kathy M. Higgins & Albert Mazula, *Community Development: A National Strategy in Zimbabwe*, 28 COMMUNITY DEV. J. 19, 21 (1993); THE EARTH SUMMIT: THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT 407-10 (Stanley P. Johnson ed., 1993) [hereinafter EARTH SUMMIT].

202. See FRIEDMANN, *supra* note 28, 107-19.

little participation by women in the SCP.²⁰³ In their study of Masoka community in the CAMPFIRE program, Nabane and Matzke also found that only three percent of the community-members who reported engagement in CAMPFIRE-related employment were women.²⁰⁴ Also, the two found no women on the CAMPFIRE wildlife committee. Such gender insensitivity is believed to contribute to failures of many rural programs and projects.²⁰⁵

D. Wildlife Conservation and Community Development Are Compatible

The CWM approach intends to reconcile wildlife conservation and rural development.²⁰⁶ Two main outcomes are expected from the reconciliation: conservationists expect to achieve conservation goals, and the rural communities expect to realize development.²⁰⁷ The sort of development that proponents of CWM have in mind for the communities is often referred to as sustainable community development, which has been defined as "a community-based approach to development which relies on self-help, community economic development and ecological principles."²⁰⁸ However, CWM focuses on the socio-economic well-being of the communities and households and individuals in those communities, especially on increasing their incomes. For instance, referring to the CAMPFIRE program, Kiss argues, "[w]ildlife has proved to be a powerful agent for economic development," and CWM can help build rural economies.²⁰⁹ Having roots in the *Basic Needs* approach to development, CWM seeks to maximize use and control of local resources by the communities.²¹⁰

It is argued that programs implemented in rural areas in poor countries must be integrated and must be able to deliver both short-term and long-term benefits to communities.²¹¹ Expected short-term benefits from CWM programs are mostly socio-economic and tangible, for instance,

203. See Songorwa, *supra* note 16, at 233-42.

204. See Nabane & Matzke, *supra* note 3, at 526.

205. See IIED, *supra* note 2, at 24-25, 57.

206. See Murphree, *supra* note 46, at 164; Barbier, *supra* note 17, at 105; LIVING WITH WILDLIFE, *supra* note 17, at 13-15.

207. See Barrett & Grizzle, *supra* note 8, at 27-28, 30, 41; Sibanda, *supra* note 28, at 118-21; Gibson & Marks, *supra* note 46, at 944-45, 947; LIEBENBERG & GROSSMAN, *supra* note 5, at 11; Little, *supra* note 64, at 350-54; J. Fourie, *The Concept of Life: On the Social Role of Conservation Areas*, 34 KOEDOE 157, 158-60, 164 (1994); LIVING WITH WILDLIFE, *supra* note 17, at 5-8, 14-15.

208. MARCIA NOZICK, NO PLACE LIKE HOME: BUILDING SUSTAINABLE COMMUNITIES 10 (1992).

209. LIVING WITH WILDLIFE, *supra* note 17, at 170.

210. See RATNER & IDE, *supra* note 76, at 4-9.

211. See EARTH SUMMIT, *supra* note 201, at 146-49.

health clinics, hospital drugs, school buildings, roads, cash dividends, and even food.²¹² CWM programs have to deliver these short-term, tangible benefits, because at the household level they act as incentives for people to participate fully in the programs.²¹³ The households and their members have to be given these incentives so that they can stop destroying wildlife and its habitats. "Putting the farmers first is, in brief, the formula for successfully linking wildlife conservation and sustainable rural development in Africa," declares Murphree.²¹⁴

Goals and planning for CWM, especially in non-buffer zone programs, have been largely oriented toward business interests and community economic growth.²¹⁵ But if CWM is measured foremost in terms of cash flows to communities, households and individuals,²¹⁶ the approach introduces the communities to market-led development, a form of development over which they will have no control. This type of development is controlled by increasingly globalized supply and demand, prices of goods and services, and big economic players.

Proponents of non-buffer zone CWM want economic development for the communities to come first.²¹⁷ But this has not happened. For instance, Metcalfe reveals that Nyaminyami district in Zimbabwe "spent too high a percentage of its revenue on management, resulting in a smaller community benefit."²¹⁸ Also, the question remains whether improving rural people's incomes does lead to an improvement in attitudes to wildlife, and whether CWM programs can generate enough income to replace the ecologically "damaging," but economically rewarding, activities such as poaching.

Also, the "marriage" between wildlife conservation and rural socio-economic development can be hampered by differences in perceptions of CWM goals between proponents of the approach and community members. Generally, the former perceive CWM programs as mainly conservation programs while the latter (and politicians) may perceive them as development-oriented, and be interested more, or even only, in

212. See Murphree, *supra* note 46, at 168-74.

213. See Michael Redclift & Colin Sage, *Introduction*, in STRATEGIES FOR SUSTAINABLE DEVELOPMENT: LOCAL AGENDAS FOR THE SOUTHERN HEMISPHERE 1, 9-10 (Michael Redclift & Colin Sage eds., 1994); Antoon De Vos, *Wildlife Utilization on Marginal Lands in Developing Countries*, in WILDLIFE PRODUCTION: CONSERVATION AND SUSTAINABLE DEVELOPMENT 8, 8-10 (Lyle A. Renecker & Robert J. Hudson eds., 1991).

214. Murphree, *supra* note 46, at 167.

215. See *id.* Economic growth is defined as a sustained increase either in the real per capita income or in real total income...." KWANG CHOI, THEORIES OF COMPARATIVE ECONOMIC GROWTH 7 (1983).

216. See Murphree, *supra* note 46, 167-70; Metcalfe, *supra* note 73, at 182, 190.

217. See Murphree, *supra* note 46, at 166-67.

218. Metcalfe, *supra* note 73, at 179.

generating economic and social benefits rather than conserving or protecting the wildlife.²¹⁹ Songorwa reveals that many Village Scouts and committee members (and many ordinary villagers) in the SCP did not understand what the program was all about.²²⁰ Program staff members also believed the villagers understood the program to be about their development: "They think that this is a source of income;" "At this stage many of them know that this program is for them to get meat, that is all;" and "Many think it is a cropping program. I mean they don't know the objectives of the program."²²¹ The stronger the difference in goals between the two sides, the fiercer the conflicts between them and the weaker the community members' interest and participation in activities geared toward wildlife conservation.

Conservationists and state wildlife authorities would like to bring as much land area as possible under protected area management because, from an ecological perspective, the more and bigger the protected areas, the better.²²² This is enough reason for suspicion on the part of rural communities for they do not want to see protected areas established that restrict their use of the land.²²³ For instance, Songorwa found that the SCP alienated further the participating communities from land and wildlife.²²⁴ Before the program, villagers opened farms wherever they wished. That means they had easy or even unlimited access to land in their areas. But after the village lands were zoned through the program, the villagers could only cultivate in the areas set aside for agriculture. It is unquestionable, therefore, that the program reduced their access to land. Figures for SCP show that 64 percent and 35 percent of village lands in two of the areas it operates have been zoned for wildlife management.²²⁵ These lands are now out of reach of the farmers, whose numbers are increasing. However, this plan is opposed by many communities. In his progress report for village land-use survey work in October 1995, a surveyor in one of the program areas stated that the villagers frustrated the exercise fearing loss of their agricultural lands. From his study in Mumbwa Game Management

219. See Western, *supra* note 9, at 31-36; WELLS ET AL., *supra* note 1, at 1-2, 42-47. The interest in making quick profit from wildlife on the part of the communities may emanate from the many uncertainties associated with it.

220. See Songorwa, *supra* note 16, 198-202.

221. *Id.* at 201.

222. See Krishna B. Ghimire, *Parks and People: Livelihood Issues in National Parks Management in Thailand and Madagascar*, in DEVELOPMENT AND ENVIRONMENT: SUSTAINING PEOPLE AND NATURE, *supra* note 201, at 195, 197; IIED, *supra* note 2, 11-12; Salafsky, *supra* note 25, at 456.

223. See Barrett & Grizzle, *supra* note 8, at 27; Western, *supra* note 9, at 23, 25-26.

224. See Songorwa, *supra* note 16, at 194-95.

225. See UNITED REPUBLIC OF TANZANIA, DEP'T OF WILDLIFE, SELOUS GAME RESERVE GENERAL MANAGEMENT PLAN 134-45 annex O (1995).

Area—one of ADMADE Program Areas—Siachoono also reveals, regarding local communities, that “[i]f left to themselves they probably would use the GMA land for subsistence agriculture and livestock grazing.”²²⁶

Because they are often established as a reaction to declining wildlife populations,²²⁷ CWM programs are expected and required to show immediate positive ecological impacts. But, as we said earlier, changing people’s attitudes takes time, which, in this case, “may be the scarcest commodity of all.”²²⁸ If it takes two or more decades to change local people’s attitudes and behavior, there is no guarantee that by the time their behavior has substantially changed there will still be wildlife to be managed. There is also a possibility that people’s behavior will not change or that the change will be only temporary, in which case wildlife will not be managed sustainably.

How to achieve both wildlife conservation and community economic development at the same time is a big challenge left to those implementing CWM programs.²²⁹ The communities’ desire for rapid economic and social progress, combined with the use of wildlife for commercial purposes, may lead them to over-exploit the wildlife.²³⁰ Even where the communities are small and fenced (like the situation in some CAMPFIRE program areas), improved standards of living mean higher demands for goods and services supplied by local natural resources.²³¹ A static or even declining population can still cause environmental degradation if the level of consumption of environmental goods and services increases.²³² Also, The Ecologist cautions that “[o]nce...direct interest [in protecting the surrounding environment] is removed—once members of the community look outside the commons for their sustenance and social standing—the cultural checks and balances that limit potential abuses of the environment are rendered increasingly ineffective.”²³³

226. Siachoono, *supra* note 10, at 248.

227. See IIED, *supra* note 2, at 56-57.

228. Seymour, *supra* note 73, at 472.

229. See Lado, *supra* note 121, at 182-84.

230. See Western, *supra* note 49, at 502.

231. See JUDITH REES, *NATURAL RESOURCES: ALLOCATION, ECONOMICS AND POLICY* 256 (2d ed. 1990); Janice Schnake Greene, *The Role of Population Education in Wildlife Management: Activities and Methods*, in *INTEGRATING PEOPLE AND WILDLIFE FOR A SUSTAINABLE FUTURE*, *supra* note 14, at 95, 95.

232. See REES, *supra* note 231, at 256. See also MOULTON & SANDERSON, *supra* note 132, at 342-44; Muth & Bowe, *supra* note 7, at 10 (for the recent increase of poaching activities in the United States).

233. The Ecologist, *The Commons: Where the Community Has Authority*, in *THE EARTHSCAN READER IN SUSTAINABLE DEVELOPMENT*, *supra* note 143, at 227, 234.

Perhaps with careful planning market-led economic development could protect wildlife. But it is economic development that wiped out much of the wildlife in Europe and North America, and many other places on this planet.²³⁴ Therefore, the conservation of wildlife requires not only limiting the growth of local communities, but also limiting their consumption levels.²³⁵ Implicitly, this means putting limits on community development, in a "material" sense.

Barrett and Arcese give some reasons why CWM programs cannot become economically sustainable.²³⁶ Their reasons are that provision of game meat and cash to the communities will not make them stop their traditional hunting practices, that the programs are likely to increase local demand for game meat, and that there are shortcomings regarding revenue-sharing arrangements. Other reasons are that increased competition in marketing wildlife and its products is likely to bring down prices, that tourism is unlikely to deliver net benefits for the local communities, that few wildlife/protected areas in Africa attract a number of tourists big enough to cover costs, and that the CWM programs threaten household food security in the communities. They explain that CWM programs create only a handful of jobs, which are likely to end once donor support is withdrawn, and argue that the development component of these programs is tedious and likely to fail, and that the host governments are unlikely to support the programs, especially financially, when donor funding dries out. This account of lurking problems sparked the strong attack from the proponents' camp (see section one), but, so far, proponents have failed to explain how CWM programs will avoid or mitigate these problems.

The CWM approach stresses the need for communities to receive an equitable share of revenues or benefits generated from wildlife to compensate them for the costs of living with wildlife. But the SCP denies many community members "free" and unlimited access to game meat.²³⁷ Also, because of increasing crop damage, it is going to take time for the program to succeed. Songorwa quotes one program staff member as saying, "If one loses two acres and you go and tell him [or her] to conserve the same animals he [or she] will not understand you and especially when the only benefit he [or she] receives is one kilogram of meat."²³⁸ In the Zambian and Zimbabwean programs and projects the story is the same: the intended communities did not receive the revenues initially promised, or did not receive any at all. For instance, the Development Dialogue of

234. See Kelso, *supra* note 33, at 52.

235. See LIEBENBERG & GROSSMAN, *supra* note 5, at 4-5.

236. See Barrett & Arcese, *supra* note 8, at 1077-80.

237. See Songorwa, *supra* note 16, at 195.

238. *Id.* at 284.

Oct./Nov.1993 criticized ADMADE for "having an adverse effect on the livelihood of villagers, by denying them access to game meat, their major source of protein, and imposing levies that they cannot afford."²³⁹ The program had not been able to distribute revenues effectively.²⁴⁰ Even village scouts had to work for up to six months without pay.²⁴¹

In the manner of ADMADE, neither did the LIRD's benefits always reach the "target" communities.²⁴² Also, the communities were dissatisfied with the prices of game meat from the program's culling scheme.²⁴³ ZWP is also said to have failed to address the real community needs and existing resource problems.²⁴⁴

Regarding CAMPFIRE, Derman quotes Murombedzi reporting that the main beneficiaries of wildlife, especially in Omay Communal Land, continued to be safari companies and operators.²⁴⁵ This should not come as a surprise because other studies have also shown that a considerable amount of tourism revenue returns directly to the tourist-generating countries through payment of loans and dividends of foreign investment, the importation of goods and services related to the business, and the salaries of senior personnel who are often expatriates.²⁴⁶

The CWM programs, and the communities in particular, cannot control the growth of human populations. As a result, new farmers open farms in areas occupied by wildlife.²⁴⁷ For instance, reported economic success in some areas of the CAMPFIRE program such as Masoka/Kanyurira ward has put the program in danger ecologically, as many people who had emigrated earlier returned, raising the total number of households to 123 in 1995 from only 60 in 1988.²⁴⁸

Lastly, the description of CWM given above gives the impression that its focus is more on human concerns than wildlife conservation. This has recently been the concern of some "biologist-conservationists."²⁴⁹ But real success for CWM "is measured in terms of ecological objectives, such as reduced poaching or increased [wildlife] populations."²⁵⁰ This is problematic because, as discussed above, the increase of wildlife populations,

239. IIED, *supra* note 2, at 35-36.

240. See Letter from A. Pilegaard to Ms. Hoffman, *supra* note 99, at 2.

241. See Gibson & Marks, *supra* note 46, at 951; IIED, *supra* note 2, 84.

242. See IIED, *supra* note 2, at 36, 81-82.

243. See Balakrishnan & Ndhlovu, *supra* note 131, at 137-38, 140-41.

244. See IIED, *supra* note 2, at 85.

245. See Derman, *supra* note 42, at 208.

246. See PETER E. MURPHY, TOURISM: A COMMUNITY APPROACH 31 (1985).

247. See Metcalfe, *supra* note 73, at 179, 184; Lado, *supra* note 121, at 174, 180-82.

248. See Murphree, *supra* note 46, at 172; Metcalfe, *supra* note 73, at 179.

249. See Guha, *supra* note 47, at 15-16.

250. LIVING WITH WILDLIFE, *supra* note 17, at 2.

especially where there are no effective barriers, often leads to increased crop-raiding, predation, and loss of lives, which may further increase the problems of securing a sustainable livelihood for the communities.

IV. SUMMARY AND CONCLUSION

The aim of CWM—to address the failures of the fences-and-fines approach—is laudable. But is this new approach feasible and more effective than the fences-and-fines approach? Two main factors make CWM unimplementable in Africa. First and foremost, the approach is a result of an external demand. Experience has often shown that when demands at the international level are passed on to national and local levels to solve problems they become non-operational.²⁵¹

Second, the main assumptions underlying it—governments are willing to devolve ownership and management responsibilities for wildlife to local communities, rural communities are willing to participate in wildlife management, communities have the capability to manage the wildlife in a sustainable way, and wildlife conservation and community economic development are compatible—are problematic.

A CWM program can be successful “under the right conditions,” which, unfortunately, “may not be found everywhere.”²⁵² Although some success has been reported from some programs and projects, all have faced many problems as a result of the problematic nature of the assumptions underlying the approach. The problems include lack of motivated staff, conflicts between local and expatriate program staff, unsatisfactory links to government structures and government support, failure to adopt the intended participatory approach, and inability to meet the basic needs of the communities and raise interest among community members—all of which may be associated with a lack of comprehension of intra-community tensions, needs, and aspirations. As with the fences-and-fines approach, there is failure to stop or at least reduce poaching; and failure to reconcile wildlife conservation and rural development. The problematic nature of the assumptions relates to the discrepancy between what can be seen as political, economic, socio-cultural, geophysical, and ecological conditions that are required “to make CWM work” and the actual conditions.

Experience shows that it is difficult, first, to get the governments to genuinely accept and adopt the participatory approach and to change their exclusionary policies and legislation and move ownership (or even user) rights and control over lands and wildlife to the communities. It is also difficult to secure support and commitment from all state organs and

251. See Morrow & Hull, *supra* note 159, at 1653-55.

252. Murphree, *supra* note 46, at 174.

at all levels, and to adopt an integrated approach between agencies and between different levels of the same agency. Individual government actors (the wildlife managers/officers) often hold different views than those held by proponents of CWM. Few believe that the fences-and-fines approach has failed to protect wildlife and needs to be abandoned.

Second, it is difficult to change community attitudes toward wildlife and raise substantial and long-term interest in conservation among them. This is the case especially in situations where there are many uncertainties associated with wildlife and its market, and where many of the species to be conserved are at the same time perceived as enemies of the people—damaging crops on which the communities' economies depend, injuring and killing people, and thus sinking them deeper into poverty. CWM is expected to succeed only in areas with big populations of wildlife, big unsettled and uncultivated lands, and small, economically less stratified human populations. Large wildlife populations mean big conservation costs to the communities. Also, bigger communities imply increased stratification and smaller program benefits to households and individuals—a disincentive for them to participate.

Given the tendency of people in a (large) group setting to "free-ride," the fact that most wildlife revenues go to hunting and tourist companies, and that local elites reap most of the small percentage destined for the communities, community members are discouraged from participating in CWM programs. Not surprisingly, even where at least the "official" program focus is on people's welfare, still a bigger proportion of the little revenues reaching the communities is used for wildlife protection and management. Also, there is a high element of altruism in CWM. But with the integration of communities into the global economy, even in the most remote communities people are increasingly becoming reluctant to use their personal or individual resources to produce public goods. And because CWM is externally funded and supervised, a sense of ownership of it is seriously lacking.

Third, many contemporary rural communities in Africa have lost their traditional institutions. Where they still exist they are fragmented, weak and/or in conflict with formal institutions. The communities have also lost the wildlife knowledge their ancestors had accumulated before they were ordered to take their hands off wildlife, forcibly relocated from wildlife areas, and made to change roles from legal harvesters of wildlife to criminals. But where the wildlife knowledge still exists, it is useless and irrelevant in terms of the current wildlife conservation problems.

The fences-and-fines approach is now perceived to have failed to protect wildlife in Africa. But its poor performance has been a result of the lucrative market for wild animals and their body parts in affluent countries, declining state budgets for wildlife protection, under-staffing of protected areas, and low morale and wages for those staff. Other reasons include

corruption in government ranks, rising rural populations accompanied by habitat destruction, a weakening of the state, changes in political systems and sometimes violent changes of government, tribal conflicts, and civil wars. Also, it has failed because its focus is on protecting what is inside of protected areas, forgetting what is happening outside their boundaries. Although there is a need to address issues outside of the protected areas to conserve wildlife, CWM does not address, let alone resolve, many of these problems.

Though unlikely, where and if communities manage to become financially sustainable, they may solve the problems of funding and wages for their scouts because wildlife will be "paying its way." They may also solve the problem of under-staffing because each will protect its own area. But they do not have access to required ecological information and are completely unable to address many of the other problems. In short they do not have the required expertise (wildlife knowledge and management skills), experience, or the means to manage wildlife sustainably in the existing, increasingly complex situation.

Fourth, CWM tries to reconcile the unreconcilable. Rural development may be reconciled with conservation of natural resources such as water and forests because these do not cause any harm to the people. In fact, where used properly, they are the ingredients of sustainable development. As pointed out earlier, African wildlife is different. It is a potential resource to be utilized, but at the same time it is the source of the many problems rural communities there are facing. Not surprisingly, some see its elimination as a gain rather than a loss for economic advancement.

Two main outcomes—maintenance of wildlife habitats and preservation of species, and improved socio-economic well-being of the communities—are expected from CWM. But, as stated by proponents of the approach, "success is measured in terms of ecological objectives, such as reduced poaching or increased animal populations."²⁵³ It is hardly possible to increase populations of destructive species and still put the farmers first. Even if wildlife in Africa were not causing problems to local communities, the actual goals of conservationists and those of the communities are different, if not impossible to reconcile. It is unlikely that wildlife management by the communities triggers off economic activities that are compatible with the protection of wildlife. Possibly that is why almost all CWM programs continue to depend on donor funding and there is not a single case of a program that has been reported to be financially sustainable.

The discrepancy between required and prevailing conditions may be difficult to remove. For instance, it is difficult to get the governments to change protectionist wildlife policies and laws. But this has been achieved

253. LIVING WITH WILDLIFE, *supra* note 17, at 2.

to various degrees in countries such as Zimbabwe and Kenya, although in some cases lobbyists had to use "the back door" to achieve their objectives, and in many the changes have been incomplete.²⁵⁴ The process of institution building at the community level and of achieving meaningful participation is difficult and slow, and may take longer than the period estimated for the implementation of a community-based program.

However, some factors cannot be changed. For instance, it is impossible to change the behavior of wildlife species. What can be done in this respect is to restrict the movements and activities of either the community members or wildlife by fencing. Market-led economic development is believed to be led by an invisible hand that controls the demand and supply of goods and services. In the present situation it seems impossible to prevent the integration of rural communities into the wider national and global economies. Striking a balance between wildlife conservation and community economic development also seems an impossible task. Therefore, CWM may work only in some areas and communities, and even then only temporarily.

What are the implications of these findings for the management of CWM programs? According to McCall and Skutsch and Patton and Sawicki, a program's failure may largely be a result of one of two things.²⁵⁵ First is failure or inability of program implementers to implement it as per design.²⁵⁶ Patton and Sawicki call this program failure.²⁵⁷ Sometimes a program can be implemented as designed and still fail. They call this design theory failure, by which they mean failure of the theory to take into account important factors that may influence program outcomes.²⁵⁸ However, it may be difficult to separate program failure caused by "poor" implementation from that caused by the theoretical underpinnings of CWM, because the former can still be a result of lack or loss of commitment by the state and/or its agencies, or the communities, incapability of the communities, and/or incompatibility between wildlife conservation and rural economic development.

Studies reporting the (potential) failure of CWM programs often blame the implementers for such failure, in particular by not adhering to prescribed designs. Seldom have failures been associated with the theoretical underpinnings of CWM. Often, the approach itself has been beyond reproach. But the widespread skepticism and reluctance by African

254. See Western, *supra* note 9, at 30; Metcalfe, *supra* note 73, at 166.

255. See CARL V. PATTON & DAVID S. SAWICKI, BASIC METHODS OF POLICY ANALYSIS AND PLANNING 36, 302 (1986); McCall & Skutsch, *supra* note 83, at 262-67.

256. See PATTON & SAWICKI, *supra* note 255, at 36, 302.

257. See *id.* at 302.

258. See *id.*

governments to commit themselves to the approach is not the fault of implementers of individual programs. Neither can implementers or the design of programs be blamed for the ambivalence shown by some proponents of the approach, the lack of expertise within the communities, the incompatibility between the two elements of the approach, and, to a large extent, the lack of interest shown by the communities.

Another implication of these findings is the need for proponents of CWM to reconsider the assumptions underlying the approach, or the approach itself. As these assumptions are highly problematic, the approach seems unrealistic in most cases, and alternatives (perhaps ideologically less appealing, but more realistic) need to be considered before it is too late. One of these alternatives may be the Community Conservation Services approach. CCS appears to be more realistic as it does not require governments to devolve ownership and management responsibilities for wildlife or communities to actively manage wildlife, but takes into consideration the needs and aspiration of the communities. Alternatively, the fences-and-fines approach could be revisited to see whether it could be made to address poaching more effectively, for instance, by ensuring that the main beneficiaries (tourists and tourist operators) bear the costs of protecting the wildlife.