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INTERNATIONAL FOOD AND RENEWABLE ENERGY PROGRAMS
IN THE SAHEL: THE EFFECT ON IMPLEMENTATION OF
LOCAL INSTITUTIONAL STRUCTURES

INTRODUCTION

I propose to investigate the part local governments ought to play in implementation of internationally-organized attempts to increase production of food and renewable energy resources in the drought-stricken West African Sahel.

Scholars and practitioners agree that four critical public good problems must be resolved if food and energy production goals are to be achieved.¹ They are: (1) forest conservation, (2) range management, (3) bottom land improvement and (4) associated land tenure issues.²

My prior research in a Hausa-speaking area of central Niger persuades me that effective management of international efforts to solve these problems hinges upon the capacity of local communities to mount and maintain various forms of collective action.³ Without such local institutional

¹For a brief discussion of public goods and the related concepts of common property resources and externalities, see Vincent Ostrom, The Intellectual Crisis in American Public Administration, rev. ed. (University, Alabama: University of Alabama Press, 1974), pp. 52-58.

²See the following accounts of conclusions reached at the September, 1977 United Nations Conference on Desertification: "The Fight to Hold Back the Deserts," West Africa, No. 3139 (5 September 1977), 1828; and Boyce Rensberger, "Nomads Are Conspicuously Absent at Desert Talks," New York Times, September 6, 1977.

³James T. Thomson, "Law, Legal Process and Development at the Local Level in Hausa-Speaking Niger: A Trouble Case Analysis of Rural Institutional Inertia" (unpublished Ph.D. dissertation, Department of Political Science, Indiana University, 1976), Chapters II, V and VI.

capability, incentives necessary to encourage individual and group efforts at the rural grass roots are lacking. Absent those incentives, international programs designed to enhance production of food and energy resources and involving the expenditure of literally billions of dollars⁴ will be critically, perhaps fatally, undermined.

Many analysts are quite sensitive to the importance of local institutional patterns.⁵ Yet to date, relatively little research in the Sahel has focused on the relationship between those patterns and capacity to adequately use international assistance in coping with public good problems such as forest conservation, range management and land tenure problems. It is on analysis of this relationship that the proposed research will center.

Field research will be carried out in the Sahelian regions of Niger and Upper Volta. I will concentrate on comparative analysis of village government capacities for collective action in the target areas. I will use essentially a legal methodology to examine the processes of political conflict and conflict-resolution engendered by the public good problems outlined above. Where investigation reveals local collective action capability is inadequate, I will seek to outline feasible alternative policies for overcoming the relevant difficulties which international donors and Sahelian state governments might then adopt. The tradition of formal centralization of government activities which prevails in most French-speaking West African states has been latterly modified by policies designed to promote regionalization of administrative activities. But concerted international cooperation

⁴Robert Trumbull, "5-Year, \$3 Billion Plan will Bolster 7 Sub-Saharan Lands and Cape Verde," New York Times, June 3, 1977.

⁵The Science Associations' Nairobi Seminar on Desertification, August 21-25, 1977, "Statement" (Office of International Science, American Association for the Advancement of Science, Washington, D. C. [multilith]), pp. 1, 8.

among donor countries, organizations, and the Sahelian states will be required if this trend is to be strengthened and extended to the local level, where appropriate, with respect to the problems of forest conservation, range management, bottom land development and related land tenure problems.

PROBLEM

The problem of local government capacity to deal with collective action can be usefully conceived in terms of relationships among law, the legal process and development at the local level. Rural government forms may be viewed as institutional artifacts, created by human beings and subject to modification by them. Institutions are defined as sets of rules which pattern human interactions. Policy analysis will then focus comparatively on consequences of different sets of rules in terms of the ways they hinder or facilitate local capacity to cope with collective good problems, when applied and enforced through particular forms of legal process.

This type of institutional analysis has considerable relevance for the Sahel in light of contemporary events in that region. The area as a whole has been ravaged by a series of severe droughts beginning in 1968 and continuing sporadically up to the present. Many observers now conclude the Saharan desert is spreading into the Sahelian belt so rapidly as to render it unfit for human habitation within the next several decades.

Many of the relevant themes related to the broader topic of drought in the Sahel and its causes are presented in two volumes edited by Michael H. Glantz.⁶ These works are partially devoted to analysis of the issues

⁶The Politics of Natural Disaster; The Case of the Sahel (New York: Praeger Publishers, 1976) (hereinafter cited as Politics of Natural Disaster...); and Desertification: Environmental Degradation in and around Arid Lands (Boulder, Colo.: Westview Press, 1977) (hereinafter cited as Desertification...).

surrounding climatic changes in the Sahel, but also assess the role of human populations in the process of desertification. Kellogg and Schneider argue that people may be playing a significant direct role in that process by contributing to, or even provoking, adverse weather patterns in the Sahel.⁷

Humans have unquestionably caused localized desertification within the Sahel by combinations of overcultivation,⁸ overgrazing⁹ and deforestation.¹⁰

These three phenomena may be alternatively viewed as failures to provide various forms of public goods, i.e., resolution of pressing land tenure problems, range management, and reforestation and maintenance of existing wood stocks. Non-development of fertile bottom lands for high-intensity production may also be conceptualized in this manner.

⁷ "Climate, Desertification, and Human Activities," in Desertification..., p. 157.

⁸ Some scholars argue Sahelian populations must be limited at all costs. Others maintain the problem is rather underpopulation. Currently, extensive cultivation of large plots has become the dominant agricultural pattern in the Sahel, replacing the intensive, continuous cultivation of small plots characteristic of the pre-colonial era. The latter pattern was a function of basic insecurity in the area. It had the very great advantage of protecting large areas of land now exposed to wind erosion by preserving much bush-land intact. The colonial peace and intensive pressure from colonial officials forcing local farmers to move into case crop production undermined these ecologically positive techniques. Those who argue the underpopulation thesis in effect suggest higher densities would force a return to intensive cultivation, in the process freeing more land for wood production. See Helen Ware, "Desertification and Population: Sub-Saharan Africa," in Desertification..., pp. 165-202, esp. 178-81.

⁹ Overgrazing would appear to be partly a function of the inroads Sahelian farmers have made on pastoralists' traditional rangeland base, as well as of increases in nomad human and animal populations, resulting from improved medical care. To make ends meet in the short run, herders often overexploit the remaining available grasses. Randall Baker, "Innovation Technology Transfer and Nomadic Pastoral Societies," in Politics of Natural Disaster..., p.179.

¹⁰ James T. Thomson, "Ecological Deterioration: Local-Level Rule-Making and Enforcement Problems in Niger," in Desertification..., pp. 57-79; and Erik P. Eckholm, Losing Ground: Environmental Stress and World Food Prospects (New York: W. W. Norton, 1976), pp. 101-13.

Related public good problems which must be considered in any thorough analysis of possible strategies for defending the Sahel against further desertification include creation and maintenance of local road networks, constitution of marketing cooperatives and credit mutuels which will function to the ultimate benefit of rural Sahelian inhabitants, adequate agricultural extension work, and functional adult literacy programs.¹¹

In most Sahelian states programs along these lines have already been launched, indicating officials in the region consider the underlying problems of manifest importance. The pressing need now is analysis of comparative successes and failures, and generation of data permitting incremental redesign of less successful programs to enhance their contribution to the overall anti-desertification effort.¹²

As I have argued with specific regard to forest conservation,¹³ success of such attempts depends critically upon local government capacities to structure frameworks for collective action, e.g., reforestation associations, and to enforce rules upon which such attempts to reorient human behavior must rely.¹⁴

¹¹Thomson, "Law, Legal Process and Development...", Chapter V for discussion of such programs in Central Niger.

¹²This is particularly important in light of the international effort now being mobilized by the International Committee for Drought Control in the Sahel (C.I.L.S.S.) and the Club of Friends of the Sahel. Club members have committed themselves to the provision of \$3 billion in aid over the next five years. Cf. Robert Trumbull, "5-Year, \$3 Billion Plan Will Bolster 7 Sub-Saharan Lands and Cape Verde," New York Times, June 3, 1977, and "\$10 bn for the Sahel," West Africa, No. 312B (20 June 1977), 1202-03.

¹³Thomson, "Ecological Deterioration...", in Desertification..., pp.57-79.

¹⁴Cf. James M. Buchanan, "Public Goods and Public Bads," in Financing the Metropolis: Public Policy in Urban Economies, ed. by John P. Crecine (Beverly Hills, Cal. : Sage Publications, 1970), pp. 51-69.

For instance, tree plantations, shelter belts and hedgerows will only contribute to environmental maintenance if they can be protected from deprivations of wood users intent upon collecting firewood, or fencing fields and gardens, or foddering livestock with foliage. User regulation in turn is only feasible when rules protecting the Woodstock and regulating its use can be enforced, under circumstances where demand can be appropriately proportioned to supply. Unless both these conditions are met, an illegal scramble for available wood resources arises when shortages are perceived, reducing both individual and community incentives to make provision for a long-term, replenishable wood supply.

To meet these conditions, some governmental unit(s) must assume the task of assuring provision. Efforts by non-local jurisdictions in Niger have frequently foundered on rule enforcement difficulties: inadequate surveillance of wood resources and non-cooperation of rural populations.

Local communities appear to be the logical units to undertake provision and protection of woodstocks because local residents have an intense interest in maintaining fuel resources, fencing materials, etc., provided they can do so through appropriate institutions at reasonable cost.

Such jurisdictions must be able to uphold rules, however. At this point, the critical role of the judicial process becomes apparent: to what extent can local communities enforce, or even formulate, adequate rules? How dependent are they upon overriding regimes in this area? Is this dependence necessary? Are there alternatives at the local level? Under what conditions can they be realized? Answers to questions such as these are critical to an understanding of the institutional conditions under which desertification can be controlled.

Frequently, local governments either lack the necessary autonomy to

produce public good related to anti-desertification efforts at that level, or require assistance from supra-village jurisdictions if reforms are to be realized.¹⁵ Thus relationships between local and overriding regimes must be carefully investigated if institutional analysis is to lead to effective alternative institutional designs.

The record to date in the Sahel of national government and donor agency attempts to create development from the top down indicates this is an exceedingly difficult task.¹⁶ Some successes, however, suggest improvements are feasible.¹⁷ But since appropriate innovations, whatever their source, almost invariably depend upon local acceptance and some measure of local initiative, attempts to evaluate innovations from the local perspective appear indispensable to accurate assessment of the overall record of activity.

DEFINITION AND DELIMITATION OF TOPIC

I have already undertaken substantial prior research on problems of development in Mirria County, Central Niger,¹⁸ and provisionally confirmed in that context a theory about the relationships among law, the legal process

¹⁵Vincent Ostrom and Elinor Ostrom, "A Theory of Institutional Analysis of Common Pool Problems," in Managing the Commons, ed. by Garrett Hardin and John Baden (San Francisco: W. H. Freeman), pp. 157-72.

¹⁶Thomson, "Law, Legal Process and Development...;" Robert B. Charlick, "Power and Participation in the Modernization of Rural Hausa Communities" (unpublished Ph.D. dissertation, Department of Political Science, University of California, Los Angeles, 1974); Marguerite Camboulives, L'Organisation coopérative au Sénégal (Paris: A. Pedone, 1967); Programme des Nations Unies pour le Développement, UPV/71/006, "Rapport au Gouvernement de la Haute-Volta sur la planification, la politique et la législation forestières," by J. Reader-Roitzsch and F. B. Zenny (Rome, United Nations Food and Agriculture Organization, 1974). (mimeo).

¹⁷For example, attempts to communally develop fertile bottom lands in the Yatenga region of Upper Volta. Personal interview, M. Salem Ouedraogo, Ouahigouya, Upper Volta, June 23, 1977.

¹⁸Thomson, "Law, Legal Process and Development..." This dissertation was based on research undertaken in Mirria County from November, 1970 to March, 1972, under the auspices of the Foreign Area Fellowship Program.

and development. That theory stresses the critical role of enforcement proceedings (rule application and adjudication) in determining the extent to which individual rural residents conclude participation in particular development activities will affect them in practice, whatever the formal promises made about particular programs. While certainty about rule structure is clearly not sufficient to promote participation,¹⁹ it is frequently neglected as a relevant variable by analysts who concentrate on economic or political factors.

The research proposed here will build on the earlier investigation in Niger. This time, however, attention will be focused specifically on public good problems directly relevant to local-level food and renewable energy resource production efforts; forest conservation, range management, bottom land development projects and pertinent land tenure problems. I will then extend the research, and subject the above-mentioned theory to comparative retesting on the same set of problems in Seguenega County, in the Yatenga Region of northern Upper Volta. In June, 1977, I undertook a brief preliminary investigation there.

COMPARATIVE RESEARCH IN NIGER AND UPPER VOLTA

Comparative analysis is clearly appropriate in the proposed study. Both county jurisdictions lie entirely within the Sahelian belt and share many common characteristics. Among these are extremely low per capita income (\$60-100/annum); mixed farming-herding economies; substantial labor migration; hierarchically-organized indigenous states which persisted into the colonial era (1897-1960); and mixed ethnic populations in which the

¹⁶William B. Harvey, "Democratic Values, Social Change, and Legal Institutions in the Development Process," in Nations by Design, ed. by Arnold Rivkin (Anchor Books; Garden City, N.Y.: Doubleday, 1968), p. 68.

sedentary element predominates but migratory pastoral peoples plan an important subsidiary role. Furthermore, both Niger and Upper Volta are ex-French colonies and have, for the most part, adopted French administrative and judicial process models. Both states are currently governed by military regimes, Upper Volta since 1966, Niger since 1974.

Notable differences exist, however, with respect to extent and degree of Islamic influence; impact of Christian missionary efforts; survival of patterns of community organization based on indigenous religious beliefs; and the administrative style exhibited by civil servants charged with organizing and implementing development efforts in the two study areas. Finally, institutional forms within which development strategies are organized vary substantially. Niger has relied heavily on nationally-controlled technical service programs (agriculture, livestock, cooperatives, adult literacy, rural mobilization, etc.) and loose state- and county-level coordination. Upper Volta, by contrast, has emphasized creation of public regional development corporations which are formally accorded legal predominance in organizing and promoting development activities.²⁰

METHODOLOGY

To establish the analytic framework for this study I use John R. Commons' concept of institutions.²¹ He characterizes all institutions, political, economic and moral, as going concerns, or collective undertakings by groups

²⁰République de Haute-Volta/Présidence de la République, Decret No. 75 [114]PRES/PL-1/ET/MF portant Statuts Types ORD [Decree law establishing model constitution for Regional Development Organizations.] Seguenega County in one of six within the jurisdiction of the Yatenga RDO.

²¹Legal Foundations of Capitalism (Madison, Wis.: University of Wisconsin Press, 1959). First published in 1924: New York, Macmillan.

of individuals. Members organize their behavior by reference to working rules of the going concern. Taken together, these rules constitute an authoritative system of rights, duties, liberties and exposures which establish, respectively, what actions particular individuals in the concern can, may, must and must not undertake. Working rules are authoritative because the collective power of the going concern may be mobilized if necessary to enforce members' rights and liberties, and to see they fulfill their duties. The rules also define each individual's exposures, i.e., the areas where he is subject without legal recourse to the damages which conduct of other members of the concern may inflict upon him. Given the existence of different offices and positions in any institution, endowed with different sorts of powers and liabilities, it is evident that particular individuals in the going concern exercise differential capabilities for action.

Using this concept of institutions one can analyze any village or local community as a going concern.²² Working rules of the village going concern, as well as changes in them, can be determined by the "trouble-case" method of analysis which Karl N. Llewellyn and E. Adamson Hoebel pioneered as a primitive law research technique.²³ It consists of in-depth interviews with informants selected for their knowledge of the history and resolution of trouble-cases arising in the interactions of members of the going concern.

In Niger, I will again rely solely on Hausa in interviewing; in Upper Volta, I will begin using French as the research vehicle and progressively switch to More^h as my competence in the Mossi language increases.

²²Research may reveal that the village is not an autonomous "concern," that is, that intra- or extra-village regimes dominate some or all aspects of decision making within the local arena. Where such is the case the analyst must carefully explore implications for village capacity to deal authoritatively with public good problems.

²³The Cheyenne Way: Conflict and Case Law in Primitive Jurisprudence (Norman: University of Oklahoma, 1941).

Given a fairly substantial body of case materials, centering on administrative, land and family law matters, one can abstract from these materials rules and test situations which define clearly capabilities and weaknesses of local (and overriding) regimes in dealing with specific types of public good problems as they currently confront the particular village under study. If no extra-village regimes have tried to implement institutional solutions to a given problem, strengths and weaknesses of village organization can be considered in isolation.

In the Sahel, however, overriding regimes (regional development corporations and regional or national technical services) now often assert authority over public good problems such as reforestation and development of agricultural productivity. They will increasingly do so as more funds become available through efforts of the Club of Friends of the Sahel. The impact of such extra-village activities can likewise be accurately gauged through the trouble case technique of analysis. Processes of dispute resolution reveal where and how the formal goals of such programs are being effectively attained. Where they are not, cases permit the analyst to identify weaknesses in institutional design and to judge the feasibility of possible reforms.

In Niger, I will concentrate my analysis of the three villages originally studied. All three are Hausa-speaking and located within a single district jurisdiction in Mirria County. They thus share a common set of overriding regimes. However, they are characterized by significant local constitutional and ethnic differences. The Hausa farming village has a "single sovereign" leadership structure. The Barebari farming village exhibits a bi-factional constitution, and the Bouzou agro-pastoralist community a highly egalitarian constitution. In Mirria County, these differences do not exert as much influence as I originally expected; this reflects the extent to which

decision making in all three villages is dominated by overriding regimes. This fact is crucial, I would argue, to the explanation of local impotence in the face of public good problems related to stemming desertification which are not per se insoluble, given local resources. What is missing is a capacity to mobilize them.²⁴

In Seguenega County, Upper Volta, I will adopt the same research strategy of selecting three villages exhibiting local institutional differences but sharing a common set of overriding regimes. I will then seek to assess village weaknesses, strengths, and interactions with supra-village regimes, particularly the Yatenga Regional Development Corporation.

Finally, the primary data from both Niger and Upper Volta will facilitate a comparative assessment of current alternative approaches to critical anti-desertification public good problems in the two states. This analysis in turn may be expected to lead to some incremental reform proposals.

²⁴Thomson, "Ecological Deterioration..." in Desertification..., pp. 57-79.